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Geneva, February 12th, 1930.

LEAGUE OF NATIONS

HEALTH ORGANISATION

PROPOSALS OF THE NATIONAL GOVERNMENT OF THE  
REPUBLIC OF CHINA

FOR

COLLABORATION WITH THE LEAGUE OF NATIONS  
ON HEALTH MATTERS.

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# PROPOSALS OF THE NATIONAL GOVERNMENT OF THE REPUBLIC OF CHINA

FOR

## COLLABORATION WITH THE LEAGUE OF NATIONS ON HEALTH MATTERS.

MEMORANDUM ON CONSULTATION WITH THE NATIONAL GOVERNMENT  
OF THE REPUBLIC OF CHINA, WITH NOTES ON THE PROPOSED COLLABORATION.

### ORIGIN OF THE MISSION.

It will be remembered that, during 1922 and 1923, Dr. Norman White undertook an enquiry into the prevalence of epidemic disease and port health organisation in the Far East as the result of a decision of the Health Committee, adopted on the motion of Professor Miyajima:

“ . . . to collect information regarding the incidence of epidemic diseases, especially those of international importance, in important ports, and the measures taken to prevent the transmission of these diseases to other ports ” (Health Committee Session of August 29th, 1922).

In his report (document C.H.130), which contains detailed information on these subjects for the ports of Canton, Shanghai and Newchwang in China, and general information concerning Manchuria, he gave an outline of the then existing Sanitary Administration in Peking:

The influence in China of Dr. Norman White's studies was considerable. As his surveys and proposals had led to the establishment of the League's Far-Eastern Epidemiological Bureau at Singapore, it became evident that the League was taking real interest in the health problems of the Far East.

A group of Chinese medical leaders and their foreign friends in Peking advised the Central Government, at the end of 1925, to invite the continuation of the survey begun by Dr. Norman White two years previously, in the hope that the creation of a skeleton National Quarantine Service might be recommended, and that it would serve as a nucleus for the setting-up of a modern public health service.

The Medical Director, who was visiting Japan during the “interchange” in 1925, was semi-officially asked to come to Peking to explore the ground. He reported to the Health Committee on April 26th, 1926 (document C.H.433), on the discussions he had had with the Minister of the Interior (whose Department included a Central Sanitary Bureau), with other State officials and with medical leaders. No official action was taken during the succeeding period of civil war, but correspondence continued with the group which initiated the project.

When this group was called upon, in October 1928, to organise the Ministry of Health of the National Government of China at Nanking, it decided to avail itself of the experience of the League's Health Organisation.

In January 1929, the Medical Director was appointed member of an International Advisory Council of Three, set up by the Ministry of Health, and was invited to come to Nanking as soon as possible to discuss plans for co-operation. Official correspondence ensued and resulted in a telegraphic request addressed to the Secretary-General of the League of Nations by the Foreign Minister of China on September 14th, 1929, for the “despatch of a sanitary mission from the

Health Organisation of the League to make a survey on port health and maritime quarantine". The Council having declared, after examination of the request, that full assistance should be given to China in her efforts for her development, the Secretary-General, in consultation with the President of the Health Committee, instructed the Medical Director and Doctor F. G. Boudreau of the Health Section to proceed to China in order to discuss with the competent authorities a detailed project to be submitted to the Health Committee.

SCOPE OF THE ENQUIRY: CORRESPONDENCE WITH THE NATIONAL GOVERNMENT OF THE REPUBLIC OF CHINA, AND THE ACTION TAKEN BY THE HEALTH COMMITTEE AT THE SPECIAL SESSION AT GENEVA CONVENED FOR THIS PURPOSE, MARCH 5th TO 8th, 1930.

On our arrival in Shanghai, on November 9th, 1929, we were informed that the Minister of Health desired us to undertake, in addition to a preliminary survey of the quarantine arrangements at certain ports, and an examination of steps to be taken for the establishment of a National Quarantine Service, a general study of the organisation and working of medical and sanitary institutions in various special municipalities and administrative divisions, with particular reference to medical education, to the training of sanitary personnel, to the status of a provincial health organisation, to the work of the National Epidemic Prevention Bureau, and to the problem of the control of cholera and smallpox in the Shanghai area.

We were cordially welcomed at Shanghai by representatives of the Chinese Government, who assured us of their wish to afford us every facility in our work. A detailed memorandum on health organisation in China,<sup>1</sup> prepared for us on the order of the Minister of Health by an official of that Ministry, was presented to us, and arrangements were made for our transport. Members of the staff of the Ministry of Health were detailed to accompany us throughout our stay in China. The Minister of Health himself accompanied us whenever his duties permitted him to leave Nanking. Provincial and municipal officials gave us a warm welcome and spared no pains to make our stay as profitable as possible. If, in spite of the civil war and the disturbances incident to the political stabilisation of a large country after a successful revolution, we were able to examine a wide range of medical and public health developments, and to secure a large amount of useful information on these subjects, credit must be given to those officials of the National, Provincial and Municipal Governments who left no stone unturned in their efforts to assist the purpose of our visit.

As soon as possible after our arrival in Shanghai, we proceeded to Nanking<sup>2</sup>, the capital, where we were received most hospitably by the Government. The Minister of Health prepared an itinerary for the Mission, which he considered would enable us to secure the largest amount of information on health conditions in China in the limited time at our disposal. During our stay in Nanking, we had the opportunity of numerous conferences with the Minister of Health and his technical assistants, who furnished us with information concerning Chinese health problems and the methods adopted or planned for their solution.

Before we left China, the following letters were received from the Minister of Health and the Minister of Education, which contain the text of the proposals of the National Government of the Republic of China for co-operation with the League of Nations in health matters:

" Ministry of Health,

" Nanking, December 26th, 1929.

" In acknowledgment of your letter of December 16th,<sup>3</sup> confirming your understanding of our proposals for collaboration, I am pleased to be able to inform you that this programme was approved by the Government on December 24th, and that steps are being taken to secure an extraordinary appropriation for the establishment of the various institutions necessary for its success. I am attaching the approved proposals for you to present to the League of Nations Health Committee for confirmatory action. I am seeking the necessary authorisation to attend the forthcoming session of the Health Committee at Geneva, when the plan is coming up for discussion.

" May I avail myself of this opportunity to express the appreciation of the Government for the spirit in which the League acceded to its invitation to send your Mission to China. The members of the Government, most of whom had had opportunities of discussing pertinent phases of the proposals with you, expressed not only admiration for the manner in which the Mission had acted upon our specific suggestions, but felt that, almost as important as the results of your visit, has been the increased appreciation of the League itself. To the Mission, and especially to yourself, the Ministry of Health wishes to record its appreciation for the very signal service that has already been rendered.

<sup>1</sup> " Health Organisation in China, and Brief Surveys of the Special Municipalities of Canton, Peiping, Shanghai, Nanking, Tientsin and Hankow ", by Tsefang F. HUANG, M.D., Counsellor, Ministry of Health.

<sup>2</sup> See itinerary of Mission, Annex 3.

<sup>3</sup> See Annex 1.

" The Ministry of Health would gladly follow your suggestions as to the designation of medical and health leaders in China for association with specific studies engaged upon by the League and would recommend that Dr. F. C. Yen, the Dean of the Central University Medical College, be associated with studies of the Commission on Education in Hygiene and Preventive Medicine; Dr. Robert Lim, Professor of Physiology at the Peiping Union Medical College, and President of the National Medical Association, with the work of the Health Committee on vitamins and cognate subjects; Dr. Tsu Min Yi, Member of the Central Executive Committee, with the studies on physical education; and Dr. Shisan F. Fang, former Director of the National Epidemic Diseases Prevention Bureau, with the work of the Commission on social medicine.

" The Government has learned with satisfaction of the appointment of one of the Ministry's officers to the Health Section of the Secretariat, and more especially that you yourself could visit China periodically.

(Signed) J. HENG LIU."

*" Proposals for Collaboration with the League of Nations Health Organisation.*

" 1. The presentation to the Government of the proposals of the Ministry of Health for collaboration with the League of Nations Health Committee was made the occasion for re-defining the general scope of the work of the Ministry, including the manner in which the League's assistance would contribute to its success. It was pointed out that, before effective nation-wide results could be achieved in such fields as child, school, and industrial health, social hygiene, vital statistics, general sanitation, epidemiology and communicable diseases control, etc., there were two necessary pre-requisites: first, the development of administrative principles best adapted to local means and conditions and, second, the provision of facilities for training personnel in the different branches of medical practice.

" 2. While the Ministry, within the limitations of the reconstruction period, is undertaking the functions of a central health authority in regard to initiating policy and activities in the above general fields of public health, it feels that collaboration of the League at this time would prove invaluable in the following six activities:

" (a) The previous decision of the Government to transfer the Quarantine Service, now administered by the Ministry of Finance, to the Ministry of Health, in concurrence with established precedent, led to the request for the League's collaboration in obtaining the benefit of the experiences of health services in other countries and in accelerating the building-up of confidence in the reorganised technically improved port health administration. It is requested that the Health Organisation should study, in conjunction with the Transit Organisation of the League, the steps that should be taken in the transfer and reorganisation of the present Quarantine Service. It is understood from the Director of the Health Organisation that a scheme may be elaborated during 1930 and that the preliminary study begun by the present Mission will be completed this year. The Ministry hopes also to participate in the forthcoming Port Health Officers' interchange and for two or three officers to be trained abroad by the League for responsible posts in the reorganised service.

" (b) The Ministry of Health has decided to use its technical headquarters staff for field activities and to begin by establishing a central field health station as the nucleus of an eventual national field health service. The important rôle that will be played by this central station is appreciated and, as such, even the fundamental activities will take time to build up. Collaboration is desired in drawing up the detailed plan for this station; in providing facilities for study abroad of officers selected for important position in this station and the association of an expert from the Health Organisation during the initial stage of its organisation and development.

" (c) In view of the necessity of providing a national institution for undergraduate instruction and for post-graduate training, as well as to create national traditions in administering such institutions, the Government has decided to promote the establishment of the First National Hospital.

" (d) While the central field health station and the First National Hospital will serve the purpose of establishing the principles of fundamental health activities for the country, and while, already, institutions elsewhere have undertaken health work on a more limited scale, it is felt that the elaboration of a provincial health administration should be taken up for serious study, and the Government has decided on collaboration with one of the provinces where conditions are favourable. It is already the intention of the Chekiang Government to establish a provincial hospital, which will also be utilised as a base for the development of preventive medical activities. It is hoped the latter will be extended gradually to the districts of the province, and also throughout the country by utilising existing educational institutions as bases for public health work.

" Assistance is desired in planning the first National and Chekiang Hospitals, in providing facilities for their senior administrators to study abroad and especially in advising as to the gradual extension both of the preventive activities of the Chekiang unit as well as in the extension of the activities to other areas.

" (e) The Ministry of Education regards medical education as a major question which requires urgent reform in providing suitable facilities both in regard to undergraduate and post-graduate instruction. It is hoped to secure the collaboration of the competent commission of the Health Organisation in preparing a memorandum on the recent progress in the reform of medical teaching; for the provision of facilities for a study tour of the officer who is to have charge of post-graduate instruction, and for the delegation to China, for a period of some months, of a League expert to advise with the National Commission on Medical Education of the Ministry of Education.

" (f) While the foregoing will build up the foundations for a modern health administration, there is the immediate problem of smallpox and cholera control in Shanghai. During the stay in China of the League's Mission, the Ministry invited the collaboration of the Health Services of the two Foreign Settlements, and it is hoped it may be also possible that, as a member of its Advisory Council, the Chinese Government may secure the collaboration of the Far-Eastern Bureau of the League. Collaboration is also desired in a joint epidemiological study of the cholera and smallpox situation in Shanghai, and the services of the Director of the Far-Eastern Bureau for a time during the application, in 1930, of control measures.

" 3. It is therefore hoped that it may be possible for the League to provide advice and assistance along lines on which it has been made available to other countries, namely:

" (a) The technical collaboration of the Health Organisation and its commissions, as well as other technical organisations of the League, for consultation in drawing up specific health schemes;

" (b) To make available opportunity for participating in the advantages offered through the League interchanges of technical officers, and study fellowships;

" (c) Collaboration in the establishment and the development of the central field station by stationing a technical officer of the Health Organisation in an advisory capacity during the initial stage;

" (d) Collaboration with the Commission on Medical Education of the Ministry of Education. A request from the Minister of Education is attached herewith.

" 4. It is especially desired that the services of the Health Organisation for the study of these problems, as well as in a general advisory capacity, will be available through an acceptance by the League of this Government's invitation for continued collaboration.

" Nanking, December 24th, 1929. "

" Ministry of Education,

" Nanking, December 27th, 1929.

" Realising that the subject of Medical Education in China needs to be studied thoroughly so that standards may be improved and a sufficient number of competent physicians trained to meet the medical needs of the country, the Ministry of Education, with the collaboration of the Ministry of Health, is organising a National Commission on Medical Education.

" We request that the Health Organisation of the League will give this Commission assistance in:

" (a) Supplying information on the programme of similar National Commissions in other countries; and

" (b) Collaboration of the League's Commission on Education in Hygiene and Preventive Medicine, which perhaps may be able to delegate an expert for several months in the coming year to China to work in conjunction with our National Commission.

(Signed) CHIANG MON-LIN,  
Minister of Education."

This official correspondence respecting the proposals of the National Government of the Republic of China, together with the present report, were communicated on February 13th, 1930, to the members of the Health Committee which was convened in special session at Geneva on March 5th, 1930.

The National Government of the Republic of China was represented at this session by Dr. Woo KAISENG, Director of the Permanent Bureau of the Chinese Delegation to the League of Nations at Geneva, accompanied by Dr. L. C. YEN, Director of the Medical Administration Bureau of the Ministry of Health, Nanking.

The Health Committee adopted the following resolutions which will be presented to the Council of the League of Nations during the forthcoming session in May 1930:

A. "The Health Committee,

"After studying the proposals of the National Government of the Republic of China for collaboration which it desires with the League of Nations on health matters, and having examined the report of the Medical Director concerning the Mission carried out on the invitation of the Government of China;

"Approves the report as a whole and expresses appreciation of the attitude adopted by the Government of China."

"The Health Committee,

"Considering that the Council of the League of Nations has expressed the wish that all necessary assistance should be afforded in the development of China,

"That the collaboration requested is entirely in harmony with the programme and aims of the technical organisations of the League of Nations, and, while fully appreciating the difficulties of the task with which it would be entrusted and the length of time required to accomplish it;

"Recommends to the Council the approval of the entire programme of collaboration presented by the Government of China as set forth in the report of the Medical Director, and requests the latter to make arrangements for providing the assistance of the Health Organisation in giving effect to that programme if approved by the Council."

B. *Re-organisation of the Quarantine Service of the Chinese Ports.*

"The Health Committee,

"After study of the proposals of the National Government of the Republic of China, concerning the collaboration of the League of Nations in the re-organisation of the quarantine services of the Chinese ports, and on the advice of the Commission for Quarantine Measures in China nominated during the present session:

"1. Accepts the proposals made by the Chinese Government to obtain the benefit of the experiences of health services in other countries in the re-organisation of the present quarantine services.

"2. Approves the arrangements proposed by the Health Section that Dr. Park should visit China forthwith in order to complete the survey which has already been begun, and report to the Commission thereon at an early date. In his report, Dr. Park should give special consideration to the possibilities of the satisfactory application of the provisions of the International Sanitary Convention of 1926.

"3. Notes that the Commission has given Dr. Park certain guiding lines for this survey. These include the sanitary equipment of ports; the nature of the action to be taken against the importation and exportation respectively of infectious diseases and the measures needed to deal with the special conditions of coastal traffic.

"Notes that, on the completion of Dr. Park's survey, he will submit proposals for consideration by the Commission regarding the scheme to be submitted to the Chinese National Government.

"4. Requests that the Commission, in so doing, should confer with any experts who may be delegated by the Communications and Transit Organisation of the League, in conformity with the request of the Chinese Government, before submitting the scheme to the Health Committee."

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## Chapter I.

### NOTES ON PUBLIC HEALTH AND MODERN MEDICINE IN CHINA.

It would be presumptuous on our part to pretend that this report represents anything more than notes on these proposals and observations on the activities we were asked to visit. Nothing like a survey of preventive medicine has been attempted or could have been attempted in the time and with the facilities at our disposal.

Nevertheless, we are assured by our Chinese colleagues that the indications furnished by these observations and the conclusions which we have reached in agreement with those colleagues, would not have been different had we travelled more extensively or examined more closely the development of modern medicine and public health in a wider range of provinces and municipalities. Modern medicine has only recently gained a precarious foothold in China. Preventive medicine is only beginning to extend its beneficent influence from the few centres in which it has found a soil suitable to its growth. We are told by our Chinese friends, who have had the best opportunities of acquainting themselves with actual conditions, that the visits we have made and the institutions and work we have studied comprise a very large proportion of all such institutions and work in China. We, in the West, have been familiar with countries in which modern medicine is taken for granted—its benefits have been present for generations. In China the case is quite different, for there comparatively young men can remember the time when modern medicine was first introduced in the larger centres, and the greater part of the population do not to-day recognise the existence of such an art.

#### MODERN MEDICINE, HOSPITALS AND PUBLIC HEALTH WORK IN CHINA.

In order to understand the medical and public health problems of China, it is necessary to realise that, even in those centres where modern medicine has gained a foothold, the large majority of the population seeks medical relief, not from its practitioners, but from the vastly more numerous practitioners of empirical medicine, who, at their best, may not fall far short of the modern graduate in the relief of pain in cases not requiring surgical intervention and, at their worst, possess the advantage of a long—though weakening—tradition and place in the social structure of the community.

This is not the place to describe the practice of so-called empirical medicine in China, even if sufficient information were available. Nevertheless, a few general statements on this subject are essential to our understanding of the difficulties facing modern medicine in China to-day.

We visited a school where empirical medicine is taught, and we inspected a few hospitals maintained by graduates of such schools. The course was said to last four years. Practically no equipment for teaching purposes was to be seen except a few anatomical charts. These schools maintain hospitals, however, ostensibly for teaching purposes. There is apparently no difficulty in securing students, and patients come willingly to the wards and out-patient departments on a paying basis. There was an X-ray apparatus in one of these hospitals. The pharmacy was, in each case, an orderly institution, and it must not be supposed that the medicines are without virtue. Ephedrin was developed from a preparation long used by the practitioners of empirical medicine. Among the native preparations there must be a number possessing anodyne properties, and it is said that quinine is dispensed freely by native pharmacists.

The school of medicine is, however, a new development in empirical medicine, a majority of the practitioners having been trained by the apprenticeship system, and mention is made of it here simply to emphasise that modern medicine must overcome a system willing to utilise certain of the weapons of its adversary in the form of organised instruction, hospital dispensaries and pharmacies dispensing modern drugs as well as the older preparations.

Against this system must be set the few thousand practitioners of modern medicine<sup>1</sup>, the few hundred modern hospitals, the small percentage of the population who appreciate the advantages of a new method still bearing the stamp of foreign influence.

Empirical medicine is said to have reached its height many centuries ago and to have steadily declined since. It is fighting a losing battle with modern medicine because of its disbelief in surgery, its lack of knowledge concerning midwifery, and the success of modern medicine in such fields as the treatment of eye diseases.

The practitioners of empirical medicine correspond to the quacks in Western countries. In China, as in the West, resort is had to quack medicine in some instances even by educated and highly placed officials. The difference between China and the West in this respect is that, in China, quacks are numerous and well distributed, whereas modern practitioners are few and concentrated in a few large centres.

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<sup>1</sup> An official of the Ministry of Health estimates that there are approximately four thousand medical graduates in China.



Our Chinese colleagues informed us that the small army of Chinese practitioners of modern medicine is split up into a number of groups, according to the country where their training was received. Thus, there is a group of students returned from England, another from France, another from America, Germany, Japan, etc. Even in the case of graduates of medical colleges in China, these, as a general rule, have received their training in French or in English, or in German, and quite naturally tend to associate themselves with others of the same language group. For medical instruction is seldom given in Chinese for a variety of reasons:

- (1) A very large majority of the medical schools are in the hands of foreigners, principally missionaries;
- (2) Even in medical schools controlled by the Chinese the majority of the important chairs are frequently held by foreigners;
- (3) Medical textbooks in the Chinese language are few;
- (4) The official Chinese language is said not to contain a sufficient number of technical terms.

Hence in medical discussions and professional conferences the language employed is frequently the one in which the students were trained. This has had the very natural tendency to split the practitioners of modern medicine into language groups, and differences of standards and conditions in the various countries of training have accentuated this tendency so that there are a number of medical associations, several of them national in scope, corresponding to the different groups. The small number of modern nurses is split up into similar groups.

The necessity of resisting this tendency and of uniting in a common effort has been fully realised by the leaders of modern medicine in China to-day. During our visit, an attempt was made to unite the most important medical associations into a national society, representative of all the groups, for the purpose of defending their professional interests.<sup>1</sup>

That something more than the establishment of a national association was needed did not, however, escape our colleagues in the Ministry of Health. It is their belief that a real merging of the groups will only result from their participation in a joint effort on a scale big enough to appeal to all, and it is their hope to link up this effort with a scheme for the provision of post-graduate medical instruction, the medium of instruction being the Mandarin language.

Further information on problems of medical education will be found under the proper heading in this report. Here, these general statements are intended only to illustrate the situation facing colleagues whose duty it is to provide for a measure of health protection in China to-day.

Practitioners of modern medicine require hospitals in which to develop their art, and hospitals exist in China, particularly in the larger centres of population, although their number is woefully inadequate. The first hospitals were missionary enterprises; the pioneer of these (at Macao) dates back to 1825. The first modern-type hospital in Canton was established in 1865 and is still operating. But these two are exceptions; the institution of the modern hospital in China is very recent. Besides the missionary hospitals there are public and private institutions of various types — some maintained by municipalities, others by medical schools, a few by the Plague Prevention Service in North Manchuria and several by the Army. A comparatively few, our colleagues inform us, have been built and are being maintained and administered solely by Chinese doctors. The handicap of a shortage of hospital beds of an extent unprecedented in Western countries further ties the hands of those who practise modern medicine, as well as our colleagues who occupy responsible posts in the National, Provincial and Municipal Health Services.

The number of hospital beds per unit of population in China is given in a volume on "China and Modern Medicine", written by Dr. Harold BALME, and published in 1921 (United Council for Missionary Education). These data relate to 1920.

Province	One bed per unit of population
Fukien . . . . .	9,210
Kiangsu . . . . .	9,240
Chekiang . . . . .	9,850
Kwantung . . . . .	11,940
Manchuria . . . . .	20,100
Chihli . . . . .	20,130
Hunan . . . . .	23,700
Shansi . . . . .	31,130
Hupeh . . . . .	36,590
Shantung . . . . .	38,240
Honan . . . . .	42,550
Kwangsi . . . . .	44,000
Szechuan . . . . .	58,180
Anguei . . . . .	70,800
Kurochow . . . . .	76,500
Shensi . . . . .	81,250
Kansu . . . . .	86,540
Kiangsi . . . . .	151,600
Yunnan . . . . .	246,490

<sup>1</sup> A conference held in Peiping in January 1928 was the first at which all groups were represented, and the steps taken by that Conference look forward two years hence towards amalgamation into one association.

These figures must be contrasted with conditions in the United Kingdom, where there is one bed in a voluntary hospital for one in every six hundred of the population, not including the large number of additional beds provided by the Poor Law Infirmaries (*idem*).

Since 1920, a number of hospitals have undoubtedly been constructed, but a much larger number have been closed. For instance, the *China Year-Book* for 1929-30 is authority for the statement that, in 1927, 33.3 per cent of the missionary hospitals in the south had been closed.

Hospitals in China are, as a rule, in foreign hands; they are directed, controlled and frequently financed by non-Chinese. This does not mean that Chinese doctors are not employed, for the majority of the subordinate staff is frequently Chinese. But the medical direction of hospitals is not in their hands, and there are only a handful of Chinese doctors in China to-day who have had experience as the administrative heads of hospitals.

If there is a dearth of hospitals in China, the absence of asylums, leprosaria, sanatoria and other special institutions is even more striking.

Our colleagues in the Ministry of Health are facing this situation with resolute determination. They have decided to establish certain hospitals at once, and to utilise them for the training of hospital staff. Beginning with two large hospitals (one financed by the Provincial Government), they hope to continue in other provinces and at other centres, so that, presently, their staff will acquire the necessary experience in hospital administration, and their people will become accustomed to the benefits of hospitalisation.

It was pointed out to us that, some time before, during and after the Old Chinese New Year (now abolished by Decree of the National Government), the majority of beds in even the best and longest-established hospitals were empty, all patients able to be moved insisting on spending these holidays at their homes.

It is also the custom in China for the patient in hospital to be accompanied by a servant or member of his family, who frequently acts as nurse in the absence of trained nursing staff, and visiting is much more common than in Western countries. Undue restriction of these customs tends to prevent popularisation of the modern hospital system, and our colleagues are faced with the nice task of striking the balance between the long-established habits and customs of the people and the requirements of modern medical institutions.

#### PROBLEM OF MEDICAL RELIEF IN CHINA.

If, in these opening paragraphs, we appear to have over-emphasised the problems of modern medicine and its institutions it is because our colleagues have insisted on the magnitude of their problem of medical relief.

Reference has been made to the scarcity of modern doctors and hospitals and to their concentration in the larger centres. This problem is further complicated by the size of the country, the density of the population, the scarcity of modern methods of communication and transport and the economic and political instability of recent years. The few railway lines offer facilities of transport only between the larger centres. Roads suitable for motor travel are few; the total mileage is said to be two thousand.<sup>1</sup> The Chinese have long been accustomed to utilise their magnificent waterways for travel, but these fall far short of the requirements for health work and medical relief. Even in some of the larger cities transport is slow and difficult. For example, in Canton, the sedan chair was the only vehicle able to penetrate the narrow streets of the old city until recently when a system of broad modern thoroughfares was constructed. Now the tracks for a street railway system have been laid and autobuses give regular services.

In the rural districts, resort must be had to rickshaws, and even these must be replaced by wheelbarrows in the rainy season. One of the obstacles facing the staff of health centres, for example, is the difficulty of reaching the people, and the time consumed by archaic methods of transport.

No reference has been made to the sanitary problem in China. Public water supplies exist in a handful of cities—Shanghai, Peiping, Tientsin, Tsingtao, Hankow, Harbin, Mukden, Amoy and Canton. Plans for such supplies have been made in Nanking, Hangchow and Changsha. Even in those cities where public water supplies exist, the service is not extended to the whole population, and the quality is not always above suspicion. Systems of sewerage are restricted to a still smaller number of cities, and these are very incomplete. The vast majority of the population uses polluted water and enjoys none of the sanitary advantages known to Western civilisation.

Faced with these conditions, and with the small staff at its disposal, the Ministry for Health has decided wisely to concentrate on a few activities in three or four districts, and has asked for the co-operation of the Health Organisation of the League on these few activities in which there is reasonable hope for success in the not-too-distant future.

The Ministry realises the impossibility of drawing up and carrying out a general programme of sanitary reconstruction in China at the present time. There must be a long period devoted to fact-finding and to acquiring experience before sufficient information will be available upon which to base a plan of work.

By concentrating for a few years on a few basic activities and on gathering facts, the Ministry hopes to progress slowly towards the period when the methods of solving its most baffling problems, those of sanitation and modern medicine, will become apparent.

<sup>1</sup> There are said to be 7,000 miles of railroad and 20,000 miles of roads suitable for motor traffic, but 90 per cent of the latter consists of graded dirt road, only 2,000 miles being macadamised.

In applying its present programme, the Ministry enjoys the moral prestige which is traditionally associated in China with the Central Government. Even in those provinces in which the present regime is looked upon with disfavour, we were informed that the technical advice of the Ministry would be respected and its support would lend strength to the efforts of the local health authorities.

Under these circumstances the Ministry can hope for the fullest support from the local authorities with whose co-operation it proposes to carry on a few activities of fundamental importance.

#### THE MODERN HEALTH MOVEMENT IN CHINA.

As far as we could gather from the information placed at our disposal, the modern health movement in China began in 1912, and owed its origin to the extensive epidemic of pneumonic plague which occurred in Manchuria in 1910. At that time an Imperial Decree was issued requiring the Ministries of Foreign Affairs, Civil Affairs and Communications to take joint action in the application of preventive measures. A Plague Prevention Bureau was established at Peking, and the Ministry of Civil Affairs organised a Public Health Commission composed of the leaders of modern medicine in Peking. Quarantine measures were applied for a time in the various ports and railroad centres through which the disease might spread. Most important of all, a group of medical students, under the leadership of Dr. Wu Lien Teh, was sent to Harbin to take charge of control measures. An international conference on plague was held in Manchuria to devise methods for the prevention of similar epidemics in the future.

This epidemic resulted in the organisation of the North Manchurian Plague Prevention Service with headquarters at Harbin. This service was placed under the Ministry of Foreign Affairs at the time it was founded and it remains under the Ministry of Foreign Affairs in the present Nationalist Government. The Minister of Health plans to have it transferred to his Ministry. It has survived all the political upheavals which have passed over the country since its establishment some seventeen years ago (1912). Its staff has carried on important studies relating to the epidemiology of plague and made many contributions to our knowledge of the disease. Full information concerning its work may be found in the reports published annually and in the contributions of members of its staff to scientific journals. We did not have occasion during the present visit to study the work of the North Manchurian Plague Prevention Service, and it is only necessary to point out here that it has a well-equipped laboratory, a trained staff of laboratory workers and epidemiologists and six hospitals located at strategic points in North Manchuria.

The influence of this service has been of value in a variety of directions, and it is an outstanding example of the stability which a purely technical organisation may enjoy in China in despite of political changes and the unsettled conditions incident to civil war.

The Organisation of the National Epidemic Prevention Bureau in 1918 was the next important step marking the growth of the modern health movement in China. Public concern had been aroused by the repeated epidemics of cholera, plague, diphtheria and smallpox, and, in 1916, the Ministry of the Interior had drawn up regulations governing the methods of controlling epidemics. An advisory committee, composed of the leading Chinese and foreign physicians in Peking was appointed to advise the Minister, and it was largely due to their efforts that the National Epidemic Prevention Bureau was finally organised.

The spread of pneumonic plague in 1916 from Mongolia to the adjacent provinces in North China and the heavy toll of lives resulting (13,000) further increased public and official alarm.

This Bureau began to function in 1919, its staff being engaged, on the one hand, in the manufacture of sera, vaccines and other biological products and, on the other, in experimental diagnostic and preventive work and general administration. One of the most important tasks undertaken by the Bureau was the systematic collection of information concerning the prevalence of epidemic diseases from all the provinces of China. After the organisation of the Eastern Bureau of the League of Nations at Singapore, this information was transmitted regularly to that Bureau and published for the benefit of Health Administrations in the Far East.

The lack of information concerning the occurrence and prevalence of communicable disease is one of the greatest problems confronting the health authorities of China. The leaders of the National Epidemic Prevention Bureau realised fully the need for all possible information on the movement and prevalence of the diseases which it was their business to control. They determined to levy on every possible source of information, and turned naturally to doctors practising modern medicine, to missionary hospitals and to any other hospitals conducted according to modern methods. It was naturally impossible for such doctors and such hospitals to furnish exact figures concerning the incidence of disease in a province with a population of thirty or forty millions of people. All they could do, all they were asked to do, was to give their impressions, based on their practice, their observation, and their treatment of cases in the hospital, as to whether a particular disease was sporadic, prevalent or epidemic.

By utilising all information from these sources, the National Epidemic Prevention Bureau was able to secure a general idea of the movement and prevalence of epidemic diseases throughout the country. It is true that this information was based on a comparatively few observations and gave no indication of the actual number of cases, but it was far in advance of anything that had been done before in China along this line, and it provided important indications of the public health needs of China and of the problems which most pressed for solution.

The National Epidemic Prevention Bureau, with headquarters at Peking, continued to function along the lines indicated above until the present Ministry of Health was organised at Nanking. It has now been placed under the Central Hygienic Laboratory of the new Ministry as the branch responsible for biological production and research, while the chemical and pharmacological laboratories will be located elsewhere.

## INFLUENCE OF RETURNED MEDICAL AND PUBLIC HEALTH STUDENTS.

The National Epidemic Prevention Bureau and the other health agencies mentioned in this report could not have attained the measure of success which crowned their efforts without the services of technical men who had been given the opportunity to study public health and hygiene abroad and at home. Some of these had taken public health degrees, others had studied in famous institutes, and still others had undergone practical training in the field abroad. In China itself an excellent course in hygiene and public health has been given for some years at the Peking Union Medical College, and the Health Station or Demonstration maintained by that school in co-operation with the National Epidemic Prevention Bureau has furnished a useful field for training students of public health, be they medical undergraduates, nurses in training, or midwives. The influence of a growing number of medical graduates trained in public health and hygiene resulted undoubtedly in the creation of a national department of health in the Ministry of the Interior, in the establishment of health bureaux in various municipalities and provincial centres and, finally, in the organisation of a Ministry of Health at Nanking in November 1928.

### THE MINISTRY OF HEALTH.

The Ministry of Health is one of the eleven Ministries now under the authority of the Executive Yuan, or Council, which is the highest executive authority of the Government. There are four other Yuans, or Councils, in the Central Government.

The Legislative Yuan is the highest legislative authority; the Judicial Yuan is the highest legal and judicial authority, and the Examination Yuan is the supreme authority in charge of the national civil service. The Control Yuan is the highest supervisory organ and is vested with the powers of impeachment and auditing.

The Ministry of Health is divided into five departments, each headed by a Director:

- (1) Department of General Affairs (Secretarial);
- (2) Department of Medical Administration (hospitals, pharmacies, physicians, training, propaganda, etc.);
- (3) Department of Health and Sanitation (medical relief, health insurance, foods, maternal and infant welfare, industrial hygiene, etc.);
- (4) Department of Communicable Disease (in man and animals, maritime quarantine);
- (5) Department of Vital Statistics (births, deaths, marriages, morbidity and mortality statistics).

Each department has from two to four divisions.

The annual budget of the Ministry is slightly over half a million Mexican dollars.

There is a National Board of Health, composed of from 13 to 17 members, appointed and presided over by the Minister of Health, with advisory functions. This board is supposed to meet twice a year and has already met once (February 1929). The following were the items on its agenda:

1. The policy to be adopted in regard to the old-style medical practice.
2. Training of health and medical personnel.
3. The principle of health demonstrations.
4. Health education and publicity.
5. The standardisation of the practice of health administration for special municipalities.

In February 1929, the Ministry of Health also called a conference of the Commissioners of Health of special municipalities and the directors of public health in the ordinary municipalities, in order to learn at first hand the character of the problems confronting municipal health officials. The discussion, which lasted for five days, dealt with nearly all the questions with which such officials are required to deal.

While the Ministry of Health is the supreme authority in health matters, it has particular responsibilities with regard to the special municipalities of which there are seven (Nanking, Peiping, Shanghai, Hankow, Tientsin, Tsingtao and Canton). All other cities are under the authority of the Provincial Governments, but there is no intermediary between the Central Government and these special municipalities. For practical purposes, this means that the health commissioners of these seven cities are appointed by the Central Government on the motion of the Mayor, who is also an appointee of the Central Government. Moreover, in these special municipalities a department of health is provided for by statute, whereas in the ordinary municipalities the establishment of such a department is permissive.

In the provinces, public health protection and poor relief are functions of the Department of Civil Affairs.

Apart from the ordinary municipalities the Provincial Government is responsible for the administration of the "hsiens" or counties. Each "hsien" is administered by a magistrate appointed by the Provincial Government, and the protection of the public health is a function of the "hsien" division of public safety, primarily concerned with the police.

In order to preserve a sense of proportion it must be pointed out here that the political subdivisions mentioned above do not correspond at all in point of population to the political subdivisions of Western countries.

The population of China is variously estimated at from approximately three hundred to four hundred and fifty millions. The lowest estimate for the smallest province is five millions (Kansu), while that of the largest (Szechuan) is nearly fifty millions. Each special municipality is supposed to have a minimum of a million population and some are very much larger, while a few fall short of that figure.

#### PROVINCIAL HEALTH ADMINISTRATION.

A memorandum on public health in China, furnished us by the Ministry of Health, is our authority for the statement that, during the last six or seven years, a considerable effort to alleviate sanitary conditions and to improve the public health was made by the authorities of the two provinces Shansi and Yunnan. In Shansi, a number of sanitary regulations were enforced and an attempt made to collect information on causes of morbidity and of mortality. In Yunnan, improvement of sanitary conditions progressed hand in hand with road building and other general administrative improvements of a reconstructive nature.

These two provinces enjoyed comparatively peaceful conditions, and were not subject to the rapid political changes which occurred so frequently elsewhere.

After the establishment of the Nationalist Government at Nanking, the province in which the most rapid progress was made in the direction of public health protection was Chekiang, the capital of which is Hangchow, one of the most beautiful cities in China. The itinerary prepared for us by the Ministry of Health provided for a visit to Hangchow, and the detailed description of provincial health administration in this report will be confined to what we were able to learn of the health programme in the province of Chekiang.

#### *Health Administration in the Province of Chekiang.*

The province of Chekiang, situated on the sea-coast, south of Kiangsu (Shanghai is situated in the province of Kiangsu), is estimated to have a population of over twenty-six millions. Its three principal cities are Hangchow, the capital, population 380,000, Ningpo, population 284,300, and Wenchow, population 202,700. There is a railway connecting Hangchow to Shanghai, and Hangchow is also the southern terminus of the Grand Canal.

The province is chiefly agricultural, although some coal is mined. Silk is the principal product, Chekiang producing 30 per cent of the total of fresh cocoons produced in China, a figure only equalled by Kwantung. Other important products are cotton and tea. To the casual observer the province appears to be well cultivated, and this, together with its recent immunity from serious political disturbances, probably accounts for its comparative prosperity.

The epidemic diseases prevalent in Chekiang are said to be smallpox, diphtheria, dysentery, typhoid fever, scarlet fever and malaria. Epidemic meningitis was prevalent in 1927-28 and an epidemic of influenza also occurred. Chekiang is said to be one of the centres in China where malignant tertian malaria prevails. Leprosy is also present.

Public health work in the Province of Chekiang is said to have begun only after the accession to power of the present Nationalist Government, and the organisation of the present Provincial Government, hence due allowance must be made for the recent introduction of health measures. It is very natural that the organisation of a framework of government should precede the application of reconstructive measures, and this has been the policy adopted by the provincial authorities.

The administration of the province is in the hands of a Committee (nine to thirteen members) and a Chairman, appointed by the National Government. The Executive organs are the Secretariat and the following departments:

- (1) Department of Civil Affairs;
- (2) Department of Finance;
- (3) Department of Reconstruction;
- (4) Department of Education;
- (5) Department of Agriculture and Mining;
- (6) Department of Industry, Labour and Commerce.

There is a chief secretary of the Secretariat and a Chief of Department at the head of each department, the latter being appointed at the instance of the Ministries concerned.

Two activities of the Provincial Government, outside the field of health, are worthy of mention in this report. One is the building of roads, which play such an important part in opening up the country to the work of public health agencies. An important highway linking up Nanking with Hangchow is now open to travel.

The other notable activity is the organisation of a school for local government officials. This school is now functioning regularly and has at present an attendance of 300 students. Candidates for entrance to this school must first pass examinations conducted in the different "hsien". Five or six of the candidates having the highest grades in each "hsien" examination are subjected to an entrance examination, from which the two candidates with the highest grades are selected as students. In exceptional cases more than two candidates from a "hsien" may be allowed to enter

the school providing their qualifications and examination grades are unusually high. The course lasts eighteen months, and is divided into three periods of six months each; the first at the school in Hangchow, the second in the "hsien" for practical work, and the third and final period in the school. Instruction is given in political science, agriculture, hygiene, administration and physical culture. The expenses of the school are borne by the Bureau of Civil Affairs in the Provincial Government, which provides for the board, lodging and tuition of the students. Travelling expenses are borne by the "hsien".

On graduation, these students will assume posts in the government of the different "hsiens". The knowledge of agriculture they have secured in the school will permit them to exercise an influence over the agricultural population. Their knowledge of hygiene should make of them active agents of the provincial health authorities. When the programme of reconstruction is established, it is planned to utilise the graduates of this school for the purpose of applying reconstructive measures.

There are said to be a number of such schools in the various provinces of China, but we were assured by the Dean of the school at Hangchow that the Chekiang Provincial School differed from the others in a number of important particulars, such as length of course, selection of students, subjects taught, etc.

The health administration of the province is in the hands of the Chief of the Department of Civil Affairs, who works through a Provincial Health Commissioner. We were informed by the Chief of the Department of Civil Affairs that his health programme for the province included the following:

### 1. *Provision of Proper Facilities for Medical Training.*

There were until recently two medical schools in Hangchow. One, a missionary school, was closed down during the recent troubles preceding the establishment of the present Nationalist Government; the other is about to close down as it cannot conform to the standard required of medical schools by the Ministry of Education. This second school was one of the best of the provincial medical schools in China, and a serious effort was made by its staff to provide for proper instruction with the inadequate facilities (especially clinical) at their disposal. It is the intention of the Chief of the Department of Civil Affairs to assist in the creation of a medical school with proper equipment and sufficient clinical material for teaching purposes.

### 2. *Provision of Proper Hospital Facilities.*

It is the intention of the Provincial Government to build and equip, as soon as possible, a 400-bed hospital in Hangchow, and to utilise this hospital for teaching purposes. The provincial health department and the provincial laboratory will be housed in the hospital, which will become a centre for the public health work and medical relief in the province. The hospital will have out-patient departments and mobile clinics, the latter to act as health centres as well as stations for medical relief. Nurses will be trained in the hospital, and utilised in the field.

The division of sanitary engineering, forming a part of the provincial health department, will also be housed in the hospital, which will eventually become the headquarters of all public health and sanitary activities in the province.

The hospital facilities of Hangchow consist of:

- (1) The Municipal Hospital;
- (2) The Chekiang Provincial Medical School Hospital;
- (3) Hangchow Hospital;
- (4) A sanatorium for tuberculosis;
- (5) A leprosarium.

None of these institutions is really modern, although, with some renovation, one or two might be utilised for hospital purposes. There is, however, a fairly high-grade missionary hospital of large capacity. In addition to the projected 400-bed hospital, it is the intention of the Provincial Government to build a sanatorium and a leprosarium to replace those at present in use.

### 3. *Provision of Trained Midwives for the Province.*

According to the Chief of the Department of Civil Affairs, there are at present in the province a large number of old-style midwives, who are ignorant of the need of cleanliness and asepsis. He has decided upon two steps to remedy this condition; first, to give short courses to these old-style midwives in order to impress upon them the need for cleanliness and asepsis (he had considered the policy of prohibiting them from practising, but realised that he must first arrange for a supply of properly-trained substitutes); secondly, the provision of proper facilities for the training of midwives. Accordingly the Provincial Government has organised a training-school for midwives at Hangchow. The present enrolment is eighty. The course lasts for two years and includes a certain amount of instruction in public health and hygiene. Their practical instruction is to be given in a maternity home, now almost completed; a building that was formerly a hospital is being reconstructed for the purpose. It is the aim of the Department of Civil Affairs to provide each "hsien" (of which there are some seventy-five in the province) with two properly-trained midwives, and, when this has been done, it will be possible to prohibit the old-style practice of midwifery.

#### 4. *Provision of Adequate Laboratory Facilities.*

There is the nucleus of a provincial hygienic laboratory. The organisation of this laboratory was begun late in September 1929. The institution is housed in temporary quarters, and the equipment has been ordered but not yet received. The director of this laboratory is a German bacteriologist, formerly employed at the Hygienic Institute at Basle and the Robert Koch Institute at Berlin. There are a number of Chinese assistants.

This institution is to serve all the purposes of a provincial laboratory, including the ordinary diagnostic work, epidemiological research, manufacture of sera and vaccines, and clinical microscopical work in connection with the provincial hospital, to which it will be removed.

#### 5. *Provision of a Supply of Trained Health Officers for the Province.*

The Provincial Government has sent a group of young physicians to the Public Health Department of Peking Union Medical College for a special course which will fit them for use as health officers in the province.

#### 6. *Programme of School Hygiene.*

There are sixteen hundred elementary schools in the Province of Chekiang, attended by over half a million school children (provincial report). While this number is not a large proportion of the total children of school-age, it is said to represent a high state of development as compared to most of the other provinces.

There is a normal school in Hangchow, supported by the Ministry of Education and attended by 1,030 students. In the opinion of prominent Chinese educators, this school is of a high standard.

The vitality of the educational movement in China is very striking, as we have had occasion to observe on our various visits. Nor is this movement local or regional in scope. Everywhere we went, north, centre and south, we had occasion to remark activity and devotedness on the part of those who were interested in the different branches of education, and it is a matter of regret that the shortness of our visit did not permit us to secure a first-hand knowledge of the Mass Education Movement, which is said to be playing such a large part in the awakening of the people.

The Government of the province of Chekiang is anxious to link up its health activities with the schools by preparing and applying a programme of school hygiene. A beginning is to be made in Ching-Po Primary and Secondary School, located in Hangchow, where, in co-operation with the municipal health authorities, a full programme of school hygiene will be provided, including medical inspection, school nursing, correction of defects and instruction in hygiene.

#### 7. *The Control of Malaria.*

Chekiang is one of the provinces in which malignant tertian malaria prevails. In co-operation with the Ministry of Health, the provincial health authorities are preparing a programme for the study of the disease and the application of preventive measures.

#### 8. *Improvement of Environmental Sanitation.*

The public health programme of the provincial authorities, as sketched briefly above, will give an idea of the difficult health problems existing in the province, and the courage and vision with which these problems are being faced. No mention has been made of the more elemental sanitary problems, such as the need for public water-supplies, sewerage systems, garbage collection and waste disposal.

In the city of Hangchow plans have been made for the construction of a public water system. At present the water used in the city is drawn from a lake bordering the city, which is heavily polluted, and from a number of ponds and wells, so located as to render them subject to contamination.

Throughout China night soil is highly prized as a fertilising agent, and its collection and removal are attended with danger of the spread of parasitic and intestinal disease. Night soil is employed as a fertiliser for mulberry trees used in the cultivation of silk, and hookworm disease prevails among the silk growers.

The safe collection and disposal of night soil in China is a problem compelling the attention of the health authorities. In Canton some interesting work has been done in attempting to find an agent which will increase the fertilising value of night soil and at the same time destroy the eggs of hookworm and other intestinal parasites.

The city of Hangchow is celebrated in Chinese literature and contains many temples, monasteries and shrines to which thousands of pilgrims, many from long distances are attracted every year. On this account the influence of epidemic diseases prevailing in Hangchow may be felt in many nearby and distant parts of China. The provincial and municipal authorities are fully alive to the necessity of providing for the highest degree of health protection possible with the means at their disposal.

The Ministry of Health, in its policy of concentrating on a few fundamental activities, has decided to co-operate with the provincial authorities in the directions outlined in the correspondence exchanged between the Minister of Health and the Medical Director of the Health Organisation, with respect to the facilities which that Organisation might afford to the health programme in the province.

MUNICIPAL HEALTH ADMINISTRATION.

The first modern health administration in China was said (*China Year-Book*, 1928) to have been established at Tientsin in 1902, when a sanitary division was created in the Police Department. This example was soon followed by Peiping and other large cities. The above statement does not, of course, apply to the International Settlements and Foreign Concessions. Public health administration continued to form a division of police work, and was, as a rule, carried on by non-medical and non-technical personnel for many years. The chief health work carried on was street cleaning and attention to matters of elementary sanitation.

In 1920, a modern health department was organised at Canton and placed in charge of a graduate of the Johns Hopkins School of Hygiene and Public Health. This department has continued to function until the present time, although it has been directed during the interval by a number of health commissioners, each for a short period only. The numerous changes in its direction are said to have interfered greatly with its efficiency.

A modern health department under a trained health commissioner was established in the City of Greater Shanghai (the Chinese Municipality) in August 1926. This example was shortly followed by Hankow.

During our stay in China visits were made to the Health Departments of the most important cities, such as Nanking, Shanghai, Peiping, Tientsin and Canton. The memorandum furnished us by the Ministry of Health contains brief accounts of the health administration in these cities. The present notes are restricted to areas in which the Minister of Health proposes to carry on work in which he hopes that the Health Organisation of the League of Nations will co-operate.

It is for this reason that these notes refer to health work in the province of Chekiang only, and that the description of municipal health administration is restricted to Shanghai.

Shanghai is situated on both banks of the Whangpoo River about eight miles from its junction with the Yangtze, where the latter empties into the China Sea. It is the most important port in China (see report on quarantine) and was one of the first five ports opened to foreign trade. Shanghai is one of the chief industrial centres of China, having many cotton and silk mills, shipbuilding works, a Government arsenal, dock and engineering works, etc.

The metropolis of Shanghai is made up of an International Settlement, a French Concession and the Chinese city, which surrounds the first two. Estimated populations are as follows:

The Chinese city . . . . .	1,700,000 <sup>1</sup>
The International Settlement. . . . .	833,265 <sup>2</sup>
The French Concession . . . . .	357,996 <sup>2</sup>
Total . . . . .	2,891,261

The foreign population, largely Japanese and Russian, in these units is as follows:

	Number	Percentage
The International Settlement. . . . .	30,565	3.67
The French Concession . . . . .	9,920	2.8

There is no real separation between the three cities, one merging into the other. This naturally makes for administrative difficulties requiring for their solution the closest and most cordial co-operation of the three municipal governments, a condition which has, unfortunately, not always obtained.

Lack of co-operation between the health departments of these cities is due to a variety of causes, among which the following may be mentioned.

The wealth of Shanghai is concentrated to a large extent in the International Settlement and the French Concession, so that means for carrying on health work are much more abundant there than in the Chinese city.

The health department of the International Settlement has been built up through a period of years, while that of the Chinese city was first organised in 1926.

The directing personnel of the first was trained in the English school, while the Health Commissioner of the Chinese city was trained in America.

The training of the Health Commissioner of the Chinese city and the circumstances in which he is placed have led him to undertake activities which are described by the term social hygiene, rather than those pertaining to fundamental sanitation. This is a natural tendency in view of the fact that the area for which he is responsible is some thirty times larger than the area of the International Settlement and the French Concession combined. The provision of the fundamentals of sanitation in that city would be almost prohibitively costly, and, with the means at his disposal, he has naturally undertaken activities of a different character, such as those pertaining to school hygiene.

Finally, the health department of the International Settlement has felt that its first duty is to the foreigners within its area.

The operation of these causes, and the tension existing between Chinese and foreigners, on account of such questions as extraterritoriality, have tended to prevent such co-operation as is essential to the proper regulation of this metropolitan area, although due credit must be given to the personnel of both departments for their attempts to arrive at a *modus vivendi*.

<sup>1</sup> Statement of Health Commissioner.  
<sup>2</sup> *China Year-Book*.



The following table gives the death rates for Chinese and foreign population in the International Settlement since 1918 (Report of the Commission of Public Health for 1928):

Year	Death Rate	
	Chinese	Foreign
1919 . . . . .	14.3	20.6
1920 . . . . .	11.2	15.2
1921 . . . . .	11.0	18.2
1922 . . . . .	11.7	19.3
1923 . . . . .	10.3	17.2
1924 . . . . .	11.2	17.1
1925 . . . . .	11.2	16.4
1926 . . . . .	15.3	20.1
1927 . . . . .	12.3	14.9
1928 . . . . .	13.2	16.1

It is probable that the true general death rate among the Chinese is much greater than that stated for reasons given in Dr. Norman White's report on the Far East, namely, that, in addition to the percentage of deaths among the Chinese which escapes notice, many of those afflicted with chronic or incurable complaints leave the Settlement for their native villages to die.

The following table shows the number of deaths from certain communicable diseases among the residents of the International Settlement:

Year	Smallpox	Cholera	Typhoid fever	Scarlet fever	Tuberculosis	Cerebro-spinal meningitis
1919 . . . . .	1	680	23 <sup>1</sup>	87	1,123	15
1920 . . . . .	0	144	30 <sup>1</sup>	103	1,098	76
1921 . . . . .	227	122	19 <sup>1</sup>	152	913	29
1922 . . . . .	240	101	30 <sup>1</sup>	152	908	12
1923 . . . . .	57	94	284	71	879	5
1924 . . . . .	98	0	293	78	926	7
1925 . . . . .	66	99	328	84	933	6
1926 . . . . .	181	373	424	598	1,190	8
1927 . . . . .	7	98	472	45	1,031	11
1928 . . . . .	159	6	462	71	946	20

Scarlet fever and measles, especially the latter, occur in severe forms in Shanghai. The notification of cases of communicable disease in the Settlement is not sufficiently complete to warrant the calculation of case-fatality rates, but the number of deaths from scarlet fever averaged 47 a year during the last decade. In 1928, there were 375 deaths from measles in the Chinese population. Leprosy, typhus fever and malaria in benign form occur sporadically in Shanghai. Malaria began to assume noticeable dimensions in 1927 and, in 1928, there were 100 fresh infections notified, of which 80 occurred among soldiers.

During the period 1916 to 1928, only four cases of human plague occurred, all in 1924. During the same period infected rats were found as follows: 6 in 1916, 2 in 1920, 3 in 1924 and 1 each in 1925 and 1926.

The relative freedom of Shanghai from plague cannot be accounted for otherwise than on the assumption that *X. cheopis* is relatively scarce. This is borne out by some studies carried out from February 22nd to April 12th, 1923, by the Health Department of the International Settlement, which yielded 266 *Ceratophyllus*, 114 *Ctenopoylla* and 2 *Xenopsylla* in a total of 382 rat fleas. Of a total of 129 rats examined, 98 were *Rattus rattus* and 31 *Rattus decumanus*; the average number of fleas per rat being 2.78 in the case of *Rattus rattus* and 3.48 in the case of *Rattus decumanus*.

In view of the importance of this subject these observations should be repeated.

#### *Smallpox and Cholera in Shanghai.*

Smallpox and cholera are apparently endemic in Shanghai, although exact data based on careful epidemiological studies of these diseases are unfortunately not available.

During the eight months January to August, 1929, there were four hundred and thirty-three deaths from smallpox registered in the Chinese municipality of Greater Shanghai (Report of the Health Commissioner). The number of deaths from smallpox in the International Settlement during 1928 was 159, of which 20 occurred among the foreign population. The disease is virulent in Shanghai, as these 20 deaths among the foreign population resulted from 62 cases, a case-fatality rate of 32.25 per cent.

To combat the ravages of smallpox, vaccination is practised on a voluntary basis by the health departments of the Chinese municipality and of the International Settlement. In the latter 55,734 vaccinations were carried out during 1928; a marked increase over previous years. In 1929, the Health Department of the Chinese municipality vaccinated 86,665 persons; also a distinct increase over the record of previous years.

<sup>1</sup> Foreign population only.

This number of vaccinations yearly undoubtedly results in restricting the spread of the disease, but it will have to be increased considerably in order to wipe out smallpox in the metropolitan area. None of the health departments in the area can hope to make smallpox vaccination compulsory without similar action on the part of the other two departments, for the limits of each jurisdiction are too easily passed.

Shanghai is known throughout the ports of the Far East as a centre for the spread of cholera. The number of deaths from cholera per year in the International Settlement have already been given (366 in 1926, 94 in 1927 and 6 in 1928). During the year 1928, cholera was quiescent, but it broke out afresh in 1929. During the eight months January to August, 1929, 161 deaths were registered in the Chinese municipality, and the system of registration is of too recent introduction to yield anything like complete results. During the same period, 842 deaths from typhoid fever were registered and 1,460 deaths from "other forms of gastro-intestinal diseases".

To control cholera, the usual steps are taken, such as isolation of cases, treatment of water supplies, laboratory investigations, etc. The use of cholera vaccine is also resorted to, 8,512 doses having been issued in 1928 by the Health Department of the International Settlement. During the summer of 1929, the Health Department of the Chinese municipality inoculated 131,173 persons against cholera, about twice the number it had been able to inoculate during the previous year.

The incidence of cholera is not restricted to the metropolitan area of Greater Shanghai, but extends to Nanking and Hangchow, both districts connected with Shanghai by rail (201 and 120 miles distant, approximately) and the former also by river steamers. Intermediate stations are also affected, and cholera occurs in the province of Kiangsu, outside the cities mentioned.

### *Health Work in the International Settlement of Shanghai.*

A public health department<sup>1</sup> is maintained by the Shanghai Municipal Council. Its work is carried out by the following divisions:

Administration and Vital Statistics Division;  
Laboratory Division;  
Hospital Division;  
Food, Dairies and Markets Division;  
Sanitation Division.

The expenditure for public health work in the International Settlement is estimated at 90 tael cents *per capita*, which corresponds roughly to 55 cents gold. The following analysis of the estimates for 1929 was furnished by the Health Department:

	Tael
Administration . . . . .	92,600
Laboratories, (pathological, chemical and dispensary) . . . . .	87,050
Hospitals (isolation—Foreign and Chinese; mental ward, T.B. sanatorium; district nursing; radiology services; Mokanshan sanatorium; ambulances service, etc.) . . . . .	264,330
Police Medical and Hospital Services (Indian and Chinese) . . . . .	} 33,200
Police Hospitals, Gaols, Remanded Prisoners, etc. . . . .	
Free Clinics (tuberculosis and venereal diseases) . . . . .	28,560
Food, Dairies and Markets Division . . . . .	73,500
Sanitation Division (including disinfection, plague prevention, mosquito and fly reduction, publicity) . . . . .	179,160
Municipal Cemeteries and Swimming-Pools . . . . .	5,730
Contribution to Port Health Work . . . . .	6,000
Grants-in-aid—Civil Hospitals <sup>1</sup> . . . . .	119,400
Total . . . . .	889,530

<sup>1</sup> This item represents 15.5 per cent of the total.

According to the report of the Public Health Department for 1928, the staff numbers 135, of which 11 are Chinese physicians. The responsible posts are held by non-Chinese.

The policy of the Department has been directed as a rule towards the improvement of sanitary conditions and the restriction of epidemic diseases rather than towards so-called social hygiene. However, free clinics for venereal diseases and tuberculosis have been organised, the latter in 1927. During 1928, 679 patients attended the venereal disease clinic, and 238 visited the tuberculosis clinic.

The Department possesses 16 branch offices in the charge of sanitary inspectors, where vaccinations are carried out, health lectures are given, and other types of health work carried on.

The sanitary work of the Health Department has been particularly noteworthy in respect of markets, which it has constructed and organised, slaughter-houses and dairies.

<sup>1</sup> It is not our intention to describe public health work in the International Settlements and Foreign Concessions of China. Nevertheless, two reasons lead us to include this note on the health department of the International Settlement of Shanghai—first, because it is the only modern health department in Chinese territory and, secondly, because it is an important element of the problem constituted by Greater Shanghai.

The work of the Municipal Laboratory has grown steadily since its establishment in 1900. A total of 40,117 examinations were carried out during 1928, divided into routine diagnostic and public health analyses (bacteriology of water, foods, etc.). The laboratory prepares anti-rabies vaccine and manufactures anti-smallpox, anti-typhoid, anti-cholera and anti-plague vaccines.

The public health department is in the hands of a Health Commissioner, with long experience in the East, who is about to retire. He and his predecessors have built up a department in all respects equal to the health department of an average provincial town in England.

#### *Campaign against Smallpox and Cholera.*

In the report on quarantine mention is made of the precautions taken by other Chinese ports against Shanghai when cholera prevails in that city. Vessels from Shanghai are also subject to preventive measures in foreign ports on account of cholera.

These considerations induced the Ministry of Health to take steps to initiate the control of smallpox and cholera on a co-operative basis in the Shanghai area.

The Minister of Health called together the health commissioners of the three municipalities, medical officers of the railways and one of us on December 27th, and announced that the initiation of certain measures against smallpox and cholera had been decided on, and that the co-operation of the health authorities of the foreign settlements was invited. These measures were:

- (1) Anti-cholera inoculation and smallpox vaccination on a very large scale, with the possibility of applying compulsion;
- (2) Study of the epidemiology of cholera in the area;
- (3) The supervision of water-supplies and the provision of a number of artesian wells in the Chinese municipality in areas where the present supplies are contaminated;
- (4) Arrangements for the isolation of cases;
- (5) Supervision of foods exposed for sale;
- (6) Anti-fly campaign;
- (7) Precautions regarding the disposal of night soil;
- (8) Supervision of water traffic in Soochow Creek, along the Whangpoo and Yangtse Rivers and from the coast through the port quarantine service.

The principle of co-operation was accepted by the health authorities concerned, and all agreed on the necessity for the epidemiological study.

In view of the importance of Shanghai as an international centre for the spread of smallpox and cholera, and of the importance to the Far East of the campaign to be undertaken, the Minister of Health requested that the Director of the Eastern Bureau of the League of Nations at Singapore should come to Shanghai during the campaign.

The Minister of Health requested us to study the programme of emergency measures outlined above, and the Chief Statistician of the Health Section is now in Shanghai to plan the epidemiological study of cholera and smallpox in association with officials of the Ministry and of the three health departments concerned.

Certain steps to be taken by the Ministry of Health will facilitate the application of emergency measures against smallpox and cholera in the Shanghai area.

First, an order will be adopted permitting the compulsory requirement of inoculation against cholera and smallpox.

Secondly, a high official of the Ministry will be appointed to act as epidemic commissioner, in order that the work of the health and other authorities in the various districts concerned may be properly co-ordinated.

Thirdly, the Ministry will make a financial contribution to the campaign and will also assist by providing vaccine.

#### *Health Work in the Special Municipality of Greater Shanghai.*

We were much impressed by the health work being carried on in the Chinese municipality under the inspiring leadership of Dr. Hou-Ki Hu, who heads the Health Department established in August 1926. Changes have taken place in the organisation of the department but the Health Commissioner has been retained, and the work has steadily progressed owing to the continuity of policy permitted by his retention. The present form of organisation dates from July 1928, when the municipality of Greater Shanghai was established. There is a Secretariat, a public health laboratory, rural health centres at Woosung and Kao-chiao, and four divisions, as follows:

- First Division — Charged with vital statistics, medical registration and office supervision;
- Second Division — Responsible for street cleaning, health education, sanitary police and general sanitation;
- Third Division — In charge of meat and dairy inspection;
- Fourth Division — In control of communicable diseases, hospitals, school hygiene, public health nursing and rural sanitation.

The staff consists of 72 staff members, 8 sanitary inspectors, 19 sanitary police, 17 foremen and 495 scavengers. The Health Commissioner has a degree from the Johns Hopkins School of Public Health, and two of his divisional chiefs have had special training in hygiene. A majority of the staff members are medical school graduates.

The budget of the health department calls for an expenditure of approximately 200,000 Mexican dollars a year.

*Activities of the Health Department of Greater Shanghai.*

The registration of births and deaths was begun in January 1928. Forms for the certification of births and registration of deaths were distributed to the police authorities, doctors and hospitals. The Health Commissioner believes that about forty per cent of births and deaths are now reported, and he is making every effort to increase the efficiency of the system. During the period January to August 1929 inclusive, 13,100 deaths were registered, corresponding to a crude death rate of approximately 12 per thousand per year. Of these, 2,049 were due to tuberculosis, 132 to diphtheria, 99 to scarlet fever, 233 to smallpox, 36 to measles, 842 to typhoid fever, 161 to cholera, 344 to puerperal disease, 1,294 to unknown causes.

It is evident that the registration of deaths and the certification of causes are far from accurate. This is due, in part, to the small number of qualified physicians. There have been registered in the department, 2,722 old-type Chinese medical practitioners and 504 modern medical graduates, many of the latter residing in the International Settlements and the French Concession.

During the eight months January to August 1929, there were registered 10,040 births, corresponding to a birth rate of less than nine per thousand per year. This is obviously incomplete.

In order to interest the public in its work and to secure their co-operation, three health campaigns have been conducted in two years. A health exhibit open to the public during the month of April 1928 was attended by 150,000 persons.

A health monthly and quarterly are published by the department.

Posters, pamphlets, leaflets and handbills are prepared and distributed in large numbers (214,000 in 1929) calling attention to the need for vaccination against smallpox, inoculation against cholera, etc.

As stated previously, 86,665 persons were vaccinated and 131,173 persons inoculated against cholera during 1929.

A School Health Service was started in November 1928, when a physician with special training (Peiping Union Medical College) and a public health nurse were employed for this purpose. In the beginning, the work was restricted to treatment, but, in April 1929, a systematic and modern school health service was begun for 14 of the municipal schools with a student population of about 9,000. This service began by the complete physical examination of all these school-children, but will be restricted in future to the examination of all older school-children at three-year intervals and of new scholars on admission. Parents of the children are invited to attend during these examinations.

School nurses are employed to follow up these examinations to see that the necessary corrections are made. Arrangements have been made with the Shanghai Red Cross Hospital and with certain eye, ear, nose and throat specialists to give the necessary treatment at a very low cost.

A special dental clinic in charge of two part-time dentists is held every morning. Trachoma clinics for the diagnosis and treatment of this disease are held in the different schools from time to time.

The school physician and nurses hold morning inspections in the schools for the detection of communicable diseases and to teach health habits. Teachers are being instructed in the method of conducting such inspections and, when trained, will be responsible for such work.

Most of the school-children have been vaccinated and inoculated against cholera and epidemic meningitis, without charge.

Each school is visited twice a week by a school physician and a nurse for the purpose of giving treatment for minor defects.

A complete and detailed examination of the school plant is made once a year, and a report with recommendations is sent to each school and to the Bureau of Education. In July 1929, 14 of the 20 schools were examined in this manner.

The following is a summary of the work done from April 1st to October 31st, 1929:

Physical examinations . . . . .	6,160
Smallpox vaccinations . . . . .	4,824
Cholera inoculations . . . . .	200
Anti-meningitis inoculation . . . . .	945
Total of treatments given . . . . .	11,052
Examinations for trachoma . . . . .	3,780
Weighing school-children . . . . .	6,160
Health lectures (public) . . . . .	24
Classroom health lectures . . . . .	41
Consultations with parents and students . . . . .	51
Number of defects corrected (other than dental) . . . . .	42
Number of school-children given dental treatment . . . . .	853
Number of home visits . . . . .	27

Detailed arrangements have been made for the treatment of children with physical defects, and modern forms for recording all findings are used.

An unexpected result of the first stage of this work in the schools was pressure on the municipal government, as well as on the Health Department, to extend the work to all the city schools, so popular did it prove. The municipal authorities were willing to provide funds for its extension, but trained personnel was not available, this indeed being one of the chief problems in China. The Health Commissioner found it necessary to increase the size of the

school population served to twenty thousand, and expects to be able to extend this work to all the city schools within two years.

Some of these schools are located in the International Settlement and the French Concession, although controlled exclusively by the Chinese authorities. The Health Department of the Chinese municipality is carrying on health work in these schools as the municipal authorities of the two foreign districts have not yet undertaken this work.

#### *Other Activities of the Health Department of Greater Shanghai.*

##### *Meat Inspection.*

Beginning in January 1928, only slaughter-houses registered with the Department were permitted to kill, and these were all inspected. A municipal abattoir to which all slaughtering will be restricted is planned. The carcasses are inspected and stamped, and those condemned as unfit for food are as a rule confiscated and sterilised, the grease being sold for soap-making. Other by-products are also sold. This work progressed by stages until on October 11th, 1929, cattle and sheep, as well as swine, slaughtered in the Chinese territory received ante-mortem as well as post-mortem examination. In ten months of 1928, the Health Department inspected 205,078 pigs slaughtered in the city.

Dairies are also inspected and registered. A majority of these are located in the Foreign Settlements and are also inspected by the Health Department of the International Settlement.

##### *Hospitals.*

In Greater Shanghai, hospitals are registered by the Municipal Health Department under the authority of regulations promulgated by the Ministry of Health. Twenty-two of these have been registered, of which four are in the International Settlement and the French Concession. Practitioners of old-style empirical medicine frequently maintain a few beds for their patients, and these are being tolerated for the time being and are registered as "offices".

Registration of physicians, midwives, dentists and pharmacists is also carried out and has given rise to a considerable amount of opposition from the medical profession.

It is not necessary to enter into details regarding the street-cleaning work, which here, as elsewhere, is a duty relegated to the Health Department. Night soil is removed by contract under the supervision of the Health Department.

The refuse collected from the streets is used for filling, and attractive streets have been built in this way where formerly were ponds and creeks. About 500 tons of refuse are removed daily.

#### *Certain Characteristics of Greater Shanghai.*

Where this city surrounds the foreign settlements, it is built up and consists of narrow streets lined with one and two-storey houses. But the municipality takes in a very large area, some of which might be regarded as rural territory, consisting of a number of villages with intervening sparsely settled areas. Moreover, there is a large population afloat on Soochow Creek and its branches and on the Whangpoo River. This population lives in boats, summer and winter; so large is the number of boats and so densely are they packed together that, in places, the water can hardly be seen. The banks of the creeks and rivers are also lined with huts of a miserably poor type, and these two conditions present a housing problem which is hardly paralleled in Western countries. It is this population which suffers most from cholera and other gastro-intestinal diseases. Many of the ricksha coolies live on the creeks, and many factory workers are housed in boats or on the banks of these waters.

The municipality has adopted a plan to solve this problem, but, owing to the large sums involved, several years will elapse before it is completely realised. One group of 100 houses has been built and is occupied. Each house consists of a living-room and bedroom, and not more than five persons are permitted to live in each house. The houses are in blocks separated by wide streets. There is an artesian well, a sanitary screened latrine and a community hall in which night classes are held. When a sufficient number of these groups of houses have been erected, the worst features of the housing problem will have been solved.

The municipality has a public water supply which is said to be delivering water of safe quality, but it serves only a small percentage of the population. In 1926, the same supply was grossly polluted, and there is evidence that it was at least partly responsible for an outbreak of cholera. To extend the supply to the remainder of the population would be prohibitively costly owing to the long distances involved and the scattered population. At present the Health Commissioner is attempting to solve the problem of water supply by sinking a number of artesian wells in areas where the ordinary sources are most polluted, *i.e.*, near creeks and ponds. In spite of the fact that it is not the habit of the Chinese to drink unboiled water, this is in all probability one of the important sources of cholera, dysentery, typhoid and paratyphoid fevers.

The disposal of night soil is also a difficult problem. This material is highly prized for its fertilising value, and is bought and collected by contractors who sell it to farmers. The installation of a water-carriage system would be prohibitively costly for reasons stated above in connection with the water supply, but in the most densely populated regions of the city this will have to be the eventual solution of the problem.

The garbage and refuse collected is not suitable for treatment in a reduction plant according to the Health Commissioner, and the quantity is too large to be wholly utilised for filling. The

Health Department is planning the construction of one or more large incinerators for this purpose.

The two rural health demonstrations carried on under the auspices of the Municipal Health Department at Woosung and Kao-Chiao, the former in co-operation with the medical school of the Central University, are described later on in this report under the heading of "Health Centres".

*Plans for the Extension of Public Health Work in Greater Shanghai.*

The Health Commissioner of Greater Shanghai has a carefully prepared plan for the extension of the work of his department. He has divided the plan into five periods, one to follow the other as financial limitations permit. By the end of the five periods a full programme of modern health activities will be applied in Greater Shanghai.

*Public Health Laboratory.*

The Municipal Health Department possesses a public health laboratory in which routine diagnostic work, bacteriological and chemical examinations, and the manufacture of sera and vaccines are carried out. During the period from July 1928 to June 1929, the laboratory carried out 1,798 examinations, including 707 Wassermann tests, 197 sputa for tuberculosis, 73 Widal tests, 227 examinations for parasites, 73 examinations for typhoid, dysentery and cholera, 110 water analyses, 25 examinations of milk, etc. In addition, there were 1,212 examinations carried out in the chemical division, and some cholera serum, smallpox vaccine and material for Pasteur treatment was manufactured.

One branch of the National Public Health Laboratory is housed in the same building as the municipal laboratory.

HEALTH CENTRES IN CHINA.

The operation of several modern health centres is one of the most hopeful signs for the future of public health work in China. There are three of these—described in the following pages—and the nucleus of a fourth, at Hsoao-Chuang, near Nanking, linked up with the educational movement which is so full of vitality everywhere in China.

*The Peiping Health Centre.*

This centre was established in 1925 jointly by the National Epidemic Prevention Bureau (representing the Government) and the Department of Hygiene of the Peiping Union Medical College. Professor J. B. Grant, who heads that department, is largely responsible for the organisation of the centre. The Government conferred on the medical college administrative responsibility for the area of the health centre and contributes a sum equal to the proportion of the municipal health budget that would be normally allotted to that area. The Medical College provides any sums required over and above this amount for expenses incurred in affording the facilities for teaching and investigation. The personnel is appointed by the college subject to the approval of the municipal authorities.

The centre<sup>1</sup> is housed in a converted temple. The lack of religious prejudice in China is indicated by the fact that the use of temples for health work is not resented. The area for which the centre is responsible is a city ward, conveniently located within two parallel streets, with a population of 95,956. Within this area a modern health programme is applied, and such studies have been made as throw much light on municipal health problems in this part of China.

The work of the centre is divided into three: general sanitation, vital statistics and communicable diseases, and medical services.

The division of general sanitation is responsible for general sanitary conditions, including supervision of foods, beverages, drinking-water, etc.

The functions of the division of vital statistics and communicable diseases are registration of births and deaths, investigation of causes of death, control of communicable diseases and the administration of preventive inoculations.

The division of medical service maintains a school health service for 1,800 students, an industrial health service for 1,200 workers, and acts as a health centre for about half of the population of the ward by the provision of five preventive and fourteen treatment clinics weekly. There is, of course, a public health nursing service.

The need for medical relief is illustrated by the investigation of the first thousand deaths which yielded the following results:

	Percentage
Received no medical treatment . . . . .	36
Received old-style Chinese medical treatment . . . . .	48
Received modern medical treatment . . . . .	16

The staff of the health centre consists of 6 physicians, 17 nurses, 1 dental hygienist, 1 pharmacist, 3 sanitary inspectors, 1 secretary and 3 clerks. Two physicians from the Department of Medicine of the College assist in the infant and tuberculosis clinics.

The budget of the centre amounts to 60,888 Mexican dollars yearly, divided into 52,388 Mexican dollars for salaries and the balance for expenses.

<sup>1</sup> "Methods and Problems of Medical Education", Fourteenth Series, the Rockefeller Foundation, New-York, 1929, page 109.

The third annual report furnishes an idea of the work:

Sanitary inspections . . . . .	78,870
Deaths investigated by physicians . . . . .	1,148
Total curative treatments (44,575 for trachoma). . . . .	57,778
Health examinations. . . . .	1,769
Smallpox vaccinations . . . . .	2,590
Cholera inoculations . . . . .	625
Typhoid vaccinations . . . . .	255
Dick tests . . . . .	327
Schick tests. . . . .	3
Toxin-antitoxin immunisations . . . . .	21
Scarlet fever antitoxin injections . . . . .	86
Communicable diseases excluded from schools. . . . .	96
Generalised nursing—home visits (3,976 patients) . . . . .	25,660
Attendance at health lectures . . . . .	8,737

This centre is utilised as a means of instructing medical undergraduates in hygiene and public health administration. Each undergraduate is required to make a community health survey, and to act as a clerk for three weeks at the centre.

The following death rates are from the first health area in Peiping in which the centre is located. It is not to be assumed that they are complete <sup>1</sup>:

Corrected birth rate (1928-29) . . . . .	26.4
Corrected death rate (1927-28) . . . . .	28.3
Corrected death rate (1928-29) . . . . .	23.7
Infant mortality rate . . . . .	200 per thousand births
Typhoid fever death rate . . . . .	33 per 100,000 of population

*Health Centre at Woosung.*

This centre was established in 1929 under the auspices of the Medical School of the Central University (situated at Woosung) and the Department of Health of Greater Shanghai. It began to function in September 1929, so that it is too early to give the results of its work. This centre is utilised for the training of medical undergraduates in hygiene and public health. It is directed by the Professor of Hygiene of the Medical College.

The population of Woosung is about 9,000 and there are about 30,000 people in the surrounding districts.

The work of the centre is carried on by four divisions, as follows:

1. Division of Administration and Vital Statistics.
2. Division of Medical Service and Laboratory examination.—This division is in charge of the general clinics at which the attendance so far has been about 60 daily. A small laboratory has been fitted up for clinical work, and the laboratories of the medical school are utilised for the more difficult analyses.
3. Division of Public Health. — In charge of health education, school hygiene, industrial hygiene, communicable diseases, maternal and infant welfare and public health nursing. School health work is carried on at two primary schools and one middle school, the number of school-children being 650.
4. Division of Sanitation. — The work of this division is carried on in co-operation with the sanitary forces of the municipal health department.

The personnel of the centre is not yet complete. The chief of the centre is also in charge of three of the divisions. There is a small nursing staff in the charge of a chief nurse.

The budget for 1930-31 is 31,000 Mexican dollars, of which one-third is to be contributed by the Medical College.

While it is too early to give the results of the work of this centre, due credit must be given for the progress already made. The centre has done much to gain the confidence of the population in its area; it has already made some marked improvements in the sanitary conditions by filling ponds and swamps, by arranging for the collection and disposal of wastes, and by controlling the system of night soil collection and removal.

The confidence of the population is shown by their willingness to attend its clinics, and the character of the work done at these clinics commands respect.

The greatest difficulty of the centre at present is the lack of qualified personnel to fill posts now vacant.

*Kao-Chiao Rural Health Centre.*

This is located in the rural part of the Chinese municipality of Greater Shanghai, bordering on the Whangpoo River, opposite Woosung, some miles from the centre of the city. While the centre is in a small village, the work will also extend to neighbouring villages, for here, as elsewhere in China, the rural districts are densely populated.

<sup>1</sup> General death rates in China are much more nearly complete than birth rates in practically all deaths are reported to the police, while there is a prejudice against the notification of births.

The problems which the staff of this and other health centres in China are called upon to face may be imagined when it is understood that modern medicine and modern hospitals are unknown, no information exists as to the composition of the population, or as to prevailing diseases, death rates and causes of death, the wells and ponds used as sources of water supply are contaminated, there are no modern methods of transport (rickshas are used by the staff when the roads are good, wheel-barrows in the wet season), the large majority of the population is illiterate, night soil is disposed of in such a way as to favour the spread of intestinal diseases and parasites, and housing conditions are extremely primitive.

This demonstration was started in July 1929 and is organised under four divisions, as follows:

1. General Administration. — Responsible for clerical work and vital statistics.
2. Medical Service. — In charge of free medical clinics, the free obstetrical clinic, and registration of physicians, midwives and dentists.
3. Infectious Diseases Control. — This division is responsible for environmental factors injurious to health, laboratory service and the control of communicable diseases.
4. Health Promotion. — This division is responsible for maternal and infant welfare, school hygiene, industrial hygiene, public health nursing and health education.

The health centre is too recently organised to have produced any startling results. Nevertheless, its work has already gained the appreciation of the population it serves. For example, in a little more than two months, a total of 4,313 patients were treated or given preventive inoculations.

An artesian well has been sunk in the village where the centre is located, and this source of pure water has proved to be unexpectedly popular. A flyproof watertight public latrine is being constructed.

Vaccination against smallpox is carried out by a mobile unit consisting of one physician, one nurse and a sanitary policeman.

The laboratory services are limited for the present to the examination of blood smears for malarial parasites, sputum for tubercle bacilli, stools for intestinal parasites, etc. Some fifty-two examinations of this kind have been carried out.

The work of this rural health centre has confirmed the fact that malaria is a serious health problem in the Yangtse valley.

Infant mortality is also extraordinarily high, and tetanus is responsible for a large percentage of deaths among the new-born.

The health centre is housed in a temple taken over for the purpose, illustrating again the lack of religious prejudice among the Chinese. Their open-mindedness is shown by their willingness to accept modern medical treatment such as public health nursing, obstetrical service and smallpox and anti-cholera inoculation. The greatest difficulty will consist undoubtedly in prevailing upon them to change their habits of life, which conduce to the spread of disease. Here, as elsewhere, the practice of health habits can be taught with success only to the young.

The future programme of this centre emphasises health education, communicable disease control, school hygiene, sanitation, maternity and infant welfare, and the development of vital statistics.

#### *The Health Centre at Hsiao-Chuang.*

The interest of this health centre which is still in a very early stage of its development, lies in its connection with the educational movement. Hsiao-Chuang is a rural area, some miles outside of Nanking, where a normal school for rural education has been started. The population in the area is about 13,000, living in scattered villages. A physician with public health training carries on the health work in the schools, assisted by two nurses. A clinic is maintained for the villagers at which the attendance is about twenty-five daily. There is a complete school plant, beginning with a kindergarten at one end of the scale and ending with a normal college where science is taught at the other. New schools are being opened in the villages, and attention has been paid to community welfare by such steps as the organisation of a defence force (against bandits, who were last seen a few months previously) and clubs for various purposes.

The graduates of the normal college have been instrumental in starting other educational demonstrations. When sufficient funds are available, it is hoped to extend the present health services into a complete "county" unit.

The community lacked any form of social organisation when the demonstration was started, and this illustrates the problem facing educators and sanitarians in China to-day.

The health work at Hsiao-Chuang is carried on under the auspices of the Ministry of Health.

We were much impressed by the spirit which appeared to animate all those concerned with this movement. No difficulties appeared to be too great to be overcome, and no problem too serious for solution. This small community in rural China is learning something of modern science, something of sociology, something of civilisation in the world to-day. The students of the primary classes are thinking about the place of China in the world community, and several of them revealed a knowledge of international affairs which could not have been expected of a high-school student in countries having a more highly-developed educational system.

The educational authorities hope for the multiplication of such educational demonstrations, and the health authorities will find in them splendid opportunities for carrying on experiments in public health administration.



## Chapter II.

### NOTES ON MEDICAL EDUCATION.

1. Modern medicine in China is still strange and unfamiliar to the masses. The native art of healing was in its golden age in the twelfth and thirteenth centuries B.C., when it was in advance of any practice known at the time. But its progress since has been slow and reluctant. To-day, the more up-to-date old-type practitioner has acquired the jargon of modern medicine and has probably reached the level and the prominence of the lay quacks of all kinds who have multiplied of late years in Western countries. His clientele probably does not differ from that of his Western colleagues. His poorer and more ignorant brothers, of whom there must be hundreds of thousands, provide medical relief for the millions by methods based on "dark age" experience. This old type of practitioner caters for the upper and middle classes, and sometimes even for the leaders of the country, again not unlike his Western *confrères*, over whom, however, he enjoys an enormous advantage. To compete with him, there is only a handful of doctors trained in modern medicine.

2. The Commissions sent out by the Rockefeller Foundation in 1914 and 1915 to study conditions of public health and medicine in China reported that "estimates made from good independent sources, foreign and Chinese, substantially agreed in saying that there are not more than from 45 to 55 Chinese practitioners of Western methods who have been educated in Europe, or in the United States of America. Some of these are engaged in practice, but most are found only in the hospitals and medical schools. There are, of course, some Chinese who have been trained in missionary medical schools in China and who are practising. These cannot be many in number, as it is known that most of the graduates of these schools are on the staff of the various mission hospitals".

The Commission found a few Chinese practitioners of modern medicine who had been educated in Japan. None of these, as far as the Commission's observations went, had attended any one of the Imperial Universities. Apart from the mission hospitals and outside the Treaty Ports, there are very few practitioners in China who have had any training at all in modern medicine, and almost none who have been adequately trained.

3. Very considerable progress was accomplished during the fourteen years since these findings of the Commission; but to-day the exact number of practitioners of Western medicine is still a matter of official and semi-official conjecture. The Ministry of Health estimates the number at approximately 4,000, of whom probably not more than 1,000 obtained their training abroad or at the better-grade medical schools in China. The majority still elect to reside in the chief seaports and the main cities of the country.

With the advent of the Western trained graduates a new difficulty arose, due to the persistence in China of their linguistic and technical allegiance to the medical schools at which they were trained abroad. Students returned from America and England grouped themselves into the "National Medical Association of China", and continued to use the English language for keeping records in hospitals, for technical discussions at their own societies and as a medium of teaching. The second group in importance, namely, the Japanese, adopted the same practice for a time, although there has been in late years a certain amount of amalgamation of this group with the National Medical Association. Next in influence—the German group, and the least numerous—the French group, continued to use the German and French languages much in the same way as the English and the Japanese groups. The various groups developed in course of time a certain corporate exclusiveness, which is strengthened by the use at leading national medical schools in China of English (in most cases), German and French as the medium of teaching. As a natural consequence, the hospital and teaching staff are as a rule selected from amongst the "National Groups", with the result that the mutual aloofness is further strengthened. The manifest drawbacks of this system are fully realised by the leaders of the groups, who came together at the end of 1929 to form an inter-group union, which, however, has as its object the defence of the professional interests of the practitioner, and not the advance of modern medicine in China. Steps are to be taken in February 1930, however, at the Conference of the National Medical Association, towards amalgamation of all groups into one Association.

There is, thus, a divided medical profession, the bulk of which has not had adequate training. But even those who were educated at the best schools find themselves greatly handicapped in the exercise of their practice by the lack of medical institutions.

4. The hospital was unknown in China until very recently and was never recognised as a national institution in the development of her ancient civilisation. Hospitals owe their origin to missionary enterprise, although the first was opened in Macao in 1827 by Thomas Richardson Colledge (of the East India Company). The first missionary hospital of the Far East—the Ophthalmic Hospital of Canton, known to-day as Canton Hospital, was opened in 1835. The first missionary hospital in Shanghai was opened in 1834, after the establishment of dispensaries in Macao and Hong-Kong; in 1842 in Amoy; in 1843 at Ningpo; in 1856 in Foochow. By the year 1850, there were at least 10 such hospitals. By 1899, the number had grown to 61. Since that date the increase has been much more rapid. The Rockefeller Commission in 1914 inspected

88 hospitals in China and Hong-Kong, situated in 28 cities and 10 different provinces. Thirty-nine of these were classified as representing the work of missionary organisations (23 Protestant, 4 Catholic); 25 were non-missionary; 10 controlled by the Chinese Government; 3 by private societies; 2 by the Chinese Red Cross and 5 by foreign organisations. The whole number of hospitals at that time must have exceeded 200, of which the great majority were missionary institutions.

From observations made 14 years later we can state that, while great progress has been made, the conclusions of the Rockefeller Commission still hold good, *i.e.*, "that the study of the hospitals in China resolves itself almost completely into a consideration of missionary enterprise. The more important of the non-missionary hospitals, controlled by foreigners, are established for the care of foreign patients, and thus have no very definite influence on Chinese destiny. The hospitals under Chinese control, whether Governmental or private, are, with few exceptions, ineffectual, and they are of chief interest as demonstrating how small an impression high-grade Western medicine has as yet made in China".

While several very efficient hospitals under Chinese control have been organised since the Commission reached these conclusions, such as the Central Hospital in Peiping (with 125 beds), opened in 1918, the Shanghai and Peiping Red Cross Hospitals the Orthopaedic Hospital in Shanghai, the small Metropolitan Hospital (with 40 beds), the Women's Hospital in Tientsin, etc., and while very considerable improvement has been effected in the standard of the missionary hospitals, as regards modern buildings, the medical staff and the general level of technical work, yet the majority of the Chinese controlled hospitals still fall under the description of the Rockefeller Report, and the bulk of the missionary hospitals, particularly the smaller institutions, do not seem to have progressed much beyond the level reached ten years ago, when the China Medical Missionary Association issued (in 1920) the results of the "Enquiry into the efficiency of missionary hospitals in China". The enquiry brought to light the very difficult conditions under which many hospitals, even in important towns and cities, had to carry on their work owing to the lack of facilities for modern medical treatment.

Thus it was shown that:

- 34 per cent of the hospitals from which reports were received had no nurse whatever, either foreign or Chinese: 60 per cent not more than one trained nurse; 37 per cent depended entirely on the patients' friends for all nursing, while 62 per cent had no night-nurse;
- 37 per cent possessed no bedding, or only sufficient for a very few patients;
- 58 per cent were unable to clothe their patients in clean hospital garments;
- 8 per cent only had a pure water supply, and 6 per cent only had running water laid on throughout the hospital;
- 50 per cent seldom or never bathed their patients, and 43 per cent had no laundries, or only inadequate accommodation for dealing with the hospital linen;
- 34 per cent did not possess a steriliser for dressings, and 73 per cent had no means of sterilising bedding or mattresses;
- 37 per cent had no protection whatever against flies or mosquitoes and 65 per cent had no isolation block or courtyard;
- 31 per cent did not possess a laboratory of any kind, while 82 per cent had no bacteriological incubator;
- 87 per cent did not possess an X-ray apparatus.

The National Medical Association estimated that, in 1928, there were 580 hospitals in China. A number of these, as many as 35 per cent, were closed during the revolutionary years. The situation improved in 1929, but many remain unopened to-day. The general character of the missionary hospitals can still best be stated in the terms of the report of the Rockefeller Commission of 1914.

"One of the first things that the traveller in China learns is the inaccuracy of all general statements. The country itself is so enormous, the physical, geographical, social and political conditions differ so profoundly in the various parts, and indeed in closely adjacent districts, that what may be perfectly true of one city is wholly untrue even of its near neighbour. In few fields of activity is this more definitely brought home to one than in medical work, which, by its very nature, comes into intimate touch with that most conservative of classes—the common people. Moreover, in a study of medical work, as it is carried on by foreign missions, one soon finds that the accuracy of generalisations is limited, not only by the inherent local factors, but also by the great differences existing among the foreigners who control the work. This depends in part on the mission body under the auspices of which the work is done but more frequently on the individual who is in direct charge. Thus one doctor devotes his attention chiefly to the development of the medical efficiency of his hospital, while another is more interested in evangelistic work and regards the hospital more as a means to that end. One man has an executive, business-like mind, while in another this may be quite lacking. One man is, by nature and as a result of previous experience in his city, a conservative, while another is boldly a progressive. It is a common experience to be told that some thing "cannot be done in a hospital in China at the present time", and then to find that exactly this thing is being done in another hospital only a short distance away. Sometimes, of course, the local conditions are different in the two places, but not infrequently the difference lies in the doctors themselves. Besides the personal element in determining the differences found in medical work, there are other factors of importance. Financial support, mission policy, size of the staff, whether foreign or Chinese, the presence or absence of nurses, and other similar questions, all tend to diversify the efficiency and standards of different institutions."

5. The position of the practice of modern medicine in China may be summed up in a few sentences. There are some 4,000 general practitioners, of whom the majority have not had proper training; a very few competent general or special hospitals under Chinese control; a few foreign hospitals comparable to good-class institutions of the West, of which the majority are for foreign patients, a small number of modern missionary hospitals and a large number of small institutions much below the Western standard. There is no doubt, therefore, that in the exercise of his profession the Chinese Western-trained doctor finds himself much more handicapped than any of his colleagues in other countries, even of the Far East.

Despite the difficulties noteworthy results have been achieved during the last fifteen years by Chinese doctors. A devoted group of workers on the staff of the North Manchurian Plague Prevention Service, has won a record of successful campaigns during three widespread outbreaks of pneumonic plague. Useful work has been accomplished by the National Epidemic Diseases Prevention Bureau in Peiping in the preparation of biological products' in epidemiological enquiries and in anti-epidemic activities. At three or four centres, small groups of health officers have developed useful work (described in detail in another part of this Memorandum). Individual medical officers have taken a prominent part in initiating measures for the control of leprosy, for the creation of provincial hospitals and for the study of problems of industrial hygiene. Medical research has claimed the attention of another limited group which has distinguished itself particularly in the domain of physiology.

But, by far the largest proportion of those who have had proper training is engaged in private practice, in the exercise of which they are "swamped by the relatively great mass of poorly-trained practitioners of so-called Western medicine, jealous of changes, which they fear may endanger their livelihood and lessen their social esteem".

6. The ranks of the profession are very inadequately filled by graduates of existing medical schools.

Teaching of modern medicine consisted at first in the training of young men to assist the Western missionary doctors, for the most part in surgical procedures. The majority of the graduates of this apprenticeship system remained on the staff of the missionary hospitals, and some of them in their turn engaged in teaching, although they had usually very little general and pre-medical education.

7. At first, modern medicine seems not to have attracted Chinese intellectuals, either on account of the original reluctance for foreign intercourse and the importation of Western practices, or on account of the fact that the foreign teachers were not of high grade. The practice of surgery, ophthalmology and midwifery was particularly aimed at.

The first properly organised medical school was opened at Tientsin in 1881, under the patronage of the Viceroy, owing to the personal influence of a British missionary physician, Dr. Mackenzie. It has passed through various vicissitudes, and is known to-day as the Naval Medical College. Instruction is still given in English, although since 1901 the teaching has been in the hands of French practitioners and Chinese graduates trained mostly in France.

The present decadence of this school is symptomatic of the fate which has befallen the early institutions. Since 1914, the Government has established special medical schools in the provinces, the record of which, judging by the quality of the graduates, was so unsatisfactory that they did not receive support after the establishment of the National Government, and many of them ceased to function between 1925 and 1926, or have been ordered to be closed since. They were organised mainly by students who went to Japan to study medicine between 1905 and 1915 at lower-grade schools, *i.e.*, schools giving no real laboratory training in physics, chemistry and biology. A year or two after graduation, these men took posts as Deans and Professors, and established Government schools, such as the National Army and Medical College at Peiping, provincial schools at Hangchow, Soochow, Wochang, Paotingfu. A competent observer rightly states of these teachers that "they were unprepared for such heavy responsibility. The deplorable results which followed might easily have been anticipated. The presence here and there of a devoted worker, struggling against heavy odds, did little more than accentuate the prevailing gloom in such institutions, staffed mainly with incompetents, and subsisting on pitifully inadequate funds". Eleven or more of these provincial medical schools and several private Chinese schools have had a more or less precarious existence during the past ten years.

8. The missionary system of instruction is also changing. When the apprenticeship system gave way, the medical missions began organising small medical schools, mainly as a development of the classes for ward assistants which had been started in connection with a number of the more important hospitals. The movement spread, and missionary medical colleges were opened all over the country, although suitable teachers were few and funds for development limited.

At first, such schools required middle-school graduation or its equivalent for admission. The minimum standards of a high-type medical curriculum now require two years pre-medical work of college grade, followed by five years work in a medical school, of which the last year is the intern-ship in a hospital connected with the medical college. But very few missionary schools are up to this standard. Under the influence of the Missionary Medical Association it was decided, in 1914, that no further medical schools be established until the eight mission colleges then in existence had been made into efficient units, and it soon became evident that, even then, the number was far beyond the power of the missions to render effective.

In Annex 2 will be found the "Requirements for Registration in the China Medical Association (Missionary) as an approved Medical School in China", which it was found necessary to draw up in order to provide a standard at which to aim. At present, the only school in China fully up to

this standard is the Peiping Union Medical College. The schools holding registration are those at Mukden, Tsinan, Chengtu, and the Women's and Mission Colleges in Shanghai. The Hsiang Ya School at Changsha was provisionally registered before the break-up, and also the Hangchow Missionary Medical School, since closed.

In 1925-26 there were eight schools. These were:

*Organised as a School of a University:*

	Students	Total Faculty	Graduates to date
Tsinan, Shantung Christian Missionary School of Medicine . . . . .	90	25	193
Shanghai: St. John's University School of Medicine . . . . .	28	31	64
Szechuen: West China Mission University Faculty of Medicine. . . . .	39	36	20

*Separate Medical Colleges up to Full Medical College Standards:*

Peiping: Women's Christian Medical College . . . . .	8	20	?
Hsiang-Ya: College of Medicine . . . . .	49	24	43

*Separate Medical Colleges of College Grade, but not up to Medical College Standards:*

Mukden Medical College . . . . .	103	19	131
Hangchow Medical Training College . . . . .	65	23	150
Hackett Women's Medical College . . . . .	55	31	155
	<hr/>	<hr/>	<hr/>
	437	209	756

Some above schools have ceased to function. St. John's University may reopen this year. The Hangchow Missionary Medical School remains closed. The closing of these resulted either from revolutionary action or from reluctance to comply with the new regulations issued by the Ministry of Education of the Nanking Government. There is a scheme under discussion of organising a Federated East China Christian University in order to utilise fully the existing facilities.

Of the 437 students registered in 1925-26, about one-third has graduated since; others have dispersed with the closing of the schools, and the remainder are continuing their studies.

It will be noted that half of the graduates were trained at colleges "not up to the Medical College Standard" of the missionary classification.

9. Foreign non-missionary schools were organised at several places; an excellent Japanese school in Mukden; a very efficient German school in Shanghai, the "Yale-in-China", in the interior of the country at Changsha, and the short-lived "Harvard Medical School of China" in Shanghai. Most of these schools aimed at a high standard of education and achieved good results. The German school graduated perhaps more than any other foreign college, namely, upwards of 300 students in the 15 years of its existence. Its curriculum is that of German Faculties of Medicine before the introduction of the new standard. It has now become a national University, the Ministry of Education being responsible for the salaries of the teachers and the upkeep of the institutes. The medium of instruction continues to be German and the German staff is maintained.

The "Yale-in-China", which "had been one of the few institutions with sufficiently high standard to give it national significance", was voluntarily closed and has been changed into the newly established National Medical College of the Central University at Shanghai (Woosung) under its former Dean, Dr. F. C. Yen.

To the list of Protestant Missionary Schools must be added the high-grade but small French Jesuit Medical College "Aurora" in Shanghai, with clinical facilities at a big model charity hospital. It will probably close down, as it declines to comply with the Ministry's regulations.

But the determining factor in high-grade medical training was the creation by the Rockefeller Foundation in 1915 of the China Medical Board. During the last ten years the Board has given aid to medical education, to hospitals, and has granted fellowships and scholarships. It is largely due to this aid that the foreign mission hospitals and medical schools were able to raise their standard, but its most notable contribution consisted in the creation of a medical school of the very highest standard in Peiping. Pre-medical work began in this Peiping Union Medical College in 1917 and, in October 1919, the first medical classes began regular studies. It has at present some 200 students, and 51 have graduated since its inception. During the ten years of its existence, this school has exercised a profound influence on the development of modern medicine, public health and medical research in China.

10. In addition to the above, a number of schools of lesser importance, public or private, continue to exist and to attract large numbers of students of both sexes.

While the higher-grade colleges require two or three years pre-medical study after graduation from middle schools, the second-class colleges admit middle-school graduates without any further examination, although some of them require further study of the language which may be the medium of teaching at the school (e.g., German).

Two years pre-clinical and two to three years clinical studies constitute the curriculum of good schools. Facilities for post-graduate study do not seem to be largely utilised outside the Peiping Union Medical College.

The teaching staff of the higher-type medical schools is predominantly foreign, American, British, German, Japanese and French, with the exception of the almost purely Chinese Central University Medical College at Shanghai. The teaching staff is recruited either from among Universitarians (Peiping Union Medical College) or amongst medical practitioners (Tungchi, Aurora, St. John's and other missionary colleges).

11. The lower-grade schools present a melancholy picture. At one of them, in Shanghai, some 150 boys and girls, eager to learn, are huddled together in a small compound, with laboratories hardly big enough to accommodate ten people, without necessary apparatus or material (no practical anatomy for two years), with a clinic of thirty beds, shockingly lacking in cleanliness and in modern equipment, and with an operating room which demands peculiar powers of survival of the patients, who fortunately but seldom are condemned to be its victims. Such "schools" are operated by medical firms, who see their practice extended by the recommendations of their former students. The National Ministry of Education has ordered all schools of this type to be closed, but they continue to flourish in the International Settlement of Shanghai, unlicensed and unchecked by the Municipal Council. The graduates are allowed to practise in the Settlement, where registration of medical practitioners, foreign or Chinese, is not enforced.

Such medical "shops" are not, in fact, much better than some of the schools maintained by firms of old-type practitioners, which have sometimes as many as 100 students in one compound and give rudiments of teaching in modern pathology and other pre-clinical subjects, while emphasis is laid on Chinese pharmacology and the art of healing, to the complete exclusion of surgery and midwifery.

With the higher type of college at the top of the ladder and the low-class schools at the bottom, a gradation of types fills the intermediate stages. Ascending these steps, one finds an Army Medical School (recently closed) turning out military surgeons usually found wanting in knowledge and experience, a moribund provincial school, not divested of a certain charm of a peculiar learning, with practically no facilities for clinical teaching; another medical college, once famous, and now bearing marks of past glories and present decrepitude (no financial remittances for 44 months); a National Medical College, full of promise, with some 200 keen, earnest and zealous students, modest laboratories used to good purpose and with an out-patient department, reminiscent of illustrations in early-Victorian medical textbooks, while provision for medical teaching is inadequate in every sense.

12. The total output is not very great. The higher-class schools have not produced many graduates. The Peiping Union Medical College has turned out about 51 in the ten years of its existence and the graduation of all the others can hardly exceed 850 to 1,000.

It is very difficult to state accurately the present situation of medical schools in China. Some are closing, others re-opening and several are under the ban of the Ministry of Education. But there are actually in function of the higher type:

(a) *Foreign:*

In the North:

*Peiping* — Peiping Union Medical College, of the Rockefeller Foundation;  
*Mukden* — Medical Colleges (Japanese and Christian);  
*Tsinan* — Shantung Christian University Medical Faculty;

In the East:

*Shanghai* — Shanghai Medical School (Missionary);  
Women's Christian Medical College (Missionary);  
French School of Medicine (Missionary);

In the West:

West China Mission University College of Medicine;

In the South:

*Canton* — Hackett Medical College for Women.

(b) *Chinese:*

*Peiping* — The National Medical College;

*Shanghai* — The National Central University Medical School;

The National University Medical College (Tung Chi) (German);

*Canton* — The Chung Shan University Medical School;

The total enrolment this year may be estimated at:

Foreign schools. . .	some 720
Chinese schools. . .	some 500

13. Post-graduate studies and medical research do not attract many of the graduates; public health, or perhaps an administrative career a few more. But with the rapidly extending scope for modern surgery and diverse specialities, most of the graduates are attracted by the

pecuniary benefits of private practice. So-called private hospitals, which are, in fact, paying clinics, abound, particularly in the greater cities and foreign concessions, and the exercise of medicine is rapidly becoming commercialised. Specialists are many, and their numbers are increasing, but not many leaders have as yet emerged, even from the best schools. Hence the difficulty in the establishment of new modern colleges. Very few experienced hospital administrators have so far been discovered. The appeal of social service in public health, which calls for heavy sacrifice, perhaps to a higher degree in China than elsewhere, has been felt, up to the present, by only a small number of workers.

#### PROGRAMME OF REFORM.

14. The National Government has decided to close practically all provincial medical schools. Their intention is to improve and develop three Government institutions, namely, The National Medical College at Peiping, the National Central University Medical School at Shanghai, and the Chung Shan University Medical School at Canton. An experienced observer states that "these three schools alone can, for a few years, absorb more teachers and adequately-prepared students than the country is ready to supply, and it will be difficult enough to secure the additional funds of which these schools are in urgent need".

There is general agreement as to the necessity for exerting every effort to bring these schools up to a high standard and to maintain it. Opinions differ as to subsequent policy. Should these three colleges be regarded as "normal schools", for the preparation of leaders in the medical profession and teachers in other schools?

It must be remembered that they will only be able to graduate a limited number of students during the next five or ten years. There is, however, a growing tendency to demand that the Government should authorise the establishment of a number of second-grade medical schools, aiming at "quantity production". The National Federation of Practitioners is particularly insistent upon this and, last November, even requested the Government to reinstate the "special medical schools", namely, the provincial and other low-grade medical institutions which the Government had ceased to support. Apart from other considerations, there would be real practical difficulty in adopting such a course, owing to the lack of adequate teaching personnel. The unusual opportunities for private practice which are open to leading physicians in China makes it difficult even to provide the three high-standard schools with suitable staff. Advocates of the proposal contend, on these grounds, that the second-grade schools should be opened gradually as teaching staff becomes available.

Another view, held by certain very competent observers of medical education in China, is that, while "a strong *prima facie* case can be built up for such schools, in view of the immense number of doctors needed in China", such a programme is "impractical, unnecessary and undesirable at the present time and should not be officially encouraged". *Impractical*, because "a rather rare type of teacher is implied if men both competent and willing to undertake such a responsibility were to be sought . . . The plan to produce mediocrities is unnecessary, since the high-grade schools will themselves produce mediocre individuals in considerable quantity; mediocre schools will almost inevitably exist for a time, in any event, without the deliberate effort to create them, and, if proper attention is given to the training of nurses and technicians, the physicians will be relieved of most of that part of their work which does not require the highest possible skill". *Undesirable*, because "it will raise up a large number of practitioners fated to be handicapped throughout life by an inferiority complex, which will lead them to oppose progress, often with success. . . . If a time comes when a highly-trained medical profession is exerting a dominant influence on medical affairs, and sufficient numbers of well-trained men are available to supervise a larger number of second-rate assistants, then the medical profession of that day should decide for itself whether special schools should be provided for the production of those men".

The question of the standard of admission, of the length of study and, above all, of the language to be used as a medium of instruction, are also the subject of exhaustive discussion. The National School at Shanghai gives its instruction in English; the one in Canton in German; it is only the Peiping School which uses the Chinese language.

In view of the complexity of the problem, the Government has decided to set up a National Commission for the study of the reform of medical practice, and will await its findings before formulating a definite programme. The members of this Commission were selected by the Ministers of Education and of Health, and, among its nine members, there are high officials from the two Ministries, as well as leading members of the medical profession and directors of the principal medical schools.

The Minister of Education, on behalf of the Government, requested the Health Organisation to assist this Commission by supplying information on the programme of similar national commissions in other countries, and by the collaboration of the League's Commission on Education in Hygiene and Preventive Medicine, possibly delegating an expert for a few months during the present year to work in China in conjunction with the Chinese Commission.

### Chapter III.

#### PORT HEALTH ORGANISATION AND PROCEDURE IN CERTAIN CHINESE PORTS.

On September 14th, 1929, the Government of China invited the Secretary-General of the League of Nations to send a Commission of Experts to make a survey on port health and maritime quarantine in Chinese ports (cable from the Minister for Foreign Affairs to the Secretary-General of the League). After consideration and approval of this request by the competent organs of the League of Nations, we arrived in China on November 9th, 1929, to discuss the possibilities of future co-operation with the Ministry of Health, and to make a preliminary survey of quarantine for the purpose of furnishing to the Health Committee the information necessary to its future deliberations on this subject.

The Ministry of Health prepared a programme, and facilitated our work in every possible way, making generous arrangements for transportation, and collecting in advance needed information concerning the status of port health work. The Ministry also detailed the Director of the North Manchurian Plague Prevention Service to accompany us, as well as two members of the Quarantine Division, who took it in turns to visit ports in advance, and make all necessary preparations for the survey.

The ports actually visited according to the programme of the Ministry were, in chronological order, Shanghai, Tsingtao, Antung, Tientsin, Amoy and Canton. At Tientsin time did not permit a visit to the quarantine station, which is located some miles away from the city. Information on this station and on port health work at Newchwang is included in this report, on the basis of detailed reports furnished by the medical officers concerned.

The ports visited are, according to the Ministry of Health, the most important in China, and the methods adopted for carrying out port health work illustrate the general condition of port health practice in China.

#### GENERAL REMARKS ON PORT HEALTH ORGANISATION AND PROCEDURE IN CHINA.

It is the intention of the Chinese Government to transfer, in the near future, the responsibility for quarantine from the Ministry of Finance to the Ministry of Health.

Port health work in China is now carried on as a rule by the Chinese Maritime Customs, under the Ministry of Finance. The two exceptions are Canton and Tsingtao, where, in each case, the municipality has taken over the work. There are important differences in quarantine procedure at the various ports, so that it is hardly possible to make a general statement which applies to them all. In general, however, port health work was begun by the authorities of the foreign concessions in Treaty Ports as a measure of protection against ships arriving from ports where plague, cholera and smallpox prevailed. Later, the work was taken over by the Chinese Maritime Customs, and placed as a rule under the direction of the harbour-master, who is assisted by one or more medical officers and a varying number of auxiliary staff. The chief port officer is usually a foreign medical officer, sometimes engaged in private practice, hence devoting only a part of his time to this work, while, in a number of ports, Chinese medical officers are employed in a subordinate capacity. There are important exceptions to all these statements, as will appear below in the more detailed descriptions of the various ports.

In a majority of the ports, a number of quarantine regulations have been agreed upon and sanctioned by the Superintendent of Customs and the Treaty Power Consuls. These regulations differ widely, but, in the main, provide for the precautions to be taken with a ship having on board an infectious or suspected disease, or arriving from a port declared to be infected. At present, ports in the Far East are considered to be infected on the basis of the information furnished by the Eastern Bureau of the Health Organisation of the League at Singapore. In case a port fails to furnish either positive or negative information to the Bureau, it is also considered to be infected. In such cases, the Superintendent of Customs asks the Treaty Power Consuls to agree in declaring such a port infected, and when such agreement is received from all the Consuls, the port health officers are authorised to deal with ships arriving from that port according to the provisions of the sanitary regulations in force.

In general, port health authorities suffer from the lack of (1) sufficient competent staff, (2) adequate laboratory equipment, (3) proper accommodation for detention and hospital purposes, (4) equipment for boarding vessels and organising inspection of passengers and crew. These deficiencies will be apparent in the further description of each port. In general, Shanghai is the only Chinese port possessing equipment which may be regarded as reasonably adequate for purposes of deratisation. While it is true that little equipment is required for the use of sulphur dioxide, and that reagent is regarded as reasonably effective by many authorities, there are certain difficulties inherent in its use in Chinese ports. For these are not terminal or final ports, that is to say, vessels are only partly unloaded and fumigation must be carried on while such vessels are in cargo. Sulphur dioxide is destructive to many articles, and shipmasters are loth to permit the use of such a reagent. Again, while sulphur dioxide is effective when properly utilised, this implies trained crews experienced with the method. Sulphur dioxide fumigation is, moreover, one of the slowest methods of deratisation.

The lack of proper laboratory equipment is a hindrance to quarantine work, especially with regard to the examination of persons for cholera, and of rats for plague, not to mention cases, or suspected cases of dysentery and diphtheria. It may not be necessary in the case of

every port to have a laboratory attached to the quarantine service, for, in some ports, arrangements may be made for the municipal diagnostic laboratory to handle the work, but laboratory facilities must be at the disposal of every such service.

At present the examination of rats for plague in ports or on ships is much too limited, even non-existent, so that a valuable source of information on which preventive measures might be based is not utilised.

Lack of proper accommodation for the detention of suspects and carriers, and of hospital facilities for cases are serious deficiencies in the majority of the ports. In some cases where some such accommodation exists, it is so inconveniently located as to be almost inaccessible at certain periods of the year.

Lack of proper facilities for boarding vessels and for inspecting crew and passengers render port health work of uncertain value and cause vexatious delays to shipping. The ideal is to secure the maximum of protection from infectious diseases with the minimum of interference to shipping. This implies sufficient competent staff with proper equipment, a centralised control, and identical sanitary regulations applying to all the ports. The different regulations now applied in the various ports must constitute a source of annoyance to shipping interests.

#### PORT HEALTH WORK AT SHANGHAI.

Shanghai is one of the great ports of the world, and the most important of Chinese ports. During 1928, the number of vessels entered and cleared at the Maritime Customs under general regulations was 22,268, with a tonnage of 34,586,406. By far the greater amount of this tonnage represented ocean steamers, but it also included 4,276 river steamers (6,206,818 tons), 905 sailing vessels (213,998 tons), launches and native craft, including chartered junks. This was the largest amount of tonnage entered and cleared at the Maritime Customs between 1919 and 1928 (*Shanghai Annual Trade Report and Returns, 1928*).

These vessels come from ports all over the world as well as from Chinese ports. The largest passenger and freight vessels plying in the Far East enter Shanghai port, which has excellent harbourage and wharfage facilities.

The port is located on both banks of the Whangpoo River, twelve miles from its entry into the Yangtze River at Woosung. The situation of Shanghai makes it the entrance port for the Yangtze River, which is navigable to large river vessels (minimum navigable depth 8-10 feet) as far as Hangkow (600 miles) and to smaller vessels in the summer for another 800 miles, not to mention navigable tributaries.

The city group of Shanghai consists of the Chinese city (a special municipality) and two Foreign Settlements, one International and one French. The estimated population of these three areas is as follows (*China Year-Book, 1929-30*):

	Foreign	Chinese
Foreign Settlement . . . . .	30,565	802,700
French Concession. . . . .	9,920	348,076
Special Chinese Municipality . . . . .	—	1,700,000
	40,485	2,850,776

Separate Health Departments exist in each of the three areas, the latest to be established being that of the special (Chinese) municipality (1926). Vital statistics are not well developed, and the returns from the International Settlement appear to be the most accurate.

A description of health conditions in Shanghai will be found in other chapters of this report. The present chapter deals only with port health organisation and procedure. It should be noted in passing, however, that Shanghai suffers from periodic outbreaks of cholera and smallpox, and both may be considered as being endemic in the Shanghai area. On this account the health authorities of other Chinese and foreign ports periodically declare Shanghai infected, and deal with shipping from that port accordingly.

#### *History of Port Health Work in Shanghai.*

In 1894, the epidemic of bubonic plague in Chinese ports was responsible for the establishment of a sanitary station at Yangtze Point, about two miles outside the harbour limits, as they were defined at that time. The plant appears to have consisted of lighters for the housing of staff and the detention of contacts.

No further attempts to establish a permanent station were made until 1899, when the continual menace of bubonic plague led to the construction of a sanitary station on Chung Pao Sha Island in the Yangtze River opposite Woosung. This station was utilised only during epidemics of plague until 1902, when the port sanitary regulations were revised to cover other malignant contagious diseases, and the station was kept open permanently. An isolation station for Chinese was established on Pheasant Point at the entrance to the Whangpoo River.

In the meantime, it had become necessary to find a new location for the foreign station at Chung Pao Sha Island, which was being rapidly washed away by the action of the tides. A site was selected next to the Chinese Isolation Station at Pheasant Point, and the new station was opened in 1905.

It consisted of accommodation for Chinese patients, suspects and contacts who were placed under the care of a Chinese medical officer appointed and maintained by Chinese merchants until 1915, when the department was taken over by the Chinese Red Cross. There were also



facilities for the accommodation of foreigners, in charge of the port health officer, who had also sole jurisdiction with regard to examining, admitting and discharging all patients and contacts, whether Chinese or foreign.

In 1912, both Chinese and foreign departments were moved a short distance south of the old site to new land reclaimed by the Conservancy Board owing to dredging operations carried on by the latter. This is the station at present in use.

The foreign side consists of 22 mou<sup>1</sup> of land on which stand fairly substantial buildings capable of housing twenty-four persons, or even more in case of necessity. The bedding and furniture in store are sufficient for only eight persons, however. There is ample space in the station for the erection of temporary huts.

The Chinese station, located immediately adjacent to the foreign station, consists of fairly substantial buildings capable of housing thirty-six patients comfortably, or more in case of necessity.

Both stations suffer from the lack of running water, or even pure water; there is no provision for bathing except the large earthenware jars known as kongs, and there is no lighting system. There is an old steam autoclave which may be utilised, but it is insufficient for disinfecting purposes. The most serious defect, however, is the situation of the station, a long distance from the quarantine anchorage, and at low tide so far away from the water that it would be prohibitively expensive to build a proper landing-stage. As it is, patients and suspects must be carried over the mud. Furthermore, a highway runs along the front of the station, and as there are no natural barriers on any side, contacts can easily break out of the station, and have done so.

The staff consists of a port health officer (foreigner, full time) one sanitary sergeant, one male nurse, two cooks, a carpenter, a washerwoman, a bamboo-man, seven coolies and two boatmen (with a sailing sampan). This last does not include the personnel of the Chinese side, which includes one full-time Chinese doctor and his staff. This doctor has no duties other than to maintain the Chinese station and care for any Chinese patients or contacts who may be isolated.

These two stations lie idle most of the year.

The port health officer lives in a house opposite the station at Woosung Forts, over a mile away. He is fairly conveniently located as far as boarding vessels in the quarantine anchorage in the Yangtze is concerned, although this anchorage is not well protected from storms from certain quarters. His boarding vessel is the Sanitary Service tender "Pootoo", a staunch vessel of about 100 tons gross, with a crew of 15 men, which he considers unnecessarily expensive to maintain and larger than is needed for the purpose.

#### *Income and Expenses.*

The sanitary account is made up of grants from the following sources:

	Hk. Tls <sup>2</sup> yearly
Superintendent of Customs. . . . .	10,772.00
Shanghai Municipal Council . . . . .	5,386.00
French Municipal Council . . . . .	1,885.08
	<hr/>
	18,043.08
Annual expense of upkeep (average last five years):	
Sanitary Station <sup>3</sup> . . . . .	907.49
S.S. "Pootoo" . . . . .	1,620.96
Annual working expenses (average last five years):	
Sanitary Station <sup>3</sup> . . . . .	538.52
S.S. "Pootoo" . . . . .	3,223.04
Salaries of staff. . . . .	17,832.85
	<hr/>
Total annual expenses . . . . .	24,122.86

This account is not self-supporting. A certain amount of revenue is derived from the fumigation of vessels let out on contract to the Shanghai Disinfecting Company, but this revenue is used as a sinking fund to pay off an advance made to the company by the Customs.

#### *Work of the Shanghai Disinfecting Company.*

The headquarters of this company is located near the Bund. The equipment consists of:

1. The "Jessie O. Hughes", a floating disinfecting-plant fitted with two gas generators, one for carbon monoxide or carbon dioxide fumigation, the other for sulphur dioxide. The first is capable of delivering 130,000 cubic feet of gas per hour, the second only 35,000 cubic feet. The hulk is also equipped with 16 shower baths divided into compartments, cold and warm water laid on. There is a dressing-room adjacent to the bathrooms where clothing may be removed and passed down a steel chute to a steam steriliser below. This clothing may then be returned to the bathers when they step out of the shower. The hulk is fitted with the machinery necessary for operating fans, heating water, lighting, etc. There is a small office for the medical officer.
2. The "Junie" is a steel tug of about 120 tons gross. She has ample power to tow the "Jessie O. Hughes" anywhere the latter may be required.

<sup>1</sup> Regarded at Shanghai by custom as equivalent to one-sixth of an English acre.  
<sup>2</sup> A Haikwan (or Custom's) tael exists as book currency only. It is supposed to contain 583.3 grains of silver, 1,000 fine. The Mexican dollar contains 417.8 grains, fineness, 902 65/75. The value of silver with respect to gold varies considerably but during our visit 2.50 (Mex.) equalled \$1.00 (Gold).  
<sup>3</sup> Foreign side only.

3. The "Poo Chi" is a steel tug of over a 100 tons burden. She is fitted with a gas generator for carbon monoxide and carbon dioxide gas. So far the vessel has not been placed in commission as the "Jessie O. Hughes" has been able to take care of all necessary fumigation.

During the period from November 1st, 1924, to October 31st, 1929 (five years), the company has fumigated 4,846 vessels with an underdeck tonnage of 11,243,912. During the course of this fumigation 43,509 rats have been destroyed. Only a small proportion of these rats were examined and, among the small number, none infected with plague were found.

Carbon dioxide gas is usually used, but sulphur dioxide is employed occasionally for steerage, crews' quarters, etc. The work is apparently done very thoroughly but without sufficient preliminary inspection for traces of rats, and the opening and breaking down of rat harbourages.

As noted above, a charge is made for fumigating vessels, and a percentage of the receipts is paid into a fund for paying off the advance made by the Customs to the disinfecting company.

The port sanitary regulations require vessels to be fumigated if a certificate of fumigation within six months cannot be produced.

#### *Port Sanitary Regulations.<sup>1</sup>*

These regulations, applying to plague, cholera, yellow fever, smallpox or scarlet fever, were issued by the Superintendent of Customs and the Board of Treaty Power Consuls who have the authority to declare when ports are infected, when such ports are no longer infected, and to authorise such other precautions as may be expedient to prevent the importation or exportation of epidemic disease. These regulations provide for the anchorage of vessels at quarantine, their inspection by the port health officer, and the precautions to be taken with vessels having on board cases or persons suspected of having any of the diseases mentioned above. Rules are also laid down with regard to the fumigation of lighters, and to certain articles from ports declared to be infected. There is a tariff of fees applying to the sanitary station, another for the various procedures of fumigation, and a list of precautions to be observed on steamers in process of being fumigated.

#### *New Location for Sanitary Station.*

A block of land near the quarantine anchorage is owned by the Chinese Maritime Customs and, we understand, is being reserved for the new sanitary station which is so urgently needed. The location and topography are ideal for the purpose, for there is a sea-wall to prevent washing, the land is well protected, and comparatively large vessels may discharge passengers there without the necessity of making use of a long landing-stage.

#### *Present Quarantine Procedure.*

There is only one port health officer, and he is on duty from 6 a.m. to 6 p.m. daily. When he is obliged to visit Shanghai, the duties of inspection must be handed over to a non-technical sergeant. Under the circumstances, only vessels arriving from ports declared to be infected, or having on board bodies of persons who have died from unknown causes, are boarded and inspected.

In 1928, the port health officer boarded 156 vessels and inspected 27,443 crew and passengers. Of these, 122 vessels were from Vladivostock, Hong-Kong and Canton, ports declared to be infected, the first because it furnished no returns to the Singapore Bureau of the League of Nations, the second and third on account of epidemics of smallpox. The port of Pakhoi was also declared to be infected with plague and cholera during the year.

Seven vessels were found to be infected. Only two of these were detained for over an hour.

Of the vessels from non-declared ports, twenty-three had deaths on board, four were importing corpses from foreign ports and seven were infected. Fifteen corpses were landed at the sanitary station for disinfection, the remainder landed at Shanghai after inspection.

Old gunny bags, carried on these vessels from Hong-Kong and Canton, were disinfected.

When foreigners suffering from infectious diseases are found on ships at quarantine, they are removed to one of the isolation hospitals at Shanghai.

The port health officer believes it would be wise to increase his staff so that additional medical officers might board and inspect a larger number of vessels. He believes there is evidence to show that Shanghai is sometimes infected with cholera from abroad or from other Chinese ports. In his opinion, at least, the larger junks should also be boarded and inspected. For proper inspection of vessels carrying a large number of passengers, a force of sanitary police would be necessary, so that the work might be properly organised and be carried through accurately and without delay.

He also considers that it would be advantageous to station a vessel having on board a gas generating apparatus at Woosung, under his immediate direction.

The port health officer also complains of the bad conditions of the sanitary station, particularly with respect to the difficulty of landing passengers, the lack of proper equipment and the impossibility of restraining the movements of contacts. He is strongly in favour of building the new station on the site already selected by the Customs.

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<sup>1</sup> These were agreed upon and sanctioned by the Superintendent of Customs and the Treaty Power Consuls at the port in 1925, taking the place of others adopted previously. The British Government has not, however, signified its approval of the regulations in their application to British subjects, in view of certain inconsistencies between the regulations and the terms of the International Sanitary Convention of 1926.

### THE PORT OF TIENTSIN.

Within recent years (1927-1928) the usefulness of this port has been greatly impaired by silting, so that the navigable depth of the river has been reduced to 11 feet or less. Large vessels now anchor outside Taku Bar and cargo is discharged into lighters and towed up the river. Tongku and Taku are villages situated on the river between the Gulf of Pechihli and Tientsin harbour, the sanitary station being located at Taku, at the river mouth, a distance of 15 miles from the anchorage outside the bar.

The port health work is carried on by the Customs, under the direction of the harbour-master. The personnel consists of a port medical officer (a foreign practitioner, devoting only a part of his time to the work) located at Tientsin, two Chinese medical officers (full time) at the sanitary station, one dispenser and cashier, one clerk, one nurse, one cook, one servant, five policemen, two sailors and four coolies.

The following description of the sanitary station was furnished by the Assistant Port Health officer. It was built some thirty years ago and is now in a dilapidated condition, there being much corrosion from the action of sea-water. There are eight rooms for first-class passengers, capable of accommodating sixteen persons, two second-class rooms, capacity four persons, and an isolation quarter of twenty rooms, capacity 40 patients, the last ruined by soldiers who were quartered there from 1924 to 1929. The station possesses a steam autoclave for disinfecting purposes.

Although the quarantine anchorage is fifteen miles distant from the sanitary station, the port health officer has no means of transport, except a row-boat, and must depend on the Customs or other vessels which may have business to transact with ships at anchor.

There is no laboratory at the station, and only one microscope, so that bacteriological examinations, other than of a simple microscopical character must be made at Tientsin, a long distance away.

Fumigation of vessels is carried on by means of sulphur dioxide generated by the pot method.

Ports where the chief epidemic diseases are reported to be prevalent by the Singapore Bureau of the League of Nations are declared to be infected on the motion of the Customs Commissioner and the approval of all Consuls and Chinese sanitary authorities at Tientsin. The Customs Commissioner usually calls a meeting of those concerned for this purpose.

All vessels arriving from a port declared to be infected must undergo medical inspection at Taku Bar. After inspection, a certificate is delivered by the port health officer, which is handed to the Customs officer when he boards the vessel.

Should a case of infectious disease be found on board, the patient is removed to the sanitary station and the vessel placed in quarantine for a variable period depending on the nature of the disease (cholera five days) and the development of further cases. In 1929, four ships were quarantined for periods of two days in three instances, and eight days in one instance for smallpox, epidemic meningitis and cholera.

Warships excluded, 2,389 vessels arrived at the port of Tientsin in 1929. Of these, 268 vessels were boarded and inspected. From April 16th to June 30th, 159 ships coming from Shanghai were boarded and inspected at Taku anchorage on account of the epidemic of acute cerebro-spinal meningitis at Shanghai. From August 15th to October 13th, 109 vessels were inspected on account of the epidemic of cholera at Shanghai.

For the twelve months from October 1928 to October 1929, the expenses of the quarantine service were as follows:

	Mex. dollars
Salary and wages . . . . .	8,073.22
Maintenance . . . . .	1,024.55
Repairs . . . . .	622.92
Total . . . . .	9,720.69

For the last three years, payment of these expenses has been made by the Customs. Prior to that period, salaries were paid by the Peiyang Sanitary Department, the former Chinese Provincial Board of Health.

### TSINGTAO.

Tsingtao is an important port in Kiaochow Bay, developed by the Germans, who leased the territory in 1898, captured by the Japanese in 1914, and returned to China in 1922.

Port health work was, in all probability, started during the German occupation, but the quarantine or sanitary station was built by the Japanese. It is now utilised as barracks for soldiers and will require extensive repairs before it can be used for port health work.

The municipality has charge of the quarantine work, which is in the harbour-master's department, divided into four bureaux, as follows:

- (1) General administration;
- (2) Wharves and warehouses;
- (3) Engineering;
- (4) Harbour, including quarantine section.

There is one chief quarantine officer (medical) and three assistant medical officers. Two clerks complete the staff of the quarantine division.

The plant and equipment consist of the sanitary station mentioned above and a steam launch for boarding vessels.

The sanitary station is admirably situated on a point jutting into the bay, separating the quarantine anchorage from the port. Vessels at the quarantine anchorage are within easy distance of the quarantine station. The station consists of eight solid masonry buildings, each capable of housing sixty or eighty passengers, and smaller buildings for administrative purposes. The walls and roofs are still good, but the interiors have been partially destroyed.

The quarantine service has no laboratory, no isolation quarter, although the municipal isolation hospital might be used for this purpose. The City Health Commissioner is organising a laboratory in the isolation hospital which might be utilised, at least temporarily, by the quarantine service.

There are sufficient port sanitary officers to permit of all vessels being boarded on arrival.

The rules and regulations governing the management of the Quarantine Section of the Harbour and Wharf Administration of the City of Tsingtao are issued in book form in English and Chinese. Chapter 1 provides that every ship entering the port shall be inspected to determine whether passengers or crew are infected with plague, cholera, smallpox, scarlet fever, typhoid fever, typhus fever, diphtheria, dysentery, yellow fever and cerebro-spinal meningitis. The medical officer is authorised to inspect cargo, and is required to report the presence of certain explosives. Vessels are required to be fumigated every six months.

Chapter 2 deals with disinfection and fixes the tariff of fees for the various disinfecting procedures.

Chapter 3 defines infected vessels and authorises the port medical officer to take certain measures such as removal of suspects to the quarantine station, disinfection and quarantine. The periods of quarantine are fixed at ten days for plague and five days for cholera and other contagious diseases.

Chapter 4 gives the tariff of inspection fees after office hours, and the charges for treatment and subsistence at the Quarantine Station or Isolation Hospital, or on board ship.

There is an old disused launch with apparatus for fumigating ships, but its condition is too bad to permit of repair. Fumigation of ships is carried on by means of the sulphur pot method. There is no examination of rats for plague.

More than 2,000 vessels enter the port every year, and nearly all are boarded and inspected. In 1927, 1,594 vessels, gross tonnage 4,211,512, were inspected. These vessels had on board 300,741 passengers and crew.

In 1926, four vessels were found with cases of cholera on board. No infectious diseases have been found on board ships since that time.

The expenses of the quarantine service are as follows:

	Mex. dollars yearly
Salaries of medical officers . . . . .	4,320.00
Wages of clerks and launch crew, expense of operating launch and miscellaneous. . . . .	7,680.00
Total . . . . .	12,000.00

It is understood that the receipts of the Harbour-Master's Department include wharfage dues amounting to about 7,000 dollars a year and that this sum is credited to the quarantine section, so that the deficit to be made up from other sources amounts to approximately 5,000 dollars.

#### THE PORT OF ANTUNG.

Antung is situated on the right bank of the Yalu River, about eight miles from its mouth, in the Peninsula of Liaotung, South Manchuria. It is the first Chinese station on the railway connecting Korea and Manchuria. The city is divided into two parts, the Chinese city proper and the Japanese railway area, the two combined having a population of about 75,000, of which 10,000 are Japanese. The city has suffered in prosperity owing to two serious floods in 1923, which did much damage to crops and property in the neighbourhood. The port has decreased in importance in recent years, chiefly because of the depression in the timber trade, formerly a great asset.

Owing to its northerly situation, the port is closed for four months during the year because of ice formation in the Yalu River.

The number of vessels entered and cleared under General Customs Regulations is shown by the following table (Customs Statistics):

Year	No. of vessels	Tons
1925 . . . . .	1,008	446,798
1926 . . . . .	990	363,526
1927 . . . . .	1,018	430,484
1928 . . . . .	834	338,206

In addition, there is a comparatively large river traffic, the number of vessels entering and clearing each year under Customs' Inland Steam Navigation rules averaging over 1,000, with a tonnage of over 120,000.

#### *Port Health Organisation and Procedure.*

Port health work is directed by a board consisting of the Mayor of Antung (Director), the Customs Superintendent (Co-Director) and the Customs Commissioner (Co-Director and Treasurer).

This Board controls the Antung Quarantine Station which is located eight miles from Antung on the right bank of the Yalu River, near its mouth and immediately behind the village of Santau-lang-tou.

The port health officer is a Chinese physician, with foreign medical and public health training. He lives at the quarantine station.

This station consists of four blocks of buildings on a site comprising approximately 12 mou of land, about 150 yards from the water-front.

The buildings are of brick, substantially built, and the station is surrounded by a solid wall.

1. In the main block are located the consulting room, dispensary, surgical rooms, hospital supply room, the laboratory, the office and living-quarters of the officer.

2. The hospital ward has a capacity for twelve beds or more in case of necessity, and a room for a nurse.

3. The disinfection building contains a large steam autoclave, and is divided into two parts by a partition, in which the autoclave is set.

4. The detention building has a capacity for 35 beds, or slightly more in case of necessity.

There is a good water-supply, and the general equipment is in good condition.

The building of the station was sanctioned by the Ministry for Foreign Affairs in 1923, and it was opened in 1924. It cost about 35,000 Mexican dollars.

The laboratory was organised last year, as the result of a grant of 1,600 dollars by the Board. The equipment is modest but well chosen, and should permit the port medical officer to make any examinations necessary for the conduct of quarantine.

The staff consists of the port medical officer, one dispenser, one dresser and eight attendants. The budget is 12,000 Haikwan taels per annum, but the whole sum is seldom expended, and there is a considerable saving to the credit of the account.

The Sanitary Regulations for the Port of Antung and Tatungkow were sanctioned by the Superintendent of Customs and agreed to by the Consular Body of the port in 1911.

They provide for the declaration of infected ports by the usual procedure (Superintendent of Customs and Treaty Power Consuls) and for the treatment of vessels having on board cases, or suspected cases of plague, cholera or other infectious disease, known as infected vessels. Vessels which arrive within seven days of their departure from a port declared infected are known as suspected vessels.

Directions are given regarding anchorage at quarantine, medical inspection, detention of suspects and contacts, etc.

The import of certain articles from infected ports is forbidden (rags, fresh fruit, vegetables, coffins, corpses, etc.), and rules are laid down with respect to disinfection. There is no provision for deratisation of vessels at regular intervals.

There are also regulations in regard to the import of certain articles, such as rags, furs, vegetables, gunny bags, etc.

#### *Recent Quarantine Procedure.*

During 1929, quarantine measures were taken against ships arriving from Shanghai for cerebro-spinal meningitis and cholera, and Osaka and Swatow for smallpox. Twenty-eight ships, having on board 3,107 persons, were inspected, but no cases were found.

#### *Work of the Hospital.*

The quarantine work is not sufficient to occupy all the time of the port medical officer and his staff. Consequently, cases of infectious disease occurring in the vicinity are occasionally cared for in the hospital, although the Quarantine Board objects to this practice. On the other hand, navigation at Antung is open for only eight months during the year, and for four months the port health officer and his staff must remain idle. During the winter months the station is almost inaccessible from Antung, for traffic in the river is held up by ice, and the road, eleven miles long, connecting the city to the station is practically impassable except on foot or on horseback. A severe frost set in just before we arrived, so that the road was passable to motors, but the surface was so rough that one car broke down during the journey, and we expected the other to give out at any moment. The journey each way took nearly two hours, under circumstances which were said to be exceptionally favourable. The village near the quarantine station is so small as to provide hardly any work for the staff.

On the other hand, the port medical officer states that public health work in Antung is practically non-existent. There is a Health Department in the Public Safety Bureau, which devotes the main part of its attention to the cleaning of streets. City hospital accommodation includes a Danish Mission Hospital in the Chinese city and a South Manchurian Railway Hospital in the Japanese railway area, both doing good work. The city authorities are considering the registration of births and deaths and the building of an isolation hospital. They have improved conditions at the native market and opened up several thoroughfares and a public park.

The port medical officer would like to spend his spare time in Antung carrying on medical and public health work, for which his training has fitted him. It is unfortunate from this point of view that the quarantine station is located so far away from Antung, but, should the city build an isolation hospital, this might be utilised by the port medical officer and his staff. The work of the quarantine hospital at Newchwang, described hereafter, is not confined to port health activity, and there appear to be certain advantages in this method. Well-trained medical officers,

who have little opportunity to apply in practice the knowledge they have acquired, are inclined to become merely administrative officers, while the localities in which these officers are stationed suffer from the lack of trained medical and public health personnel.

The port medical officer recommends the building of a new block at the quarantine station in which to house the dispensary and laboratory. He considers it necessary to increase the accommodation of the detention camp, which has not now a capacity sufficient to detain passenger-contacts, in case an infectious disease is discovered on board ship. He also points out the advantages of having port health work directed by a Governmental health agency instead of by a lay board.

#### NEWCHWANG.

The Mission did not have an opportunity to visit Newchwang, but the medical officer in charge of the new quarantine hospital was kind enough to prepare a very complete report for us from which the following details are abstracted. This medical officer also met us at Mukden and furnished us with much additional detailed information.

Newchwang was opened to foreign shipping as a Treaty Port in 1864. It is situated on the western coast of the Peninsula of Liaotung, about sixteen miles from the mouth of the Liao River. Since 1899, this river has had two channels to the sea, thus diverting a certain amount of river traffic from the old port and reducing the navigable depth of the river.

Prior to 1907, Newchwang was the chief outlet for Manchurian trade, but, since that time, Antung and Dairen have proved powerful competitors. Newchwang, like Antung, is icebound during four months of the year, while Dairen is open all the year round. There is also a troublesome bar at the mouth of the Liao River, which prevents the entry of large ocean steamers. Above Newchwang, the river is so shallow as to prevent, almost entirely, river carriage of grain to Newchwang, formerly an important item. The population of the city is about 107,000 including slightly more than 8,000 foreigners, of whom nearly all are Japanese.

In 1928, 1,724 ocean steamers, of a gross tonnage of 1,568,304, entered and cleared under general Customs Regulations, while the number of vessels from inland waters which entered and cleared was approximately (figures are not complete) 436, with a gross tonnage of 213,556.

The harbour regulations for the port of Newchwang, agreed to and sanctioned by the Treaty Power Consuls at the port in so far as they concern foreign interests, contain only one paragraph on quarantine. This paragraph provides that vessels having infectious disease on board, or a death from an infectious disease (or suspected in either case), must anchor at an appointed place and fly the quarantine flag until granted pratique by the health officer. Vessels arriving from ports declared to be infected must conform to the quarantine regulations, which, however, are not published in any greater detail.

The Newchwang Quarantine Hospital is situated in the western part of the city, near the native Customs. It stands on a lot three acres in area. The hospital was opened on July 10th, 1920, and consists of:

1. A main block, containing the hospital proper (30 beds), nurses' quarters, operating, anaesthesia and sterilising rooms, out-patient department, laboratory, pharmacy and rooms for the resident medical officer;
2. A disinfection block, containing the large steam autoclave, capable of handling mattresses and bedding, and various rooms for attendants and administrative arrangements;
3. An isolation block, consisting of five wards, lavatories, baths, etc.;
4. A mortuary.

The detention camps consist of three rectangular buildings (150 feet by 24 feet) each capable of housing 100 contacts and the necessary attendants, a block for women, capacity 50, and an "L" shaped block for private families, capacity 13 families, or 100 individuals.

The examination block (built in 1927) consists of waiting and examining, dressing and consultation rooms, doctor's quarters, etc.

The hospital proper has central steam-heating and electricity is supplied throughout.

The staff consists of the Director and Chief Medical Officer, one port health officer, one resident medical officer, one nurse, two dressers, three attendants, one seamstress, one cook and two coolies.

#### *Port Health Work.*

During the period July 12th, 1929, to October 10th, 1929, 136 vessels were boarded and inspected, having on board 10,215 passengers and 7,924 crew. During the same period three vessels were quarantined for periods of seven days, and 89 passengers detained. The port health officer is a foreign practitioner, devoting only a part of his time to quarantine work.

#### *Hospital Work.*

In addition to the port health work carried on by the personnel of the station the hospital is utilised as an isolation hospital for Newchwang, and an out-patient department is maintained. The number of out-patients treated has increased steadily from 1920-21, when 3,225 out-patients applied, to 1928-29, when the number was 11,254.

In 1920-21, there were 21 medical and 22 surgical patients admitted to this hospital, while in 1928-29, the numbers were 40 medical and 61 surgical. During the same period (1920-1929)

a number of patients suffering from infectious diseases was treated, *i.e.*, 81 cases of cholera, 13 of erysipelas, 10 of diphtheria, 5 of scarlet fever, 4 of measles, 3 of smallpox, 3 of typhoid fever, 43 of mumps and 2 of meningitis.

This practice of using a quarantine station for medical and preventive work in the community in which it is situated is an interesting development. It is true that this station was planned for the purposes in view, and hence is better adapted for utilisation for both purposes than the ordinary quarantine stations. Moreover, the port which it serves is ice-bound during four months of the year.

#### AMOY.

Amoy, population about 250,000, is the principal city of Fukien Province. It is the seat of an extensive emigration, principally to the Straits Settlements, the Netherlands East Indies and the Philippine Islands. Approximately 100,000 Chinese emigrated to these countries through Amoy during 1929 (60,000 to the Straits Settlements, 16,000 to Manila and the balance to Java). Amoy is a port of call for coasting vessels as well as for larger vessels sailing from Chinese ports to Japan and other foreign countries. The city possesses a fine natural harbour, and extensive improvements are being made to the wharfage facilities. Amoy is situated on the mainland, and there is a Foreign Settlement on a small island (Kulangsu) opposite the city, where the principal hospitals are located. Vessels usually anchor in the roads between the mainland and Kulangsu.

The port health work is in the hands of the Chinese Maritime Customs, as in the majority of Chinese ports. There is a part-time port health officer who is a foreign practitioner. The port possesses no quarantine facilities of any kind, either for the detention of contacts or for the isolation of patients with infectious diseases.

The quarantine regulations were agreed to and sanctioned by the Superintendent of Customs and the Treaty Port Consuls at the port on August 11th, 1920.

They are divided into definitions and regulations proper. The definitions relate to the following terms: port health officer, infected vessel, suspected vessel, healthy vessel and quarantine anchorage. The diseases and conditions provided for in the regulations are cholera, typhus fever, yellow fever, plague, smallpox, scarlet fever, cerebro-spinal meningitis, any other infectious (or suspected) disease, or dead bodies suspected of having been infected.

The regulations provide for the declaration and notification of infected ports, and prescribe the measures to be taken in respect of vessels arriving from such ports. The only exceptional precaution applies in the case of ships from a port infected with pneumonic plague, which cannot be admitted to pratique until the lapse of seven days from departure.

Directions for the discharge of cargo, the use of ratguards and fumigation are laid down for vessels arriving from plague-infected ports. The regulations also contain lists of conditional and prohibited imports and dangerous articles, with particulars, where necessary, concerning each item.

#### *Port Health Procedure.*

Vessels are boarded and inspected by the port health officer only when they arrive from a port declared to be infected. The present port health officer, an American surgeon in charge of the Hung Ning Hospital, was appointed in December 1929, and has not carried out any port health work so far. Enquiry from the Customs failed to disclose any reports on previous port health work, and the former port health officer could not be seen, as he was abroad.

#### *Examination and Vaccination of Emigrants.*

Certain precautions are required by the three countries receiving emigrants from Amoy (Straits Settlements, the Philippines, Java) with respect to physical condition and vaccination status. At present this work is done by two foreign practitioners. Emigrants who intend to land at the Straits Settlements are dealt with by a British doctor, the former port health officer and his assistant. The present port health officer examines and certifies the emigrants for the Philippines and Java. The examination in the latter case consists of an inspection of the emigrants on board the vessel which is to carry them to their destination. They are stripped to the waist and pass in review before the medical officer, who notes the presence or absence of any evident disease, and observes whether the vaccination he has performed previously has taken. If the vaccination has not been successful, it is repeated. The emigrants are not under the observation of the medical officer before embarkation, except when they appear for vaccination. There are no buildings for isolating and observing these would-be emigrants before they sail, so that they live in native boarding houses. The customary charge for the vaccination and certification is one Mexican dollar.

The salary of the port health officer is 75 Haikwan taels a month, and apparently this is the only expense attached to port health work at Amoy. The present incumbent is also attached to the Customs as medical officer for the treatment of the Customs personnel.

Smallpox and cholera prevail at Amoy. There was an epidemic of plague in 1926, consisting of 112 cases. Dysentery appears frequently as a cause of death on the death certificates at Kulangsu. Morbidity and mortality statistics are not, of course, even moderately complete.

PORT HEALTH WORK AT CANTON.

The present port health service at Canton was established on September 16th, 1926. Previous to that time the quarantine work was in the hands of the Chinese Maritime Customs, and the port health officer was a foreign medical practitioner, with one or more Chinese medical assistants. In 1926, the work was taken over by the Municipal Bureau of Public Health and placed under the direction of the Chief of that Bureau. As there are two entrances to Canton harbour from the sea, two quarantine stations have been established, one comparatively near the City, at Nam Shek Tau, and the other some miles away at Whampoa. Two port health officers are stationed at each of these places. We were able to visit the more important and nearer of the two stations at Nam Shek Tau.

This consists of an office building for the two port health officers, situated on the bank of Pearl River, on a low hill overlooking the quarantine anchorage. The building is of substantial construction, but of small size, consisting only of six or seven rooms and is utilised only for administrative purposes. There is a plan to build, on a small lot adjoining, close to a village, an isolation hospital and a building for housing passenger-contacts, but it is doubtful if there is sufficient space. The Municipal Bureau of Public Health possesses three motor-launches which may be used for boarding vessels. There is no disinfecting apparatus either for clothing or for fumigating ships.

The amount of shipping entering the harbour is as follows (Report by the Quarantine Service):

Year Sept. to Sept.	Number of Ships	Tonnage	Passengers
1927 . . . . .	1,192	1,352,987	54,728
1928 . . . . .	1,442	1,449,180	63,271
1929 . . . . .	1,006	1,079,822	41,905

All ocean-going vessels entering the harbour are boarded and inspected by the port health officers. Since the establishment of the service, there have been discovered on board ships entering the harbour two cases of cholera, two of beri-beri, four of pulmonary tuberculosis, four of pneumonia, two of leprosy and one of measles.

The annual expenditure of the service amounts to 17,544 Mexican dollars, all of which is obtained from the Municipal Treasury through the Bureau of Public Health.

The quarantine service possesses no laboratory, but there is a municipal laboratory in connection with one of the city hospitals where all necessary bacteriological investigations may be carried out, although it is inconveniently situated for this purpose.

The City of Canton possesses one isolation hospital for infectious diseases, with a capacity for forty-two patients, and, in addition, there are 44 beds for this purpose scattered among three other hospitals. In 1929, 222 cases were treated in the municipal isolation hospital, including 1 case of cholera, 61 of dysentery, 20 of leprosy, 32 of smallpox, 12 of measles, 38 of typhoid fever.

At least two of the port health officers—those located at Nam Shek Tau, the station nearest to the city—devote only a part of their time to the work, the balance being given over to private medical practice.

*Port Quarantine Procedure and Regulations.*

Port quarantine regulations were adopted by the municipality in 1927, and are published in English and in Chinese in pamphlet form. These regulations provide that all ships entering the harbour must be inspected by the port health officers. An exception is made, however, in the case of ships plying only in the river, as in the case of the packets which provide daily and nightly service for passengers and freight between Canton and Hong-Kong. Neither does the quarantine service at Hong-Kong inspect these ships.

The diseases subject to quarantine are cholera, smallpox, plague, typhus fever, yellow fever and any other infectious diseases which the health officer may consider dangerous to the safety of the port.

A port having an average daily number of three or more cases of any of the above diseases is declared to be infected.

Ships are declared infected if a case of smallpox has occurred on board within twelve days, or cholera, plague or yellow fever within seven days.

Ships are designated as suspected if, having had cases of disease subject to quarantine on board, no new case of smallpox has occurred within twelve days, or of cholera, plague, typhus fever or yellow fever within seven days.

Passengers and crew of infected or suspected ships must remain on board, be removed to the observation station or, in exceptional cases, report daily for observation until the twelve or seven-day period has elapsed.

The regulations contain specific instructions for the anchorage and inspection of ships, and for action in case an infectious disease breaks out while a ship is in harbour.

One of the articles provides that no ship shall enter the harbour before 6 a.m. or after 6 p.m., the hours when the port health officers are on duty.

Penalties are provided for any breach of the regulations. The City Health Officer is planning the purchase of a Clayton apparatus for fumigating ships. In regard to disinfection, the regulations provide that a ship must be disinfected when deemed necessary by the health officer.



## POLICY OF THE MINISTRY OF HEALTH WITH REGARD TO QUARANTINE.

1. The Ministry of Health has decided that the port quarantine services which it must take over require to be reorganised, modernised and brought under central technical control. These services will form a Division of the Ministry.
  2. It is the Ministry's intention to undertake this work by stages and after careful study so that every change effected will be an obvious improvement on the present procedure. With this object in view, the Ministry has requested that the present study be continued and a very careful and thorough examination made of the principal Chinese ports by a medical officer from the League's Health Section experienced in port health work and familiar with national as well as international requirements of port health procedure.
  3. As a first step, the Ministry will take over the work in Shanghai in the summer of 1930, in order to bring about improvements in the present port health work, which suffers from a lack of personnel, equipment and financial support. This step will also provide training facilities for the medical officers to be assigned to other ports in the future. The Ministry hopes that all ports will be provided with modern and efficient quarantine services within two years.
  4. The Ministry desires to establish a system of port health work which will eradicate obsolete practices and institutions, while playing as effective a part as possible in the prevention of disease. For this reason, it wishes to take a full share in the study of port health procedure which the Health Organisation of the League will carry out by means of an interchange of port health officers in the Far East in 1930. This study of Chinese ports will constitute a necessary preliminary to the preparation of this interchange, for which the Ministry will nominate one or more Chinese medical officers of the port health service.
  5. The Ministry of Health has indicated its desire that the Health Organisation should provide facilities for the training of two or three medical officers who will be given important appointments in the new port quarantine services. Arrangements for these individual missions have been made.
  6. Realising fully the value of international co-operation in building up a system of port health protection, since this is a matter in which the interests of other countries are involved, the Ministry of Health desires the assistance, not only of the Health Organisation, but also of the Transit Organisation of the League, in view of the shipping and commercial interests involved. In the Ministry's view, the expert knowledge and experience possessed by the leading maritime countries, made available through these League organs, will not only be a source of strength in the organisation of the new services, but will also ensure friendly relations and mutual confidence in its future work.
- For these reasons, the Ministry has requested the Health Organisation of the League to study, in conjunction with the Transit Organisation, the steps that should be taken in the transfer and reorganisation of the present quarantine services. The Ministry hopes that the preliminary study begun by the present Mission may be completed, and a scheme of reorganisation drawn up during 1930.

### NEED FOR CONTINUANCE OF PRESENT STUDY.

1. Reference has been made already to the fact that the sanitary regulations applied in the various ports are not identical. These rules and regulations need revision to bring them into line with the most recent international agreements in regard to quarantine. The preparation of a code of regulations suitable for recommendation to the Ministry of Health should be one of the objects of the further study.
2. An interesting point has been raised in connection with port health work at Newchwang and Antung. At Newchwang the isolation hospital belonging to the quarantine station is not restricted to the care of patients removed from ships, but also performs a useful service to the community in which it is located, since it has out-patient departments, and is being used for the treatment of infectious cases from the city.  
A similar policy has been adopted by the port health officer at Antung, but here the quarantine station is almost inaccessible to the city during the winter months, and the port health officer wishes to utilise his staff for hospital work in Antung during the period when quarantine work is at a standstill.  
There is need for a further study of this question. At this time, it is only necessary to point out that, in the ports in China to-day, the number of qualified doctors and of modern medical institutions is all too few, so that those which exist must be fully utilised. Moreover, there are distinct advantages in furnishing a field of daily experience to medical officers whose technical ability requires constant exercise.
3. With respect to each port there are important problems concerning coastal and river traffic and the regulation of lighters. Further detailed study should determine the recommendations to be adopted concerning the proportion of this traffic which needs inspection. The possibility of periodical deratisation of the various types of lighters also requires further study.
4. Lastly, it is necessary to determine what shall be the relation of the port health service to the local health departments and medical institutions in each case, for only by the closest co-ordination and fullest utilisation of all existing health agencies can the greatest efficiency be secured.

The fact that we are able to lay before you a certain amount of information concerning public health and medical problems in China is due in very large part to the unremitting efforts of national, provincial and municipal authorities, who gave us every opportunity of studying their work and who discussed with us very frankly their problems and plans.

Thanks to the facilities given by these authorities and by the leaders in medicine, education and other fields of social work, the short time we were able to spend in each locality was utilised to the best advantage.

Our best thanks and sincere appreciation for these services and for many personal kindnesses are due to Dr. J. Heng LIU, Acting Minister of Health, as well as to the members of his staff, particularly Drs. P. Z. KING and L. C. YEN.

To other members of the Government, particularly to Dr. Chang MON-LIN, Minister for Education, and the Minister for Foreign Affairs, Dr. C. T. WANG, our gratitude is due for their friendly reception and much practical assistance.

Our itinerary did not bring us into many provincial capitals, and we need only gratefully acknowledge here the assistance given by the Chairman of the Chekiang Provincial Government, Chang JEN-CHIEH, the Director of the Provincial Department of Civil Affairs, the latter being responsible for health work in the province, and the Provincial Health Commissioner.

Municipal authorities everywhere received us warmly and rendered every possible aid, in particular at Greater Shanghai, Nanking, Hangchow, Tientsin, Peiping, Tsingtao, Canton, Amoy, Wusih and Antung. Our longer stay in Greater Shanghai, Hangchow and Peiping permitted us to benefit by the hospitality of the municipal authorities of those cities in greater measure than elsewhere, and we must make particularly appreciative reference to the kind offices of Dr. Hou-ki HU, Health Commissioner of Greater Shanghai, and of the Mayor of Hangchow.

Our study of port health work brought us into contact with officials of the Chinese Maritime Customs, who afforded us every facility and to whom we are specially grateful, in particular to the Director-General and the Inspector-General, as well as to the Superintendent and Commissioner of Customs at each port we visited.

Wherever we travelled, the University authorities showed readiness to befriend and assist us, and grateful acknowledgments are made to these authorities in Hangchow, Tientsin, Peiping, Canton and elsewhere.

The Faculties of Peiping Union Medical College and the National Medical School at Woosung were indefatigable in helping us to collect information on medical education, hospitals and hygiene generally. To Dr. F. C. YEN, Dean of the latter, and to Dr. J. L. GRANT, Professor of Hygiene at the former school, are due our most sincere thanks.

Dr. Tsu Min YI, member of the Central Executive Committee of the National Government, was unremitting in his efforts to place at our disposal the most valuable sources of information, as well as advice and counsel.

We are particularly indebted to those technical officials who accompanied us during our travelling in China; Dr. Tsefang HUANG, Counsellor of the Ministry of Health; Dr. Wu Lien TEH, Director of the North Manchurian Plague Prevention Service; and Drs. TSAI and Ho of the Quarantine Division of the Ministry of Health.

During our stay in Shanghai we were greatly assisted by the authorities of the International Settlement, particularly Mr. FESSENDEN, Secretary-General of the Municipal Council; Dr. C. Noel DAVIS, Commissioner of Health and his staff. Grateful acknowledgment is also due to the authorities of the French Concession at Shanghai, in particular to the French Consul-General, and M. VERDIER, in charge of municipal affairs.

Space does not permit of our recording the names of every individual, Chinese and foreign, who helped us in so many different ways to secure some slight knowledge of the medical and sanitary problems and needs of China.

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Annex I.

LETTER FROM THE MEDICAL DIRECTOR OF THE HEALTH SECTION  
OF THE LEAGUE OF NATIONS TO THE ACTING MINISTER OF HEALTH, NANKING.

Shanghai, December 16th, 1929.

On our arrival last month (November 9th), by the direction of the Council of the League of Nations, in response to the communication addressed by your Foreign Minister to the Secretary-General of the League (September 14th, 1929), and in pursuance of the invitation to serve as one of your international advisers, with which your Ministry has honoured me (January 31st, 1929), we were informed that you would desire the Mission to undertake, in addition to a preliminary survey of the quarantine arrangements at certain ports (Shanghai, Tientsin, Dairen, Antung, Tsingtao, Amoy, Canton) and an examination of steps to be taken for the establishment of a National Quarantine Service, a general study of the organisation and functioning of medical and sanitary institutions in various special municipalities and administrative divisions, with particular reference to medical education, to the training of sanitary personnel, to the status of a provincial health organisation, to the activities of the National Epidemic Prevention Bureau and to the problem of the control of cholera and smallpox in the Shanghai area.

2. It was our common understanding that proposals for continuous collaboration on some or all of these questions would be framed to be presented to the Health Committee of the League of Nations, and before entering into a discussion of the proposals, I may be permitted to state the spirit in which your Government's invitation for co-operation was received at Geneva. The Members of the Council of the League at a public meeting assured the representatives of your Government of their desire to see your request acted upon to the fullest extent and every assistance afforded to you in the development of public health in your country. I need not add how gladly the Health Organisation follows the Council's desire and how eager my colleagues and myself are to be of service in the work of sanitary reconstruction undertaken by your Government.

3. The League's Health Committee and, on its report, the League's Council will learn with the greatest interest the nature and the extent of the proposals which will issue from our present discussions, and the League, in its turn, will have to define the limits and modalities of the projected collaboration.

4. In framing the national programme of its activities, the National Ministry of Health fully realised the immense amount of effort required to ensure primary but effective and indispensable elements of sanitation at the chief centres of national activity—both urban and rural, to provide them with adequate facilities for medical relief, to organise in these places fundamental medico-sanitary institutions, to set up the framework of a devoted, well-trained and efficient public health service, and to introduce into the practice of the nation's daily life health habits adapted to the national conditions.

Your Ministry recognised that the attainment of a modern standard of public health is dependent as much upon the economic development and the financial re-organisation of the country as on the success of the educational effort, and that a general condition of stability is a factor of major importance in the work of national reconstruction. No health services, be they national or international in scope, have responsibility over these factors, some of which escape even the control of national Governments.

5. The Ministry has therefore decided, if I am interpreting accurately the trend of our discussions, to concentrate on a few fundamental issues with the primary object of forging an effective arm with which to carry out its stupendous work in successive stages. This programme includes:

(a) The formation of an efficient technical headquarters staff for the study of essential problems of public health in selected areas and for practical application in the field, as well as for the training of public health personnel and auxiliary staff;

(b) The setting-up of a network of indispensable medical and public health institutions in two or three areas on a sufficiently wide scale to serve as a nation-wide training-field, yet limited in scope to the possibilities of a thorough and effective realisation;

(c) The intensive study, jointly with the Ministry of Education, of the existing facilities for medical education and of the programme of reform for the immediate future;

(d) The gradual establishment of a National Quarantine and Epidemic Diseases Prevention Service;

(e) The initiation of control, on a co-operative basis, of cholera and smallpox in the Shanghai area.

6. This programme, to be rendered effective, requires, in your view, a considerable effort, and it is your hope that its success will gain the confidence of the leaders of the nation for the young Chinese Public Health Service. This same confidence, which constitutes the solid foundation of stability, the Ministry desires to ensure on an international scale for the projected quarantine service, as well as for the other projected creations, such as the Headquarters Technical Service, the extended and stabilised National Epidemic Diseases Prevention Bureau and the new national hospitals, etc., by a close association and interchange of technical information

and experience with the sanitary administrations of other countries through the intermediary of the League of Nations, as well as by calling upon the experience of the League's Health Organisation for the effective realisation of the Ministry's programme.

7. The spirit of partnership in which you wish the subject of collaboration approached is fully in consonance with the League Health Organisation's methods of working. The Health Organisation has insisted on the principle that public health activities are essentially national in their character, and that, while fundamental problems of public health do not differ, their solution must be adapted to the psychology of each country. It is for the process of this adaptation that the pooled experience of other services is made available by the League. There is therefore reason to believe that your projects of collaboration may be materialised, and it will now be convenient to discuss them one by one.

#### THE NATIONAL FIELD HEALTH SERVICE.

8. It is my understanding that you propose utilising your technical staff for field studies and activities, retaining at the Ministry only such administrative staff as may be needed for ensuring liaison with other Ministries and for non-technical, legislative and administrative work, etc.

The technical staff would be transferred to a national field health service, directed by the technical head of the Ministry.

The activities of such a technical service would not be limited to the Central Station, however, but would extend to whatever centres the Ministry decided to study or supervise.

At the headquarters, plans would be made for the study of the most important public health problems, such as:

- (a) The fundamentals of community sanitation (most suitable types of wells, bath-houses, disinfecting-places, houses, dispensaries, hospitals, etc.);
- (b) Methods of collecting demographic statistics (deaths, births, morbidity, mortality);
- (c) Epidemiological problems;
- (d) Quarantine problems;
- (e) Medical relief, such as health centres for social medicine.

These studies could be undertaken by the technical staff at health stations located in the centres to which the Ministry has decided to limit its activity in the beginning, and these health stations would provide experimental areas furnishing the central authorities with the data on which to base the future health policy for the country.

In order to provide the technical staff with the necessary facilities for its work, these health stations in the various centres will be linked up with the central station which would have divisions corresponding to the various subjects with which it is dealing, such as sanitary engineering, epidemiology, epidemic diseases, etc. The technical staff appointed to these divisions would be entrusted with the task of supervising the health work in the several areas of demonstration, giving expert advice on technical subjects, preparing programmes of study in respect of the major health problems mentioned above and, eventually, of training the various categories of sanitary personnel.

You have suggested that, for this training and other purposes, the central station might itself consist of various stations, each division having charge of one or more—or, in some cases, collaborating in the direction of one or more—such stations. This would provide the technical staff with field work located within a reasonable distance for teaching purposes, while at the same time it would permit the Ministry to participate practically in the solution of pressing health problems which are of national as well as international importance (cholera, smallpox, etc.).

It is, further, the Ministry's intention to utilise the existing hygienic laboratory and the municipal diagnostic laboratory as the laboratory divisions of the central field station, as well as to secure the collaboration of the Department of Hygiene of the Central National Medical School.

When once fully developed, the central field station would be entrusted with the training of health officers, sanitary inspectors, health visitors and a special category of "sanitary secretaries", to whom the Medical Officer could confide a major part of administrative office routine. The field service would likewise organise courses in public health for various types of educational and social workers.

The work of the field service would thus, in many respects, correspond to that of schools of hygiene in various countries. These schools are linked up by the Commission on Education in Hygiene and Preventive Medicine of the League's Health Organisation. You desire to profit by the experience of the Commission for the working out of the programme of the central field station. The Government is also anxious to obtain continuous expert advice on the activities of some divisions of the field health service by the delegation, for a stated period of time, of experts of the Health Organisation.

You wish also to recommend for League scholarships certain selected medical officers who will be given posts of responsibility in the field service.

From the observations which our Mission was able to make, the creation of purely Chinese national health and medical institutions, involving Chinese technical, administrative and financial responsibility, with such foreign advisory collaboration as each case will, in your opinion, warrant, is one of the greatest needs which confronts you. In the field of national education, there are numerous outstanding examples of the signal success of such endeavour; of the effective support it can command at the hands of the Government, national and provincial, as well as

of the public generosity, and sometimes real munificence which it attracts. We believe none of your initiatives is more worthy of wholehearted support than the decision to set up national public health and medical institutions.

But an institution, to become a real school and centre of study and of action, must acquire its own tradition of technical accomplishment if administrative efficiency and if financial solvency is to be assured. This tradition cannot be created unless the staff has a reasonable security of tenure, ensuring its continuance for a sufficient period to permit it to secure results. In view of your limited resources in personnel and financial possibilities, it was a wise precaution which you took to limit the number of the new institutions to two or three at most (the national field health service and its central station, and two new national hospitals).

To ensure stability, the Ministry intends, I understand, to follow the example of great educational institutions by endowing the new institutions with the statute of an autonomous institution under Government control, with a Government grant-in-aid or endowment, and with an advisory board composed of public-spirited citizens representing the various medical groups as well as public effort in educational, social work, professional and trade union associations, etc.

You conveyed to us also your plan of obtaining through the Ministry of Finance the assignment of funds for the establishment and the maintenance of the central field station and, in part, for the first National Hospital.

#### CREATION OF FIRST HOSPITALS OF NEW TYPE AS A BASE FOR MEDICAL AND SANITARY ACTIVITIES.

9. (a) *First National Hospital.* — You informed us that the majority of the hospitals of China are under foreign missionary or educational management, and it is not surprising, therefore, that only a few Chinese medical officers have had full responsibility in the administration of public hospitals. It is therefore the Ministry's intention to promote the building of a 400-bed hospital under exclusive Chinese responsibility, in order to provide facilities for medical relief for the population of the special municipality, to serve the purpose of clinical teaching, and to be utilised in conjunction with the Public Health Department in a manner to be determined later on.

We cannot but applaud sincerely your decision, and will gladly recommend that the officer selected as director of the hospital be given a study scholarship by the League to acquire practical experience in hospital administration in two or three selected countries.

(b) *A Provincial Hospital as a Base for Medical Relief and Public Health Activity in a Province.* — There is not at present in China, according to the Ministry's information, a properly constituted health service, nor adequate provision for medical relief in any of the provinces, even the most prosperous, and those which have enjoyed the longest term of peace and stability. Active steps are, however, being taken by certain progressive provincial and municipal Governments to provide the population under their care with modern and comprehensive sanitary services and essential public health improvements (such as reliable water supplies for capital cities).

You have selected for our study the Province of Chekiang, with its capital city of Hangchow, which lends itself admirably for demonstrating, on a nation-wide scale, the possibilities and methods of applying a considered programme of sanitary reconstruction.

The enlightened Government of the province has a corps of unusually able and energetic well-trained and public-spirited chief officials. The Mayor of Hangchow is a sanitary engineer who graduated at the Massachusetts Institute of Technology. The province has the requisite conditions for economic development, both agricultural and industrial, and its population (estimated at some 26 millions) is industrious and prosperous. The capital is but four hours distant by rail from Shanghai, ten hours by motor road from Nanking, while hundreds of thousands of pilgrims from all parts of China worship annually at its temples, and tens of thousands of tourists are attracted every year by the beauties of its scenery.

The Provincial Government is proceeding with the application of a general plan of reconstruction. It has established a school for the Civil Service (300 students), which is now functioning normally; it is developing a large Higher Agricultural School (500 students), whose graduates will serve as instructors throughout the province; it co-operates with a reconstituted National University, led by a group of enthusiastic young workers in the fields of education and social study.

The Mayor is to provide Hangchow with a modern water-supply, and has obtained, on the recommendation of the Provincial Government, the support of the Ministry of Finance for floating "Water-Supply Bonds", which, under the circumstances, will be bought up by large credit institutions. The Mayor maintains the streets of the city in a state of remarkable cleanliness and is anxious to improve and modernise the city hospitals and other sanitary institutions.

The Government of the province has decided on a vast sanitary programme; the building of a 400-bed general hospital; the training of midwives (two for each "hsien"), the post-graduate training at the Peiping Union Medical College of selected groups of medical practitioners who are to act as health officers in the "hsiens", the establishment of a provincial public health laboratory under a German technician, a new leprosarium, an endeavour to organise modern school medical inspection at Hangchow, an active interest in the development of physical culture. The breadth of this programme and the activities already undertaken are evidence of an earnest desire for a thorough and systematic reform.

The Ministry has decided, therefore, to co-operate with the Governments of the province and of the municipality in the fulfilment of their programmes. You believe that the provincial hospital should be a joint undertaking of the province and of the municipality with such national support as will be feasible at the proper time. You intend proposing that the hospital be considered as the headquarters and the base of all the public health activity in the province. In the view

of the Ministry, the first obligation of the authority is to provide sick relief. There is only a handful of western-type medical practitioners in the province, and some of these have neither had opportunities of proper training, nor are adequate facilities for laboratory diagnosis or institutional treatment now at their disposal.

Under the circumstances, proper medical relief can be afforded only by hospitals and clinics directed by fully competent doctors, and efficiently administered. But the population has not yet fully developed the habit of utilising the existing institutions. In your view, relief should be brought to the homes of the patients; the joint national-provincial hospital should organise an efficient social service and establish its own dispensaries in the several urban districts. In two or three neighbouring "hsiens", permanent clinics and travelling dispensaries should be organised by the Hospital and staffed by its personnel, utilising at the same time local medical practitioners who would benefit by this association, both by enlarging their knowledge and experience, and, materially, by fees for services rendered. You thought that the "hsien" service should only expand gradually as the staff of the hospital acquires experience and corporate tradition, and that the hospital should also become a training-school for bedside nurses, for midwives and social visitors.

In Chekiang Province, the health services are yet to be created. The sanitary authorities have hardly anything to administer and their real usefulness lies in the field. You felt they should be associated from the outset with the Provincial Hospital, their office should be situated there, and the provincial laboratory should also be located at this hospital. The health officers would have to act through health visitors and sanitary inspectors. One of their major preoccupations will be the sanitation of urban and rural districts selected for the first programme of application. Thus, in addition to the bureau of the Health Officer, with its demographic and epidemiological work and to the provincial laboratory, will need to be added a division of sanitation established, like these others, in the hospital. The school medical service will use the hospital dispensaries and clinics. In the detection and isolation of infectious cases, the hospital information service and other facilities will be utilised. The dispensaries and clinics established by the hospital will, in fact, be converted into health centres.

A big provincial health and medical unit so constituted would, in your view, be capable of serving for medical teaching, while it will necessitate a high standard for its comprehensive medical personnel.

You have emphasised that, if this endeavour is to succeed, a careful plan should be worked out in co-operation with the Central Health Authorities. You have asked me, and the provincial and municipal authorities have likewise desired to ascertain, if the League's Health Organisation might co-operate in the development of such a project. We have agreed with you to include on the list of candidates for special studies abroad to be arranged by the League's Health Organisation the Chekiang Provincial Health Officer and one senior officer of the national field health service, who will be commissioned by the Ministry for work in Hangchow. We will likewise suggest to the Health Committee the advisability of arranging for expert advice of the competent technical Commissions and for their guidance in carrying out the programmes and the study of selected problems (malaria, intestinal infection, rural sanitation, training of personnel, etc.).

#### ASSOCIATION WITH THE EDUCATIONAL MOVEMENT.

10. The central station of the national field health service, the First National Hospital and the Chekiang project constitute in your view, a programme of primary necessity, on which the energies of your staff will have, of necessity, largely to be concentrated.

But the Ministry, being a national institution, and the sanitary needs of China being so stupendous, has also to face its larger responsibilities of helping in the general reconstruction of the country by promoting the improvement of sanitation. As pointed out already, you believe this improvement is bound up with many factors, over which the Ministry has no control, and in face of the overwhelming character of the task you feel the need of directing the effort along certain strategic lines, and of associating public health activity with a well-organised national movement of a cognate character.

The educational movement appears to be your natural ally. It derives its strength from the innate and widespread desire of your people—however humble their status in life—to give their children the best possible education, and this popular sentiment is based on a centuries-old tradition. The movement is led by a large and increasingly numerous group of singleminded scholars and young workers who are imbued with a real spirit of service, and already able to point to truly remarkable achievements. This movement has maintained its pace throughout the agitated period of revolution and post-revolutionary adaptation, and has succeeded in securing stability for its varied institutions by the universal acknowledgement of its accomplishments, while following the lead and directions of the National Government. It has received financial support from proper national sources, while maintaining its international relationships.

The primary purpose is to create a new mentality in the coming generation. If this fails, you feel you will not succeed. If it succeeds, as everything leads to believe it will, you are confident that public health will benefit in the measure of the closeness of the association.

You have decided, therefore, that, in planning new "Health Demonstrations" and in helping to set up new health centres, you will establish them at normal schools, at training colleges for elementary-school teachers, at agricultural colleges, in conjunction with the Department of Education, of the several national universities, and in association with the field experiments, such as the Mass Education Movement.

You are doubtful of the value of courses in health education given to teachers and adolescents who have no opportunity of practising the precepts taught to them in the course of their everyday life, and it is the Ministry's hope that the health centres and demonstrations will provide fields for this real experience, indispensable for those who are to be the educators of masses of the population less able than themselves to grasp the significance of public health education.

You have discussed with us the possibilities of a useful collaboration with the League in this field. Your projects will evolve as time goes on. We could train abroad health officers to take charge of the more important of these educational demonstrations. We might, in collaboration with other organs of the League, give similar facilities to some of the teachers and educationalists particularly interested in health work as a means in general reconstruction schemes. These two types of scholarships may be considered for next year's programme while the Health Organisation discusses with the competent Organisations of the League how best to supply the several educational institutions with adequate and systematic information on analogous activities elsewhere in the world. The question of physical education for school-children may be brought before the Health Committee by Dr. Tsu Min Yi, whose collaboration we will gladly invite in this field of study of the League's Health Committee.

#### MEDICAL EDUCATION AND A POST-GRADUATE MEDICAL COLLEGE AT SHANGHAI.

II. In the several schemes here discussed, medical education was mentioned as one of your major preoccupations. With but a few thousand practitioners of modern medicine for the whole of your immense country, and a majority of them graduates of schools of an inadequate standard, the difficulty felt by the Ministry in advising on methods of safeguarding public health is a very real one. The Ministry is vitally interested in the rapid improvement of the standard of the present medical practice. It is no less anxious to see a steadily increasing supply of properly trained young doctors being made available for any system of medical relief in China which ultimately emerges from the present and future studies and consultations.

You intend collaborating with the Ministry of Education by delegating your representatives to a Commission on Medical Training, composed, in addition to the representatives of the Ministries, of delegates of premier National Medical Colleges, of delegates of Medical Associations, and of expert educationalists. In conversation with the Minister of Education, we informed him that similar National Commissions have been constituted abroad, as the question of the reform of medical training is being considered in a number of countries. I understand it to be the desire of the Government to obtain for the Chinese National Commission all available information on the progress of work of the several National Commissions, and, for this purpose, the Government may propose asking the Health Committee for the collaboration of its Commission on Education in Hygiene and Preventive Medicine, which may delegate an expert for several months to China to work in conjunction with your National Commission. The Advisory Board of the Singapore Bureau will discuss, at its session in February 1930, the advisability of collecting information on medical education in the area of the Bureau's activities, and this information, when collected, will be made available for your Commission.

The improvement of the practice of medicine as exercised at present in China may, in your opinion, best be effected by utilising at a great centre such as Shanghai as many as possible of the existing hospitals, both foreign and Chinese, for the provision of post-graduate courses in general medicine and in special clinical subjects. As such courses are held in most of the important university cities of the world, we will gladly provide you with full relevant information.

You would propose the organisation of two or three types of courses. First "refresher" courses in special subjects such as clinical, laboratory and bacteriological diagnosis, midwifery, pediatrics, surgery, ophthalmology, ear, nose and throat work, radiology, etc.

Secondly, general courses covering the entire field of clinical medicine, with such additional pre-clinical subjects as may be found necessary, and divided, perhaps, into three and nine months' courses, according to the training of the medical practitioner taking the course.

There would be, in your view, no need to organise a special medical school if the attempt at federating the existing institutions and those to be created proves successful. It would suffice to have a headquarters office, with a central medical library, study and conference rooms, which may be combined with those of the Medical Associations.

A Committee constituted on the same lines as that of the Commission on the reform of Medical Education would make arrangements with existing institutions to draw up the programme of the courses. This Commission would comprise the leaders of the best medical schools, and you feel strongly that it should decide on the Chinese language as the medium of teaching. To achieve this object, the courses at the foreign hospitals would have to be given by the Chinese members on their medical staff. This method would also avoid the difficulties inherent in the formation of a multi-national Faculty and of an inter-institutional representation.

The candidates for these courses would probably fall into two or three categories:

(a) Medical men in practice eager for "refresher" courses which could be attended without interfering with their professional work;

(b) Medical practitioners graduated from lower-grade schools, who would derive an immediate pecuniary benefit from the certificate delivered at the end of the general course;

(c) Medical officers of various State, municipal and voluntary organisations delegated or seconded to attend any of the three types of courses.

A system of scholarships might be devised for young medical men without established practices, who are unable, without aid, to follow the longer courses.

Should the Shanghai Post-Graduate Medical College prove successful, it would serve more than one purpose. In addition to raising the standard of medical practice, it would serve to bring together in an atmosphere of common work the various medical groups. It would represent a serious effort at introducing the Chinese language as a medium of teaching and contribute to the publication of medical handbooks and monographs in Chinese. Finally, it would allow of selecting from among the students outstanding men of mature judgment and large experience, who only need additional knowledge and continuous contact with a serious medical institution to qualify as teachers at the existing medical schools or at those to be established.

I understand the Ministry would be glad if one of the medical officers entrusted with organising post-graduate medical training could be included in the list of candidates for the League of Nations Health Committee's scholarships.

#### THE CONTROL OF EPIDEMICS.

12. You have asked the League's Health Mission to consider in particular the steps to be taken in establishing a national quarantine service, and in the control of cholera and smallpox in Shanghai.

##### (a) *The Port Quarantine Service.*

With respect to the port quarantine services, I understand that the National Government has decided that these should be reorganised, modernised and brought under a central technical control which would act as a division of the Ministry of Health. It is the Government's purpose, however, to undertake this work by stages, so that every change effected will be a demonstrable improvement over the present procedure. In your opinion, it is necessary to continue a very careful and thorough study of the principal Chinese ports, and for this purpose, at your request, a medical officer from the League's Health Section, experienced in port health work and familiar with national as well as international requirements of port health procedure, will complete the survey commenced already by us.

The Government has also decided, as a first step, to take over the port of Shanghai in the summer of 1930 in order to bring about improvements in the present port health work, which suffers from a lack of personnel, equipment and financial support, as well as to provide training facilities for the medical officers to be assigned to other ports in the future. It is also your hope that other ports will follow, so that in two years all ports will be provided with a modern and efficient quarantine service.

In your desire to establish a system of port health work which will not continue obsolete practices and institutions, while at the same time playing as effective a part as possible in the prevention of epidemic diseases, you have expressed the wish to share fully in the study of port health procedure which the Health Organisation will carry out in connection with an interchange of port health officers in the Far East to be held in 1930. The study of Chinese ports mentioned above will constitute a necessary preliminary to the preparation of this interchange, for which the Ministry will nominate one or more Chinese medical officers assigned to port health work.

In addition, you have asked me, and I have agreed, to provide facilities for the training of two or three medical officers who will be appointed to important posts in the new port quarantine services.

In view of the fact that the shipping interests involved are of many nationalities, you considered that it would be advisable that there should be consultation and collaboration with the Transit Organisation of the League, as well as with the Health Organisation.

It is therefore your intention to request that the Health Committee of the League, in collaboration with its Transit Organisation, should draw up a complete scheme for consideration of the Ministry.

You have invited the collaboration of the Health Organisation of the League in the establishment of a national quarantine service, because you realised that through this Organisation it would secure the benefit of the expert knowledge and experience possessed by the health administrations of the leading maritime countries. In the Government's view, the collaboration of the Health and Transit Organisations of the League will be a source of strength, not only in the organisation, but also in the initial functioning of the new quarantine services, for it will ensure a friendly spirit of reciprocity and helpful mutual confidence, which will overcome the difficulties inherent in the launching of such a scheme.

#### CHOLERA AND SMALLPOX AT SHANGHAI.

13. The continued prevalence of cholera in Shanghai during the last 25 years (on 15 occasions in 25 years) is a serious preoccupation of the sanitary administrations of various countries, particularly since 1919, when cholera broke out in every year except 1924 and 1928 (six cases only reported from the International Settlement).

The area of Shanghai has also a worldwide reputation as a danger centre in regard to smallpox.

The Ministry of Health is anxious that energetic measures for the control of cholera and smallpox be taken next year throughout the area, and it desires to initiate a programme of definite collaboration in this respect between the Health Department of the Special Municipality of Shanghai and the Health Departments of the International Settlements.

The measures are to include preventive vaccinations on a very large scale, the control and supply of drinking-water, and an agreement regarding facilities for the isolation and treatment of



cases. The question of the water traffic and of the floating population in Soochow Creek and of the medical supervision of all incoming and coasting sea traffic by a port quarantine system is also to be considered, representing as it does a vital element of the problem.

We have ascertained that the health departments concerned are anxious in principle for such a collaboration. The question is forming the object of study by your officers and of conversations on our part, and I hope to communicate with you further in regard to the plan of emergency measures which you desired us to study. I am asking Mr. K. Stouman, the Chief Statistician of the Health Section, who is at present on special mission at the Singapore Bureau, to come to Shanghai and to study, in association with the Chinese and Foreign Health Services, the epidemiology of cholera and smallpox in recent years.

14. It may be convenient at this stage to restate the questions which the Government would propose may form the subject of collaboration with the League:

#### I. *The Quarantine Survey.*

(a) A general study by the Health Committee in conjunction with the Transit Organisation of the League.

(b) A detailed survey by a Health Section expert of all the ports at which the Ministry intends to take over the quarantine services during the next two years.

(c) The participation of Chinese officers in the study of the port health procedure in the Far East by a group of quarantine officers invited by the League, and under the leadership of an expert of the Health Section.

(d) The training by the Health Section in 1930, at appropriate quarantine stations, of two or three health officers selected for responsible posts in the new service.

(e) The presentation of the scheme to the Ministry in the course of 1930.

#### II. *The National Field Health Service (Central Field Station).*

(a) The preparation of a detailed plan of the new institution (with respect to its programme of work, organisation and functions).

(b) The co-ordination of its activities with those of the existing schools and institutions of public health here and abroad. (One method of utilising such co-ordination would be the consideration by the League's Commission on Education in Hygiene and Preventive Medicine of an annual report from the Institute.)

(c) Expert assistance in the direction of selected divisions of the institution for a stated period of time.

(d) The granting of special study scholarships to one or two officers, to whom responsible field studies will be entrusted in the application of the Ministry's fundamental projects.

#### III. *The New National Hospitals.*

(a) The supply of relevant information and technical assistance in planning the institutions.

(b) The granting of a study scholarship for the officer designated as Medical Superintendent of the First National Hospital.

#### IV. *The Demonstrations at the Educational Centres and in the Province of Chekiang.*

(a) The collaboration of technical Commissions of the Health Organisation in certain special activities by the supply of information, by aid in planning, and, eventually, by the delegation of expert members for a limited period of time (*e.g.*, malaria).

(b) The granting of special study fellowships to the Chekiang Provincial Health Officer and to the Special Commissioner of the Ministry in preparation of the scheme.

(c) The granting of a study fellowship to a senior officer selected for the demonstration at the educational centre.

(d) The studies abroad of educationists designated for health work.

#### V. *Medical Education.*

(a) Furnishing special memoranda on the progress of studies of the several National Commissions in medical reform.

(b) The delegation of an expert to participate for a limited period of time in the study of the Chinese Commission on Medical Education.

(c) The supply of special memoranda on post-graduate training and post-graduate colleges abroad.

(d) The studies abroad, under the auspices of the League of the officer selected to organise the Post-Graduate Medical College.

#### VI. *Epidemic Diseases Control.*

(a) The co-ordination of the joint effort for the control of cholera and smallpox in the Shanghai area.

(b) The facilities for training of selected technicians for the reorganised National Epidemic Diseases Prevention Bureau.

The collaboration projected on the above lines is in your belief to assist the Ministry in the building-up of fundamental national institutions and in organising areas of application at which

to train officers of the national field health service and of the future quarantine and epidemic prevention service.

You were good enough to suggest that I should visit China periodically, and recognising that, when accepted by the competent League authorities, this programme will entail a continuous effort on the part of the Health Section, you enquired if it would be possible to arrange for a prolonged stay in China, preferably at the central station of the national field health service, of one of our colleagues of the League's Health Organisation in a technical advisory capacity.

I feel sure that, if his functions be so clearly limited, the Health Committee will have no hesitation in recommending to the Council of the League of Nations the approval of such an arrangement, particularly as you have decided that your programme, as outlined above, is to be carried out slowly and methodically, stage by stage, so that your staff may concentrate its work on the development of one item before another is taken up.

Nor will the Health Committee feel any hesitancy, I am sure, in adopting a plan of collaboration which you have decided, after mature reflection, to limit to the few proposals mentioned above.

15. The Health Committee will discuss your proposals at a special session at the beginning of March 1930. I had the honour of extending to you an invitation to represent the Ministry on this occasion.

May I express the hope that, in the new Health Committee which will be appointed by the League's Council in May 1930, we may have your permanent participation?

I understand that the Government has appointed Dr. Wu Lien Teh, the Director and Chief Medical Officer of the Manchurian Plague Prevention Service, to be the permanent delegate to the Advisory Board of the Eastern Bureau of the League of Nations Health Organisation.

I hope also that Dr. F. C. Yen, the Dean of the Central University Medical College, may be associated with the studies of the Commission on Education in Hygiene and Preventive Medicine; Dr. Robert Lim, Professor of Physiology at the Peiping Union Medical College and President of the National Medical Association, with the work of the Health Committee on vitamins and cognate subjects; Dr. Tsu Min Yi, Member of the Central Executive Committee, with the studies on Physical Education, and Dr. Shisan C. Fang, former Director of the National Epidemic Diseases Prevention Bureau, with the work of the Commission on Social Medicine.

Finally, I am glad to inform you that the Secretary-General of the League of Nations has, on my recommendation, appointed Dr. Tsefang F. Huang as member of the Health Section of the Secretariat.

(Signed) L. RAJCHMAN.

## Annex 2.

### REQUIREMENTS LAID DOWN BY THE COUNCIL ON MEDICAL EDUCATION OF THE CHINA MEDICAL ASSOCIATION FOR REGISTRATION IN THE ASSOCIATION AS AN "APPROVED MEDICAL SCHOOL" IN CHINA.

EXTRACT FROM "CHRISTIAN HIGHER EDUCATION IN CHINA".

(A study for the year 1925-26, by Earl Herbert Cressy; Bulletin No. 20, 1928, published by China Christian Educational Association, Shanghai.)

#### 1. Entrance Standards:

Admission from a recognised middle school or its equivalent, followed by thorough instruction in the pre-medical sciences, either (1) as included in the minimum two years' pre-medical courses provided by approved arts colleges in China; or (2) as evidenced by examination (written and practical) covering, in general, the same ground.

Chemistry. — Four semesters' work (two academic years) in general inorganic chemistry, qualitative analysis, quantitative analysis and organic chemistry, of which not less than one-half should be devoted to individual laboratory work.

Physics. — At least three semesters' work (one academic year and a-half), of which not less than one-half should be devoted to individual laboratory work.

Biology. — At least three semesters' work (one academic year and a-half), of which not less than one-half should be devoted to individual laboratory work.

#### 2. Medical Course:

A five-years' course, of which the last year may be devoted to clinical or laboratory work; the four years to consist of four sessions of not less than 32 weeks each, in four calendar years, comprising a total of not less than 3,600 hours devoted to professional subjects, and divided into 1,800 hours devoted to pre-clinical subjects and 1,800 hours devoted to clinical subjects.

#### 3. Faculty:

(a) Anatomy, physiology, physiological chemistry, bacteriology, pathology, and pharmacology would be under the charge of instructors who have had specialised training and experience in these subjects, and, except in the case of pharmacology, to be under the charge of full-time teachers.

(b) A full-time Faculty of 15, where part-time expert service is not available or of 10, where such part-time expert service is available.

4. *Laboratory Facilities:*

Laboratories adequately equipped for the individual teaching of students in anatomy, histology, embryology, physiology, physiological chemistry, bacteriology, pathology, pharmacology and clinical diagnosis.

5. *Human Dissection:*

Each student to dissect at least half a human cadaver.

6. *Clinical Facilities:*

(a) Hospital, or hospitals, under the control of the school, with 150 beds and one or more daily dispensaries.

(b) Each student to be present at not less than six maternity cases.

(c) Each student to be present at not less than twelve autopsies.

7. *Other Teaching Facilities:*

(a) A working medical library containing modern text books and reference books and receiving, every year, at least twenty-five volumes of different medical periodicals published annually.

(b) A working medical museum, with anatomical, embryological, pathological and other specimens, duly prepared, labelled and indexed.

(c) Opportunities for experimental laboratory work.

(d) A sufficient supply of auxiliary apparatus such as manikins, stereopticon X-ray apparatus, etc.

Annex 3.

ITINERARY.

		1929			
Left Geneva . . . . .	October	2nd.	Shanghai . . . . .	November	25th.
Cherbourg . . . . .	"	4th.	Tientsin . . . . .	"	29th.
New York . . . . .	"	10th.	Peiping . . . . .	December	1st.
Vancouver . . . . .	"	16th.	Shanghai . . . . .	"	14th.
Yokohama . . . . .	"	28th.		1930	
Tokio . . . . .	"	28th.	Hong-Kong . . . . .	January	3rd.
Kyoto . . . . .	"	31st.	Singapore . . . . .	"	8th.
Moji . . . . .	November	7th.	Penang . . . . .	"	12th.
Nagasaki . . . . .	"	8th.	Colombo . . . . .	"	14th.
Shanghai . . . . .	"	9th.	Bombay . . . . .	"	17th.
Nanking . . . . .	"	12th.	Aden . . . . .	"	22nd.
Wusih . . . . .	"	14th.	Suez . . . . .	"	26th.
Shanghai . . . . .	"	14th.	Port Said . . . . .	"	27th.
Hangchow . . . . .	"	21st.	Marseilles . . . . .	"	31st.
West Lakes . . . . .	"	23rd.	Geneva . . . . .	"	31st.

DR. BOUDREAU'S ITINERARY NOVEMBER 27TH, 1929, TO JANUARY 4TH, 1930.

		1929			1929
Shanghai . . . . .	November	27th.	Peiping . . . . .	December	4th.
Tsingtao . . . . .	"	28th.	Shanghai . . . . .	"	14th.
Dairen . . . . .	"	29th.	Amoy . . . . .	"	29th.
Port Arthur . . . . .	"	30th.	Canton . . . . .	"	31st.
Mukden . . . . .	December	1st.			
Antung . . . . .	"	2nd.		1930	
Mukden . . . . .	"	3rd.	Hong-Kong . . . . .	January	2nd.

ERRATUM

C.118.M.38.1930.III  
(CH.842)

On page 5 under 2(b), second to last line, read "positions" for position.

On page 15, first line paragraph 6, read sixteen thousand for sixteen hundred.

On page 23, footnote, read "as" for "if" after birthrates.

On page 22, 3rd paragraph, under the Peiping Health Centre, add "divisions" after "three".

Page 42, the subtitle Acknowledgements should appear at the top of the page.

Geneva, March 24th, 1930.

LEAGUE OF NATIONS

HEALTH ORGANISATION

2

APPLICATION OF ARTICLES 8 AND 10  
OF THE INTERNATIONAL OPIUM CONVENTION

Signed at Geneva on February 19th, 1925.

I.

In accordance with the procedure laid down by Article 8 of the Geneva International Opium Convention, the Health Committee, after having taken the opinion of the Office international d'Hygiène publique and examined the lists submitted by the Governments of France, the German Reich, India, Roumania, Bulgaria, the Irish Free State, Poland and Great Britain, adopted, during its extraordinary session of March 1929, the following resolution:

"The Health Committee adopts all the conclusions of the Report of the Office international d'Hygiène publique, on the application of Article 8 of the Opium Convention signed at Geneva on February 19th, 1925, to the preparations proposed by the Governments of British India, Bulgaria, France, Germany, Great Britain, the Irish Free State, Poland and Roumania, as they appear in document C.H. 843."

APPLICATION OF ARTICLE 8 OF THE INTERNATIONAL OPIUM CONVENTION  
SIGNED AT GENEVA ON FEBRUARY 19th, 1925.

PREPARATIONS EXEMPTED FROM THE PROVISIONS OF THE GENEVA OPIUM CONVENTION  
BY APPLICATION OF ARTICLE 8 OF THAT CONVENTION AND BY DECISION OF THE HEALTH COMMITTEE  
OF MARCH 8th, 1930.

State	Preparation	Composition or Pharmacopœia
France:	<i>Emplastrum opii.</i>	Extract of opium . . . . . 25 gr. Refined elemi . . . . . 25 gr. Diachylon plaster with gum. 50 gr.
German Reich:	<i>Pulvis ipecacuanhæ opiatius (Pulvis Doveri P.I.)</i> and all other preparations of opium or drugs with a content of not less than 10 per cent of ipecacuanha root.	<i>Deutsches Arzneibuch, 6.</i>
India:	Dover's powder ( <i>Pulvis Ipecacuanhæ Compositus</i> , compound powder of ipecacuanha).	Ipecacuanha root, in powder. 10 gr. Opium, in powder. . . . . 10 gr. Potassium sulphate, in powder . . . . . 80 gr. British Pharmacopœia, 1914.
	<i>Unguentum Gallæ cum Opio</i> (gall and opium ointment).	Gall ointment. . . . . 92.5 gr. Opium, in powder. . . . . 7.5 gr. British Pharmacopœia, 1914.

State	Preparation	Composition or Pharmacopœia
Roumania:	<i>Pulvis Doveri (Pulvis Opii et Ipecacuanhæ Com.)</i> .	<i>Radix Ipeca. pulv.</i> . . . . . 1 gr. <i>Pulvis Opii</i> . . . . . 1 gr. <i>Sacchar. Lactis</i> . . . . . 8 gr.
Bulgaria:	<i>Pulvis Doveri</i> .	<i>Radix Ipecacuanhæ pulverata</i> . . . . . 1 gr. <i>Opium pulveratum (10% Morph.)</i> . . . . . 1 gr. <i>Kalium Sulphuricum pulveratum</i> . . . . . 8 gr.
Irish Free State:	<i>Pulvis Ipecacuanhæ Compositus</i> (compound powder of ipecacuanha, synonym: Dover's powder).	Ipecacuanha root, in powder . . . . . 10 gr. Opium, in powder . . . . . 10 gr. Potassium sulphate, in powder . . . . . 80 gr.
	<i>Pilula Ipecacuanhæ cum Scilla</i> (Pill of Ipecacuanha with Squill).	Compound powder of ipecacuanha . . . . . 50 gr. Squill, in powder . . . . . 10 gr. Ammoniacum, in powder . . . . . 10 gr. Syrup of glucose . . . . . a sufficient quantity.
	<i>Pulvis Kino Compositus</i> (compound powder of kino).	Kino, in powder . . . . . 75 gr. Opium, in powder . . . . . 5 gr. Cinnamon bark, in powder . . . . . 20 gr.
	<i>Unguentum Gallæ cum Opio</i> (gall and opium ointment).	Gall ointment . . . . . 92.5 gr. Opium, in powder . . . . . 7.5 gr.
	Poland:	<i>Emplastrum Opii</i> .
Great Britain:	Mixtures of Dover's powder with mercury and chalk, aspirin, phenacetin, quinine and its salts, and sodium bicarbonate.	
	<i>Linimentum opii</i> and <i>Linimentum opii ammon.</i> , if mixed with any other British Pharmacopœia or British Pharmaceutical Codex liniment.	British Pharmacopœia. British Pharmaceutical Codex.
	<i>Ung. Gallæ c. opio</i> .	British Pharmacopœia.
	<i>Ung. Gallæ Co.</i> and <i>Emp. opii</i> , if mixed with other ointments and plasters contained in the British Pharmacopœia or British Pharmaceutical Codex.	British Pharmaceutical Codex. British Pharmacopœia, 1898.

II.

In accordance with the procedure laid down by Article 10 of the Geneva International Opium Convention, the Health Committee, after having taken the opinion of the Office international d'Hygiène publique, adopted, at its extraordinary session of March 1930, the following resolution:

" The Health Committee,

" Considers that preparations which contain esters of morphine, di-hydro-oxycodone, di-hydro-codeinone (dicodide), di-hydro-morphinone (dilaudide) should be treated in the same manner as those which contain diacetylmorphine, that is to say, they should come within the scope of the Convention, whatever the percentage of narcotic substances contained may be.

" It also considers that all salts of these substances should come within the scope of the Convention according to the provisions of Article 10 of the said Convention."

[Distributed to the Council and  
the Members of the League.]

Official No.: **C. 190. M. 90.** 1930. III.

Geneva, May 1930.

LEAGUE OF NATIONS

**HEALTH COMMITTEE**

**MINUTES**

OF THE

**FIFTEENTH SESSION**

Held at Geneva from March 5th to 8th, 1930.

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Series of League of Nations Publications

III. HEALTH

1930. III. 5.

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LIST OF MEMBERS.

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The following members were present at the session :

Dr. Th. MADSEN, Director of the State Serum Institute, Copenhagen, *President*.

M. O. VELGHE, President of the Comité permanent de l'Office international d'Hygiène publique, Paris ; former Secretary-General of the Ministry of the Interior and of Health, Brussels, *Vice-President (ex-officio)*.

Dr. Witold CHODZKO, former Polish Minister of Health ; Director of the State School of Hygiene, Warsaw, *Vice-President*.

Professor Ricardo JORGE, Technical President of the Public Health Council, Lisbon, *Vice-President*.

Professor LÉON BERNARD, Professor of Tuberculosis at the Faculty of Medicine, Paris ; President of the Conseil supérieur d'hygiène at the French Ministry of Health, Paris.

Sir George BUCHANAN, Senior Medical Officer, Ministry of Health, London.

Professor J. CANTACUZÈNE, Professor of Bacteriology and Director of the Institute of Experimental Medicine, Bucharest.

Dr. H. CARRIÈRE, Director of the Swiss Federal Public Health Service, Berne (attended the meetings from March 7th).

Dr. C. HAMEL, President of the Reichsgesundheitsamt, Berlin.

Dr. N. M. J. JITTA, President of the Public Health Council of the Netherlands, The Hague.

Dr. A. LUTRARIO, former Director-General of Public Health, Rome.

Professor B. NOCHT, Rector of the University and Director of the Institute of Tropical Diseases, Hamburg.

Professor D. OTTOLENGHI, Professor of Hygiene at the Royal University of Bologna.

Professor G. PITTALUGA, Professor of Parasitology, Faculty of Medicine, Madrid University.

Dr. L. RAJCHMAN, Medical Director, Secretary of the Committee.

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At the request of Doctor TSURUMI, who was detained, Professor M. MIYAJIMA, Member of the Kitasato Institute, Tokio, Professor of the Faculty of Medicine, Keio University, Tokio, attended the session.

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The following members were absent :

Surgeon-General H. S. CUMMING, Chief of the United States Public Health Service, Washington (D.C.).

Dr. M. TSURUMI, Representative of the Public Health Service of Japan at the Japanese Embassy, Paris.

Dr. C. F. A. WINSLOW, Professor of Public Health, Yale School of Medicine ; Member of the Public Health Council, State of Connecticut.

Professor G. Araoz ALFARO, former President of the National Health Department, Buenos Aires.

Professor Carlos CHAGAS, Director of the Oswaldo Cruz Institute, Rio de Janeiro.

General J. D. GRAHAM, Public Health Commissioner with the Government of India, Delhi.

Dr. Alice HAMILTON, Professor of Industrial Hygiene at Harvard University, Boston (Mass.).

Professor NAGAYO, Director, Government Institute for Infectious Diseases, Tokio.

Dr. L. RAYNAUD, Inspector-General of the Health Services, Algiers.

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The following also attended :

His Excellency Dr. WOO KAISENG, Director of the Permanent Office of the Chinese Delegation to the League of Nations, former Legal Adviser to the Ministry for Foreign Affairs, *represented his Government during the discussions on the co-operation of the National Government of the Republic of China with the League of Nations on health matters. He was accompanied by Dr. Ludwig CHICHUNG YEN, Director of Medical Administration, Bureau of the Ministry of Public Health, Nanking.*

Professor J. B. GRANT, Peking Union Medical College, Peiping.

Dr. Norman WHITE, Director of the School of Hygiene, Athens.

Mr. Edgar SYDENSTRICKER, Director of Research, Milbank Memorial Fund, New York.

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## FIRST MEETING

*Held on Wednesday, March 5th, 1930, at 4.30 p.m.*

*President: Dr. Th. MADSEN.*

### 437. Opening of the Session.

The President declared open the fifteenth session of the Health Committee. He expressed regret at the absence of several members of the Committee, namely: Professor Araoz Alfaro, Dr. Carrière, Professor Chagas, Surgeon-General H. S. Cumming, Dr. Cumpston, General J. D. Graham, Professor Alice Hamilton, Professor Nagayo, Dr. Raynaud, and Dr. Tsurumi.

Dr. Abt, Director of the Office international d'Hygiène publique, also apologised for his absence.

The President was glad, however, to welcome on behalf of the Committee: His Excellency Dr. Woo Kaiseng, Director of the Permanent Office of the Chinese Delegation to the League of Nations, who was representing the Chinese Government, and Dr. L. C. Yen, Director of Medical Administration Bureau of the Ministry of Public Health at Nanking, who was accompanying Dr. Woo Kaiseng. He welcomed also Dr. Norman White, Professor Miyajima, Professor Sydenstricker and Professor J. B. Grant.

### 438. Adoption of the Agenda of the Session.

The PRESIDENT observed that the principal question on the agenda was the report by the Medical Director on his study tour in China, on which he had been accompanied by Dr. Boudreau. This was the first question which the Committee would examine. The other items consisted rather of a progress report concerning the work of the Section and would be examined later. Questions concerned with the work of the Opium Commission would be postponed until Dr. Carrière arrived on March 7th.

Everyone who had read the Medical Director's report would certainly have been impressed by the fact that it had been possible in so short a visit to collect, in connection with the great problem of the health organisation of China, so complete a body of information, which made it possible to trace the main outlines of the programme of work. The President wished, on behalf of the Committee, sincerely to congratulate Dr. Rajchman and Dr. Boudreau on the way in which they had carried out their mission. It would, he thought, be the starting-point of a task which would be of equal value to the Health Organisation and to the great Chinese Republic.

Dr. RAJCHMAN proposed that the Committee should adopt the following programme of work: Thursday, morning meeting, discussion of the report on the mission to China and the examination of special questions, such as the request of the Bulgarian Government concerning the campaign against endemic syphilis in certain parts of Bulgaria, the programme of interchanges for 1930, etc; Friday, examination of questions affecting the Opium Commission and miscellaneous questions.

An afternoon meeting might be devoted to the examination, by a Sub-Committee, of the scheme for the reorganisation of the Quarantine Services in China. He further suggested that one or two afternoons might be reserved for certain statements—in particular, that of Dr. Norman White on the Athens centre, that of Dr. Ciuca on malaria in India, that of Dr. Mackenzie on Bulgaria, and that of Dr. Sydenstricker on the programme of studies relating to morbidity carried out in the United States under his direction during the past few years. The Medical Director hoped that it might be possible to finish the session on Saturday.

*The Committee adopted the Agenda (Annex 1) and the proposed programme of work.*

### 439. Absence of Dr. J. Heng Liu from the Session.

The PRESIDENT read a telegram from Dr. Heng Liu, Chinese Minister for Health, regretting that he was unable to attend the Committee's session, as he had hoped to do.

### 440. Collaboration between the League of Nations and the Chinese Government as regards Health Matters: Statement by the Medical Director regarding the Mission to China.

Dr. RAJCHMAN regretted that it had been impossible to give in the report as exact an idea of the Chinese problem as the authors would have liked. The reason was that the visit which Dr. Boudreau and himself had made to China had lasted only two months. They had visited the various districts indicated by the Minister for Health as being the most characteristic and the most suitable for collecting the data required for forming a judgment of the Chinese Government's proposals. A two months' tour in China was quite inadequate to give an exact idea of the immensity of the undertaking. He must therefore excuse himself in advance for the imperfections in the account.

As the report had been distributed, he would confine himself to giving a few general indications with the object of facilitating the discussion.

The question which had been posed when Dr. Rajchman and Dr. Boudreau had gone to China was as follows: How far could the collaboration which the League was able to offer the Chinese Government at the present time effect any appreciable improvement in the health situation of China? That was a question which concerned the Chinese Government, the Council of the League and the Health Committee simultaneously.

After a few weeks it had been possible both for the Minister for Health and likewise for Dr. Rajchman and Dr. Boudreau to give a reply to this question. It was obvious that the co-operation of the League with China, however efficacious, would not bring about any appreciable improvement in the health situation of China within a period which could be measured at the present moment. That reply was absolutely definite. It might appear pessimistic, but it constituted the only sound basis of fruitful co-operation between the Health Committee and the Chinese Government.

It must be remembered that the health situation of a country depended to a large extent on its economic development, its financial position and its political stability. Even the most energetic of health administrations would probably find itself quite unable to do effective work, unless certain conditions were fulfilled. The deduction, therefore, was that the health reorganisation of China must be achieved concomitantly with the economic revival of the country. This fact must be borne in mind in contemplating the problem. It was for that reason that, in the opinion of the Nanking Government, the health question was viewed in the first place in the light of the general reconstruction of the country. That was the reason for the request made by the Chinese Government to the League and for the financial sacrifices which it had incurred, and which had been shouldered in the firm conviction, shared by all responsible members of the present Government, that this should be one of the first steps on the modernisation of China.

If it could not be hoped that the health reorganisation of China could be effected within a brief period of time, there was, nevertheless, reason to hope that important and fruitful results might be obtained fairly quickly. The letter from the Minister for Health contained a clear indication on this point. It brought out the possibility of achieving within a relatively short time reforms which would be valuable both to China and other countries.

The general conditions in the country had been summarised in the report, and the Medical Director would confine himself to adding a few observations.

It must be remembered that China was less an ordinary country than a continent, and that the differences between the provinces in the Empire were as great as those which might exist between two far-distant countries in Europe. In considering the problem of the reorganisation of China, it was, therefore, impossible to speak of the country but only of certain parts of the country.

China, which was a vast country, had a huge population, but the population was concentrated on the seaboard. For this reason, China might be regarded as a country in which certain provinces had a preponderating influence on the development of the nation as a whole, and what could be achieved in a relatively small district would have a direct effect, since it was precisely this part of the country which was of most account. The figures for the population given in the report were those obtained from the 1910 census. Even on the seaboard, where the population was concentrated, there were noteworthy differences between the various districts.

In order to facilitate the comprehension of the report, the Medical Director would venture to make certain observations on the system of government in China, and first to give a reply to a fundamental question. He had been asked with which Chinese Government he had dealt. The reply to this question was simple. He had dealt with the Chinese Government, for there was only one central Government in China, the Government at Nanking.

Moreover, although China was a country where alarmist rumours had a wide circulation and obtained a very large measure of credence, and where false reports and the most extreme criticism of the Government's action was spread abroad without the Government being able to take effective action, it was none the less true that when the mission was in China the Nanking Government was recognised as the only true Government of the Chinese Republic.

With regard to administrative and governmental functions in China, Dr. Rajchman explained that the Republican organisation which had been in existence for some twenty years could not be compared with the political organisation of a centralised country. On the contrary, the Government was very decentralised in form from the administrative point of view, except as regarded the effective exercise of functions of national importance. When, for instance, the Central Government negotiated with foreign Powers, it was invariably regarded as the Chinese National Government by all the provinces, even by those parties which might be opposed to it or possibly even in open rebellion against it. In the settlement of any question concerning communications, it was the natural thing in all parts of China to fall in with the directions of the National Government. Finally, the Nanking Government had control over the Customs administration and, to a great extent, over the yield of taxation. In this matter the authority of the Government was steadily growing, the methods of tax collection, however, differed appreciably from those used in modern countries.

It was, however, in the technical domain that the Government's authority was most definitely growing. No province would think of opening a secondary school or technical college without first obtaining the permission and directions of the Central Government; that was to say, the Minister for Education. In health matters, also, the directions and advice of the Ministers were followed, and the Government was even expected to take the initiative itself.

Were the Government, however, to insist too much on the adoption of certain administrative regulations, it might meet with a reverse. The provinces enjoyed a large measure

of autonomy, subject to the effective control of the Governor, who was the President of a more or less active Provincial Council. In the big communities, the municipalities and the mayors exercised complete control over the entire business of the municipality.

For the transaction, however, of much public business, the provincial administration required the seal of the central administration, and there were well-established administrative traditions in this matter. The Imperial seal was now in the possession of the Nanking Government, and administrative tradition demanded that application should be made to Nanking for all business requiring the fixing of the seal. This explained in part the military and political attacks made on Nanking.

The Central Government was a somewhat complicated organisation. In China, there were not three powers as in European countries, the legislative, the executive and the judicial, but five powers, the three first being completed by the examining power and the supervisory power. There were, therefore, five Yuans or Councils—the Legislative, the Executive, the Judicial, the Examining and the Supervisory. The administrative power of the country was in the hands of the Executive Yuan, and the Ministries were subordinate to it, constituting Departments of State. There was also a Grand Council of State, the members of which were nominated by the Central Executive Committee, and included, amongst others, the Chief of the Government, the Presidents of the five Yuans and the Ministers, etc. The Ministers, together with a certain number of other dignitaries, were members of the Executive Council or Yuan, but the Ministers were in the majority. Dr. Rajchman hoped that this very general survey would indicate the position of the Ministry for Health in the Chinese governmental machine.

The Central Executive Committee, which was elected by the Party Congress, constituted the supreme organ in the country. The delegates to the Congress were elected by the local party committees. The Central Executive Committee met from time to time in plenary session. In the event of a divergence of opinion, the first body to take a decision was the plenary session of the Executive Committee.

In explaining the methods of working of the Chinese political organisation, the Medical Director recalled that, until 1911, the entire power had been concentrated in the hands of the Emperor. China, therefore, had only been a republican organisation for nineteen years. The first period of parliamentary Government had not given conclusive results, since an attempt had been made to apply to an unprepared country a system which in other countries was the result of long traditions.

Power having passed from the hands of the Emperor into those of an impotent Parliament, the Generals had, in the past, overturned the civil Governments with the object of seizing power for themselves. The Generals had belonged to two categories—those who, being Governors of provinces, had at their disposal the provincial army, and the professional Generals, who commanded an army generally recruited from the unemployed.

Previously to 1911, the southern Chinese provinces had already undertaken the work of modernisation. Kwantung, with the provincial capital of Canton, being separated from the interior of the country by a range of mountains, occupied a somewhat isolated situation. This explained to a certain extent the fact that this province had become the centre of a vast movement of political and intellectual emancipation, based on modern traditions and on a different attitude towards the foreigner. It was there that Dr. Sun Yat Sen had formed the party which was now the only true symbol of popular government in China, the party of the Chinese regeneration, which had conquered the minds of the Chinese people and acquired a very real political authority. In 1927, after a prolonged struggle, the success of the National Party had been confirmed. It now constituted the only modern political authority in the country. From the time of the establishment of the National Government at Nanking, the process of modernisation in China had made greater progress, for it was only since 1927 that China had really possessed a modern Government, the majority of the members of which had received a Western training. It had begun by setting up Ministries in accordance with modern ideas and had attracted to it the officials who were anxious to work for the reorganisation of the country.

Leaving on one side all subjects not coming within the domain of health, Dr. Rajchman wished merely to explain the difficulties confronting the Minister for Health. A glance at the most populous part of China, which was at the same time the most modern, showed the existence of very large cities. Shanghai, for instance, had 1,700,000 inhabitants, the British Concession 800,000—30,000 of whom were foreigners, mostly Japanese—and the French Concession 350,000, of whom 10,000 were foreigners, mostly Russians. The total population of Shanghai amounted, therefore, to roughly 3,000,000. Nanking had half a million inhabitants, Tientsin had 1,000,000, Peking 800,000 and so forth. Practically everywhere, therefore, there were immense cities, and this afforded some idea of the problems confronting the municipal administration in the work of modernisation that had begun some ten years previously, and likewise of the enormous financial and technical effort that was required.

The reorganisation programme was popular and was already on the way to achievement. Anyone returning to China after four or five years was struck by the progress accomplished in the modernisation of the cities, both from the material and from the psychological points of view. The municipal offices contained a young and well-trained technical staff, who were well aware of what had to be done. The problems to be solved were nevertheless immense. At Shanghai, for instance, there was the problem of the drinking-water supply. A solution for such questions could not be found overnight. Moreover, at the present moment, China did not find credits easily. Although there was no dearth of money in the country, the Government and municipal securities were not in great demand. The impression created, therefore,

was that the Chinese knew what required to be done but had not the means to execute the plans conceived.

The urban communities were somewhat peculiar in character. They were not really urban, except in certain parts, the remainder consisting of a collection of rural communities. He might cite as an example a health centre which had been set up thirty kilometres from the International Concession at Shanghai by the Minister for Health, who, to visit it, had had to use the most primitive means of locomotion, namely, a wheel-barrow, as motor-cars and carriages could not reach it.

The question of communications was, therefore, of somewhat particular urgency in China. It had, however, made extraordinary progress in the last few years. In 1921, China had had only 150 kilometres of motor roads, and in 1929 the figure had risen to 4,760 kilometres of modern roads. The progress achieved in the building of railways was as great, as was shown in the American Review, which the Health Section had distributed to members of the Committee. Communications being the fundamental condition for the health organisation of a country, it would be realised that China was confronted with difficulties unknown elsewhere, financial difficulties on the one hand and difficulties in regard to communications on the other.

The considerations resulting from the economic position differed according to the province. It was for that reason that the Minister for Health had selected a certain number of provinces which might be used as a basis for the data to be collected by the Health Committee's mission. One of these provinces, Chekiang, was fairly densely populated; it had a population of 25 millions, and resembled Japan, to a certain extent, from the agricultural point of view. It was a prosperous province, but 900 kilometres away there were districts where terrible famines occurred and where the agricultural colonists lived under very difficult conditions. It could not, therefore, be said that the same solution of the health problem would be practicable in two provinces which were separated by a distance less than that of Geneva from Berlin. There was a whole world between them.

The primary condition for a health reform was that it must be carried out among an educated population. China, from the point of view of education, presented a peculiar problem. It was extremely difficult to define the illiterate. A Chinaman was considered to be educated if he knew some 5,000 characters, what number of characters must he know to be no longer illiterate? The Chinese people had an old tradition that children must receive the best possible education. This did not, of course, in any way imply a modern education, and the differences between the kinds of education given were very considerable. But to take the most highly developed provinces; in Chekiang there were 16,000 elementary schools, attended by 600,000 children. The capital of the province had a technical college with 1,000 students, an agricultural college with 500 students and a special school of administration. In the province of Kiang-Su, also, 600,000 children were attending the elementary schools. The total number of children and young people attending elementary, secondary and special schools and the universities was about 20 millions, a rather small proportion if compared with the aggregate population of 400 millions, since it was only 5 per cent, whereas in Japan it was 15 per cent and in America 25 per cent. Emphasis, however, must be laid on this figure of 20 millions in order to bring out the responsibility incumbent on the various Government services, which were responsible for providing for the spiritual and material needs of this enormous school and university population.

Among the other difficulties confronting the Minister for Health was the more specifically medical problem. This was the hardest task of all.

Medicine as conceived on modern lines was an absolutely new thing in China. The first hospital was hardly eighty years old and modern medical institutions were almost unknown. Western medicine had been introduced by foreigners and more particularly by missionaries, who had used it in order to prove the benefits of Christian civilisation. Medicine being conceived as a means of evangelisation, those practising it in China were not always people who possessed adequate medical knowledge, but rather people who were inspired by a missionary enthusiasm. This fact was proved by the results. There were about 600 hospitals in China, the majority of them quite small institutions of a medical standard which had now disappeared in Europe and America. There were, however, in the big centres certain magnificent institutions which had been organised by foreigners; some of them were quite remarkable.

What was the situation of the Ministry for Health in regard to the medical problem? The Minister for Health at Nanking fully realised the necessity of making provision for the medical treatment of the people, and he was doing all he could to promote the creation of medical centres. Such an organisation, however, required not only medical knowledge but administrative experience. The main feature of the present period, however, was that in these medical centres the administrative and financial responsibility was in the hands of foreigners and that hitherto it had been difficult to set up any national Chinese health institutions. The first object of the Central Sanitary Organisation was to meet this need.

What was the medical personnel at the disposal of the Government? China was, from this point of view, in a situation which was unknown in the rest of the world. For 400 million inhabitants she possessed no more than four thousand doctors who had received a Western medical training, and among them not more than one thousand had received training which was in any way comparable to the average training given to doctors in other parts of the world.

These doctors were concentrated in the major collectivities, without taking into account the fact that the 500 or 600 medical institutions which existed absorbed a fairly large number of them. There was, therefore, no medical personnel for the rest of the country, and it might be said that the question of Western medicine in China presented itself at the present time as a problem which awaited a solution in its entirety. Doctors with an adequate training were

much sought after, and it would be easily understood that they were not greatly attracted by the public service. Only 80 or 100 were engaged in public health work. That number would be small for a single large city. This team might, however, form the basis of a central service.

The methods of recruiting doctors in China were very inadequate; the report showed the wretchedly small number of medical schools, more especially since the majority of the provincial schools had had to be closed. The great difficulty was to find a teaching medical staff.

An additional difficulty was due to the lack of uniformity in the language in which teaching was given. Doctors who came from abroad continued to use the language of the country where they had studied. The medical world was therefore divided according to the countries from which the doctors came—Japan, England, France or Germany. An attempt had been made to unite the profession, and the Shanghai Congress in February had endeavoured to found a National Chinese Medical Association. In certain Government schools teaching was given in English or German. The result was that the recruiting of students was hampered by an artificial discrimination. There was, furthermore, the question of their actual ability to understand the teaching. The medical profession, therefore, in China was small; the greater number of the doctors had not been able to obtain adequate training and were, moreover, much divided.

The Health Organisation had, however, made a very encouraging beginning, and Dr. Rajchman wished to pay a tribute to a great leader of medical influence in China, Professor Grant, who had become chief of a genuine school of hygiene.

There were in China a number of health institutions which were full of promise; they had been mentioned in the report. Attention should be drawn, in particular, to the health service of the city of Shanghai, which was directed with special competence by an energetic officer, who, notwithstanding the changes of Government, had made considerable progress.

There were, accordingly, very few health organisations; but they offered an encouraging beginning which might serve as an indication for the efforts to be made in the future. After examining the situation, the Minister for Health had concluded that it was difficult to secure the adoption by his department of a programme similar to that of an ordinary Ministry for Health, and had decided to concentrate his entire efforts on a few fundamental problems in a certain number of provinces only.

Applications for administrative personnel were already coming in and it was impossible to comply with even those which were most justified. The question had therefore been raised whether the health service should be organised according to provinces. The provinces, however, enjoyed juridically and in practice a measure of semi-autonomy, and, in any case, there was always the financial difficulty. It had therefore been decided to leave the provinces for the time being to their fate and to concentrate all efforts on clearing the ground; that was to say, on the training of a consultative field service to be placed at the disposal of the provincial and municipal authorities. It was with this object that it had been proposed to set up a central health station and to endeavour first of all to solve the elementary problems—sanitary engineering, health returns, housing, epidemiology, etc.—and at the same time the problem of the training of the higher and auxiliary personnel.

It had also been decided to found a big national hospital which would become a training school for hospital superintendents and serve as a basis for graduate courses for doctors already in office and, at the same time, as a place of demonstration for the municipal authorities. For this reason it had been decided, as a first measure, to set up at Nanking the first national hospital under the authority of the Government. The problems studied at the central station would be those which were of particular concern to certain provinces, and it was for this reason that a start had been made by selecting certain provinces. The object of these studies would be to assist and serve as a guide to the provincial authorities in applying on a large scale the measures for the improvement of public health, while making use of the limited personnel placed at their disposal. With this object in view, the Ministry had chosen the province of Chekiang; it was both prosperous and had a high level of education, was near to Shanghai and had a liberal government, which had drawn up a remarkable health programme, including the foundation of a provincial hospital which was to become the basis for the health organisation of the entire province, and the creation of municipal laboratories, schools of midwifery, sanitary inspectors, etc. It was with great satisfaction that Dr. Rajchman welcomed at the meeting Dr. Chien, who was to take over the effective management of the provincial organisation and who had been invited by the Health Section to carry out certain studies abroad.

The work of the centre would gradually be extended also to Nanking, Shanghai, Canton and Peiping.

It had been decided next to take up the problem of medical education. The solution of this problem concerned two Ministries, those for Health and Education. A national Commission for the teaching of medicine had been set up and was to draw up a teaching programme for the national medical schools. The methods of collaboration with this Commission were explained in detail in the report.

It must be remembered that the object of the mission to China had been to study with the Chinese Government the best methods of securing the co-operation of the League in the improvement of the organisation of the quarantine service in China. The Ministry for Health was given the technical responsibility for the quarantine service. It had applied to the League in order to obtain competent advice on the measures to be taken with a view to the modernisation of that service.

The problem as it presented itself had been explained in the report. The service was carried on by the Ministry for Finance through the administration of the Chinese Customs,

which itself was under foreign management. That was one of the reasons for the growth of the legend that the Chinese quarantine service was in the hands of foreigners. Such a statement was incorrect, since the responsibility for the service belonged to the Ministry for Finance, which was a Department of State and was managed by the executive agent of the Department, namely, the Customs service.

It must be admitted that the Customs service had not accepted the management of the quarantine service with any enthusiasm. The Customs commissioners showed the greatest devotion in carrying out their duties as Customs officers, but they had no special knowledge of quarantine matters. They accordingly had recourse to doctors who in many ports were foreigners, but the effective operations in all ports, with very few exceptions, were in the hands of Chinese doctors. Quarantine operations were at the present time far from satisfactory. The Government realised the fact, and had decided to remedy it. It was for that reason that, following the constitution of the Ministry for Health, it had entrusted to it the task of reorganising the quarantine service—a very considerable task, moreover, since it involved difficulties with regard to both equipment and staff.

At Nanking it was fully realised that, when taking over the responsibility for the service, the Health Ministry would have to endeavour to modernise it, since it was important to acquire the confidence of the maritime countries which had commercial relations with China. It was for that reason that the Nanking Government had decided to apply to the League. It also realised that it was impossible to provide all ports with modern services, and had accordingly determined to modernise them one by one, beginning with the port of Shanghai.

In order to obtain the best possible technical advice, the Chinese Government had applied to the Health Committee, and, in order to secure the advice of qualified authorities on maritime questions, had also applied to the Communications and Transit Organisation of the League. It had further requested that it might benefit from any studies carried out in the Far East under the study tour system. It had finally requested that the investigations might be concluded by the end of 1930, so as to enable it to draw up a detailed plan of the changes to be made in the ports.

If, however, the Nanking Government had applied for the co-operation of the League and, in particular, of the Health Committee in drawing up its plans of modernisation, it must not be forgotten that the co-operation for which it was asking would not be temporary, but would, on the contrary, be continuous, since the League was asked to co-operate, not only in the establishment of a plan of sanitary reorganisation in China, but to assist in the application of the plan. The Chinese Government had applied for the Health Committee's co-operation, in the first place, for studying the question of the establishment of a central health station, a national hospital at Nanking and a provincial hospital at Hangchow; and, secondly, to assist it in organising these institutions by means of the system of League interchanges and fellowships, which would be of advantage to the managing personnel. It had further asked for the Committee's help in the solution of certain special problems by the despatch of experts belonging to specialist commissions, such as the Malaria Commission, the Commission on Education and on Medicine, etc. Finally, the Government had asked for the despatch of an expert from the Health Organisation to the central station at Nanking, to assist in the establishment and development of the station, as an advisory consultant who would place at the disposal of the Government the experience which had been acquired by similar institutions in Europe and America.

The Chinese Government realised the complexity of the task involved in the reform of the teaching of medicine, and had asked that an expert might be sent to China to collaborate with the National Commission, and that special notes on the development and practice of the teaching of medicine in all parts of the world might be placed at its disposal.

There was one question which, apart from its considerable local importance, was of fundamental national importance. That was the problem of the endemicity of cholera and smallpox in Shanghai. For a quarter of a century cholera and smallpox had been observed to make regular appearances in Shanghai, and everyone was aware of the precautions which the Japanese Government was obliged to take to safeguard its ports against cholera from Shanghai, and the enormous expenditure incurred by reason of this fact in the neighbouring countries and in Japan.

The Central Government had drawn attention in this connection to a somewhat delicate point. Certain measures would have to be adopted in common agreement by the Chinese authorities and the authorities of the International Concessions. It was for that reason that it had applied to the League mission to take part in the Conference which had been arranged between the three authorities—that was to say, the British, Chinese and French authorities—with a view to establishing a common programme. The Conference, which had met under the presidency of the Minister for Health, had adopted a programme of measures to be taken in regard to vaccination, etc. It had, furthermore, asked that it might have the services of the Singapore Bureau, and had applied to Mr. Stouman, who was then passing through China, for assistance in drawing up plans of joint epidemiological studies.

Although it was confining its attention to certain fundamental problems in certain provinces, the Ministry for Health was aware of its responsibilities from a national point of view, and realised its duty to prepare for the day when China resumed her normal economic development, and would thus be able to pursue concomitantly a policy of general reconstruction.

It must not be forgotten that China possessed extraordinary powers of recuperation. She was at the moment passing through a period of economic depression, but was capable of an extremely rapid economic recovery. The Health Ministry might then be required to meet demands from all sides. It was for that reason that it had decided to consider to what points its efforts could be most effectively directed.



It held the view, in particular, that its activities in the matter of hygiene could not be isolated, but that it was essential for them to be linked up to another form of public activity. This phenomenon existed in all countries; the exceptional health development in England was due to the fact that the health work in that country had been linked up with the development of local municipal governments. In Germany and in Denmark it had been bound up with other developments. The Chinese Ministry for Health had considered which was the living force in the country to which it could link up the development of health work, and its choice seemed to be directed towards the great movement in favour of education, in the largest sense of the word, now manifest in China.

This movement, to which the mission had referred in its report, was a very remarkable one. Notwithstanding all the political and military events which had taken place, a systematic, regular and progressive development was taking place, directed by an army which was increased each year by all the recruits from the Chinese universities, and the ramifications of which were extending to all branches of education. Its creed was the intellectual regeneration of China, and it might be regarded as the surest ally of the Ministry for Health. The sanitary development of the country being bound up with the movement for education, the Minister had thought that, if this movement failed, it would involve with it the failure of the plan for health reorganisation. The movement was, however, as everyone knew, a vigorous one, for it had succeeded in victoriously emerging from the numerous difficulties in which it had been involved and adapting itself to the needs of the present time. The medical and social progress of the country had, therefore, been rightly linked up with this movement.

The problem confronting the Nanking hygienists was at once very attractive and very difficult. If, as the Medical Director hoped, the recommendation which he had made for the adoption in their entirety of the Chinese Government's proposals was accepted by the Committee, the latter would thereby be assuming a responsibility, since, for many years to come, it would have to make arrangements for the co-operation to which it would be committing itself. It must not be forgotten that the Health Committee had other tasks in hand, and the question of the health reorganisation of China would occupy a considerable portion of the Health Organisation's activity. Dr. Rajchman, nevertheless, thought that this was the line along which the Health Organisation could, in future, make the best progress. In the two months which they had passed in China, Dr. Boudreau and he had had an opportunity of observing certain facts which had made it possible for them to indicate the first elements required for understanding the problem. The Chinese Government's request was the most important proposal for co-operation which had ever been received by the Health Organisation, and it must not be forgotten that this co-operation might be the beginning of the development of co-operation with China in other technical domains besides that of health.

The PRESIDENT thanked the Medical Director for the remarkable report which he had submitted on the mission to China and for his supplementary explanations.

Dr. WOO KAISENG, speaking on behalf of his Government, wished to thank Dr. Rajchman and his assistants. He thanked Dr. Rajchman not only for the very friendly words which he had just spoken, but more especially for the marvellous results of the mission to China, results which were due to his exceptional competence and his international method of thought. The results obtained—that was to say, the possibilities of co-operation between the League and China in the sanitary reorganisation of China—had enabled the Chinese Government to appreciate the advantages of the international technical organisations and, in particular, the spirit of mutual assistance which animated the League as a whole. It might henceforward be expected that, when China was confronted with difficulties in the task of reorganisation, it would not fail to have recourse to the knowledge of the League organs. China, in return, would give the League ever more vigorous co-operation and ever more effective support. Finally, not only the Government, but the people of China as well would be able to recognise the usefulness of the League and to help in its development to the fullest extent.

Ever since the establishment of the National Government, China had set before itself the task of undertaking complete national reconstruction in accordance with the policies laid down by Dr. Sun Yat Sen, who was the father of the Chinese revolution. The reorganisation of public health was one of the most important and arduous tasks in the general plan of reconstruction. In this work the Chinese Government was meeting with many obstacles and had come to the conclusion that the work of reorganisation would be facilitated by international co-operation.

At the end of 1928, the Ministry for Health had decided to appeal to the experience of the Health Organisation of the League. In the following year, the Nanking Government had made an official application for the despatch of a mission by the Health Organisation to China to undertake an enquiry into health conditions in the ports and into the question of maritime quarantine. It was as a result of this application that, after the Council had declared that the fullest measure of assistance should be given to China, a mission was despatched with Dr. Rajchman as its head.

On the arrival of the mission in Shanghai, the importance of its task had been enhanced still further by a request from the Chinese Government. The mission was asked not only to undertake an enquiry into health conditions in the ports and into maritime quarantine, but also to make investigations into the organisation and working of the medical and health institutions in various selected municipalities and administrative areas. Thanks to the information obtained by the mission and to its own competence, a plan of organisation had been drawn up and adopted by the Government and a vote of a million dollars had been passed by the Executive Council. Two hundred thousand dollars had already been paid by the Ministry for Finance to the Ministry for Health for the accomplishment of this plan.

The plan included co-operation with the League in relation to health matters. These proposals were set forth in detail in document C.118.M.38.1930.III. Dr. Woo Kaiseng hoped that the Committee would study them sympathetically. He wished, finally, to express the regrets of the Minister for Health that he had been unable to attend the meetings, as he had desired to do. His presence was required in China by the first work for the accomplishment of the plan of sanitary reorganisation.

The PRESIDENT, on behalf of the Committee, thanked Dr. Woo Kaiseng for his communication.

Dr. RAJCHMAN also wished to thank Dr. Woo Kaiseng for his kind words concerning the mission, which had touched him very deeply.

Referring to the conversations which he had had with the Minister for Health, Dr. Rajchman observed that he had taken the opportunity to state that the Committee would gladly welcome among its collaborators masters of Chinese medicine. A certain number of distinguished doctors had been designated as a result of this correspondence and Dr. Rajchman had no doubt that the Committee would endorse the arrangements which had been made.

He was also happy to be able to say that the Secretary-General had appointed one of the officials in the Nanking Ministry to become a member of the Health Section of the League.

The Medical Director drew special attention to Dr. Woo Kaiseng's information regarding the allocation of a vote of a million Chinese dollars granted by the Executive Council for the application of the programme of reorganisation and co-operation adopted by the Government on the proposal of the Ministry for Health. In addition, a special vote had also been passed for the first National Hospital, which would shortly start work.

He regretted that it had been impossible for the Minister for Health, Dr. J. Heng Liu, who was detained by the work involved in the inauguration of so important a reform, to attend the session of the Committee. He thought that these various facts afforded conclusive proof of the Chinese Government's desire to find a speedy solution for the problem.

#### **441. Examination of the Chinese Government's Proposals for the Organisation of a National Quarantine Service: Appointment of a Sub-Commission.**

The PRESIDENT proposed that a Sub-Commission should be appointed to study the Chinese Government's proposals concerning the organisation of a national quarantine service.

Dr. RAJCHMAN proposed that the Sub-Commission's terms of reference should be as follows :

1. To consider the request of the Chinese Government for the League's collaboration in obtaining the benefit of the experience of Health Services in other countries in the reorganisation of the present quarantine services, and to do so on the basis of the existing international sanitary conventions, and relevant national practices.
2. To determine principles that might be taken as a guide in completing the survey of the more important Chinese ports.
3. To study proposals which will be submitted as a result of the survey and advise the Health Committee regarding the scheme to be submitted to the Chinese Government.
4. To confer in so doing with any experts who may be delegated by the Transit Organisation of the League, in conformity with the request of the Chinese Government, before submitting the scheme to the Health Committee.

Sir George BUCHANAN understood that the appointment of the Sub-Commission with these terms of reference did not mean that the Health Committee was bound by them. Certain of the points involved—for example, that concerning arrangements with the Transit Organisation—were questions which could be discussed again later.

Dr. RAJCHMAN replied that, as the Health Committee had determined the terms of reference, it was clearly free to make any changes which it thought good, but that the Sub-Commission could not itself make any changes.

Sir George BUCHANAN observed that his point was that items 1 and 2 in the Sub-Commission's programme were obviously matters which would have to be considered at once in connection with the Medical Director's report. Items 3 and 4, on the other hand, would have to be considered at some future date, when the enquiries had reached a more advanced stage. He wished it to be made clear that, if the Sub-Commission thought it necessary to propose, in regard to items 3 and 4, certain changes in its attributions, it would be free to do so.

Dr. RAJCHMAN reminded Sir George Buchanan that the Sub-Commission's terms of reference had been submitted to him before being presented to the Committee and expressed surprise at the doubts which Sir George Buchanan expressed somewhat late in the day on this subject. He earnestly pressed for the adoption of the terms of reference as they stood. If the Sub-Commission subsequently considered that certain changes should be made, it would have to obtain the sanction of the Committee.

Sir George BUCHANAN said that he agreed with the main lines of the programme presented. His only object was to safeguard the position so that, if it were found later that the lines on which the Sub-Commission was working were not desirable, it would be free to propose changes.

*The terms of reference of the Sub-Commission were adopted.*

*It was decided that the Sub-Commission should consist of the following members:*

M. VELGHE (*Chairman*); Sir George BUCHANAN, Dr. LUTRARIO, Surgeon-General CUMMING, Dr. JITTA, Professor MIYAJIMA, Dr. RAYNAUD, Professor NOCHT; *Secretaries*: Dr. BOUDREAU and Dr. PARK.

M. VELGHE did not attempt to conceal from himself the gravity and difficulty of the problem. He nevertheless readily accepted the invitation to preside over the Sub-Commission and hoped that all the members would willingly consent to sit on it, for he was convinced of the great importance of the work to be undertaken.

When China turned to the League and asked for its help in a great humanitarian task, personal convenience must be forgotten, and they must think only of the 400 million inhabitants who would benefit from the help given by the Health Organisation. He therefore wholeheartedly accepted the task which had been entrusted to him.

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## SECOND MEETING

*Held on Thursday, March 6th, 1930, at 10 a.m.*

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*President*: Dr. Th. MADSEN.

### 442. Collaboration between the League of Nations and the Chinese Government as regards Health Matters: General Discussion.

Dr. Yen came to the table of the Committee.

Professor MIYAJIMA, as a former member of the Provisional Health Committee which in 1922 had decided to extend to the Far East the work of the League in the domain of international public health, expressed his particular pleasure in attending the present extraordinary session of the Committee and participating in the discussion on the very important report prepared by the Medical Director. It was particularly interesting to see the work which had been begun in 1922 and 1923 by Dr. Norman White develop into a vast programme, as now embodied in the plans formulated by Dr. Rajchman, with the assistance of Dr. Boudreau, after their extensive travels in the Far East.

Professor Miyajima was extremely glad to see, after an interval of nearly seven years, the remarkable growth and extension of the work of the League's Health Organisation in the Far East, an extension to which he had made his modest contribution in the initial stage. As one of the initiators of the League's work in the Far East, he wished to express his satisfaction at the great interest shown by the Health Committee, and more especially at the untiring efforts of the Medical Director and his associates. The plans now under consideration were of particular interest to Japan, and accordingly Professor Miyajima desired to express his admiration for the results obtained by the Medical Director in the brief time at his disposal and the grasp of the situation shown in the documents before the Committee. He desired also to congratulate the Chinese Government upon its courageous determination to include the reorganisation of the health services of China among its manifold activities. The task was not a simple one, and the difficulties might appear almost insurmountable, but for any nation which hoped to survive in modern conditions it was an essential task, and one which would challenge both the technical and the administrative capacities of any nation.

For the moment, Professor Miyajima did not propose to embark upon a detailed discussion of the vast programme submitted, part of which would be considered in detail by the Sub-Commission.

From the general and, in particular, the international point of view, the most important of the plans formulated in the report was that for the reorganisation of the quarantine service in China. Japan and China being neighbours, the interest of the former in the commercial and economic relations between the two countries was a permanent one, and a well-defined system of port quarantine in China, as stipulated in the International Sanitary Convention, would not fail to benefit both countries, and also all maritime countries throughout the world. The questions of the reorganisation of medical training and of the establishment of various medical institutions, both national and provincial, and the problems of smallpox and cholera control in Shanghai, were of primary importance in connection with the modern development of medical science, which must inevitably follow the reorganisation of China in accordance with the modern political, economic and social system.

Professor Miyajima would further venture to observe, speaking from fifty years' experience, that the Japanese administration had likewise had many bitter experiences to undergo owing to the handicap resulting from various internal and international difficulties. It was only by patiently striving with all the resources at its command that the Japanese administration had been able to overcome these difficulties and establish a national health service. Japanese medical men took a constant interest in the development of the Chinese health service, and Professor Miyajima could assure his Chinese colleagues that Japan would be glad to co-operate with them to the fullest possible extent, either through the League or through any other organ, in the work which they were now endeavouring to accomplish in China.

The PRESIDENT was sure that he was interpreting the feelings of all the members of the Committee in thanking Professor Miyajima for his statement. It was important, not only from the point of view of international collaboration, but, in particular, for the success of the great work which the Health Organisation was about to undertake in the Far East. On behalf of the Health Committee, he thanked Professor Miyajima for the initiative he had taken seven years previously, and which was the real point of departure for the entire work of the Health Organisation in the Far East.

Dr. YEN expressed his thanks to Professor Miyajima for his statement, and, in particular, for his assurance that Japan would co-operate in the reorganisation of the Chinese health services. He could, in turn, assure the Committee that the Chinese administration was prepared to collaborate with its Japanese colleagues through the League or in any other way.

Sir George BUCHANAN associated himself with the President's expression of satisfaction at Professor Miyajima's return. From the beginning, Professor Miyajima had thought in terms of co-operation between the League and the Far East; he had worked with that object and he could speak with an authority which the other members of the Committee did not possess. His encouragement would be of the greatest possible value to the realisation of the scheme before the Committee.

After reading the Medical Director's report and hearing the statement which he had made on the previous day, Sir George Buchanan confessed that he could not imagine a mission more difficult and delicate than the Rajchman-Boudreau mission, or one that could have been pursued with greater zeal, judgment and success.

It was proposed to transmit the report embodying the Chinese Government's proposals to the Council as it stood, and it did not seem that the Health Committee need hesitate to do so. It could at the same time say that it accepted the several proposals for co-operation and considered that they were within the competence of the Health Organisation and within the limits of the funds placed at its disposal by the last Assembly for co-operation with the Chinese Government in health matters.

On the previous day, M. Velghe had spoken of the responsibilities which the Committee was asked to undertake in this matter. In one sense those responsibilities could be carried lightly; in another sense they were certainly heavier. They were light in regard to the lines of action. It was not the Health Committee which had selected those particular lines of action, namely, taking over the sanitary organisation of the big ports, starting a national sanitary institute and national hospital, the medical educational methods explained to the Committee, and so forth. That was the programme of the Chinese Government now in authority. The Committee's part was to see how far the League's Health Organisation could assist in such a programme. It was even possible to imagine another Chinese Government at a later date desiring to concentrate on other and different health questions in place of those now put before the Committee. The latter would have no cause for complaint. The present scheme was not being imposed by the Committee on China; it was the scheme of the Government, which had applied to the League. The Committee's debt to the Rajchman-Boudreau Commission was that it had on this basis made clear in China what the Committee could do, and what it was anxious to do, to help in the realisation of a programme which had been agreed to be practicable in the present circumstances.

On the other hand, there was, Sir George Buchanan agreed, a sense in which the Committee's responsibilities were heavy. If it were to send to China representatives of its technical commissions or experts in the prevention of epidemic diseases or members of the staff of the Health Section, it must see that they represented the best and most understanding advice which it could give. It would, therefore, be impossible to take too much care in selecting the men or in securing competent international assistance for those who went out to China as the Committee's representatives. No one could have listened to the Medical Director on the previous day without realising that what might be called Western medicine and Western hygiene would have to win through in China, not as superior doctrines from the outside, but for what they could do on their merits and from the way in which they could be introduced into, and adapted to, Chinese development and philosophy.

From this point of view, Sir George Buchanan looked rather more hopefully on the proposal to assist selected Chinese doctors and prospective medical administrators to visit foreign countries than on the despatch of foreign experts to China, necessary though both methods were. The main thing needful seemed to be that China should select the right men with a constructive faculty to go to Europe or America to pick up essentials, disentangle them from mere Western habits and traditions and work out for themselves the way in which these essentials could be secured by methods, perhaps quite surprising to Western medical men, in their own country. It seemed to Sir George Buchanan possible, for example—though he did not pretend to express an opinion—that much in the way of developing medical practice in China might be secured by building on the apprenticeship and individualistic system which had been described to the Committee rather than by concentrating unduly on the modern Western medical curricula and diplomas. The demand in the appendix to the report that the prospective doctor must have devoted not less than 3,600 hours to the study of professional subjects appeared too much like Western academic pedantry.

Furthermore, Sir George Buchanan would like to see the Chinese investigator consider, in regard to the prevention of epidemic diseases, whether he should always be led away by the prospect of immediate temporary results. Anti-cholera inoculation could certainly do much in a crisis, but it was not easy to inoculate all the citizens every six months all through their lives, and it might be better to concentrate on slower achievement by obtaining safe

water-supplies and pure food. These measures would do much more good incidentally than the mere prevention of cholera.

As regards his own country, Sir George Buchanan rejoiced daily that neither anti-cholera inoculation nor the typhoid bacillus had been known in the middle of the last century. Far less progress would certainly have been made in England if they had been known. The introduction of a system of universal compulsory vaccination against smallpox, if that were proposed, should be considered on its merits, taking into account the circumstances of smallpox in China. An alternative would be to place vaccination voluntarily at the disposition of everyone for himself and his children, but without any compulsion. If, as Sir George Buchanan thought, it could confidently be said for practical purposes that no one who accepted the offer of vaccination and revaccination need contract smallpox or need worry about being in contact with the disease, should it not be enough to let the alternatives of smallpox or vaccination be realised by the logic of facts in so individualistic a country as China, without troubling about compulsion?

In connection with interchanges to enable selected Chinese doctors to go abroad, it might be a good plan to allow some of them to visit, not Europe or America, but countries nearer to China, where quite effective services against epidemics existed and where hospital provision and anti-malaria measures had been established among populations no less detached from ideas of modern medicine than the bulk of the population in China. In so far as this could be demonstrated in the British colonies, he felt confident that application had only to be made and that facilities would readily be given.

There was one final point to be emphasised in connection with the visits to foreign countries of Chinese medical officers for study purposes. Sir George Buchanan felt convinced that such officers should not go globe-trotting or be hustled through one country to another or even from one centre to another in the same country. They would need time, not only on account of the difficulties of language, but for many other reasons, to get to understand the people, the spirit of the medical work, and the public health administrations which they were to investigate. If it were desired, and Sir George Buchanan could only hope that it would be desired, that the medical services in Great Britain should assist in this scheme, at the British ports or in the larger cities or elsewhere, he felt that the British services could only do justice to their Chinese colleagues and to themselves if ample time were allowed to them for their visit and to the British services for preliminary arrangements.

Dr. LUTRARIO confessed that, when informed of the Chinese Government's request, he had been unable to refrain from thinking, in view of the enormity of the task, of the fable of the king who summoned to his court a sage to count the drops of water in the sea; and he felt great satisfaction that, notwithstanding the multiplicity and complexity of the questions which had been considered, the mission of Dr. Rajchman and Dr. Boudreau had succeeded in placing their investigations on a practical basis.

Among the points studied in the memorandum, two questions, in particular, had attracted Dr. Lutrario's attention—those of the training of personnel and the quarantine service; that was to say, the two questions which were most closely connected with the organisation of health (*a*) in the interior of the country and (*b*) at its points of contact with the exterior, for the ports were, so to speak, the ganglia of the system which placed the country in relation with other countries.

Dr. Lutrario would pass over for the moment the question of quarantine in order to dwell on that of personnel. The doctor was at the centre of the entire health organisation. He was the pioneer, or precursor. Unhappily, China's greatest need was for doctors. Dr. Rajchman had estimated that there were about 4,000 doctors in China; that was to say, one doctor for every 100,000 inhabitants, whereas in the United States of America there were 80 for every 100,000 inhabitants and in Italy 62. There was, however, more than this; the doctors, although few in number, tended to concentrate more and more in the big urban centres, and the country districts were almost entirely untended. In regard to training, the situation seemed even more deplorable. Out of 4,000 doctors, perhaps 1,000 had received a training which placed them on more or less the same footing as Western doctors. Finally, the doctors were grouped into rival castes, a fact which restricted their powers of action still further. For all these reasons, Dr. Lutrario believed that the teaching of medicine should be the primary preoccupation of the Chinese authorities in remodelling the medical system.

Attention should be drawn, not only to the necessity of forming a medical corps, but also to the functions of the doctor. In this respect, treatment in the home was the first big stage in any organisation. To take an example, if Italy had succeeded in overcoming great epidemics of cholera and smallpox in the past, it was because she had had the private practitioner; that was to say, the *medico condotto*. Next to treatment in the home came treatment in the dispensaries, which increased a doctor's capacity, both in time and space. Last came the hospital. It was most fortunate that the creation of one central hospital and of a peripheral training hospital, which would make possible first and foremost the practical study of epidemiology, was already under consideration.

Dr. Lutrario also drew attention to the courageous work carried out by the missionaries in China, who were the first to found hospitals and to inaugurate the movement in favour of Western medicine. They were a moral force which should not be overlooked. He further pointed out that the work of medical men could not be wholly successful if it were not strengthened by the additional assistance of the auxiliary staff: namely, missionaries first and also the nursing staff.

The question of personnel raised the question of funds. Dr. Rajchman had said at the previous meeting that the Chinese Government intended to devote to its health organisation

a million Chinese dollars ; that was to say, half a million gold dollars or two and a-half million Swiss francs. That was a considerable sum of money, but it would soon be found to be quite inadequate. Had Dr. Rajchman received any assurance that the necessary funds would not fail to be forthcoming as the Government's plan developed ?

In conclusion, Dr. Lutrario congratulated Dr. Rajchman and his assistant, Dr. Boudreau, on the remarkable work they had accomplished.

Professor Léon BERNARD wished to thank Dr. Rajchman for having supplemented his written report by one of those spoken commentaries in which he was a past-master. The members of the Committee, who, for the most part, had no knowledge of China, were bound to feel a certain measure of modesty when confronted with so circumstantial and complete a report.

It was particularly striking to see the way in which, in the past eight years, the prestige and the authority of the League had grown in the Far East. Professor Miyajima had been impressed by the progress made in establishing relations between the Health Organisation and those countries.

Professor Léon Bernard wished to say a few words on the question of study tours for Chinese doctors and on the teaching of hygiene and preventive medicine. The very great progress which had been made in France in the preparation of a general collective tour gave grounds for hope that real benefit would be derived from it, and he ventured to promise that Chinese officials who might go to France would have a very interesting trip. They would be received there with open arms.

In regard to teaching, there was more to say. The history of medical teaching was at the present time at a turning-point. All countries realised that, hitherto, they had been the slaves of obsolete methods and that the framework was bursting under the great volume of knowledge. The result was a wide disagreement, in fact and in theory, upon the number of years to be devoted to study and on the way in which the years of training should be employed. How much time must be given to certain sciences which were sometimes termed accessory and sometimes fundamental as compared with clinical knowledge ? How much time must be allotted to the old anatomy of the previous generations and to the sciences of the laboratory ? In what order should the various subjects be studied ? These problems gave rise to very different conceptions in the various countries. It might be said that there were two theories—the American theory, according to which teaching should begin with anatomy, physiology and the laboratory sciences and finish with practical medicine ; and the French theory, which was that the doctor should be thrown from the outset among the patients in hospital, as a dog was thrown into water to force him to learn to swim. These problems, which fifty or seventy-five years ago had caused no discussion, appeared now to be very difficult to solve.

Nevertheless, a conclusion must be reached. The present situation in China offered an opportunity for conducting interesting experiments in this field. In view of the close connection between public hygiene, preventive medicine and the training of doctors, it was the Health Committee's duty to take up the question as a whole. The Commission on Education was prepared to study the question, but the work should, he thought, be divided. In his opinion, the training of hygienists should be quite distinct from that of doctors. For this reason he would propose that there should be set up in the Commission on Education a Sub-Commission consisting of directors of schools of hygiene.

Obviously, it was not to be supposed that the training of Chinese doctors must follow exactly the pattern of that of doctors belonging to old civilisations. Nevertheless, the general principles should be the same.

Professor Léon Bernard did not entirely share Dr. Lutrario's opinion of missionaries. It was true that there had been missionaries in China for a long while, but the present state of Chinese medicine hardly seemed to redound to their honour. It was the spirit of charity by which they were animated and the policy which they followed towards the native population which had perhaps induced them to make use of medicine ; but, speaking generally, it was the doctor who should be a missionary and not the missionary who should be a doctor. In this connection, he might recall the opinion of Marshall Lyautey, who had said that it was the doctors who had given him the most help in carrying out his policy of pacification and civilisation in Morocco.

Lastly, Professor Léon Bernard wished to make an observation on anti-smallpox vaccination. It was obviously impossible, *a priori*, to impose vaccination on the people, but it would be still more regrettable if the expert sent to China went there with the idea that no coercion must be exercised in this matter. On the contrary, he should base his work on the principle that compulsory vaccination should be enforced whenever possible.

In conclusion, Professor Léon Bernard thought the task before China was an extremely long and difficult one. From the point of view of medical treatment, China was practically in the same situation as that of the Western countries in the Middle Ages. That was not a reason why she should follow the same development as had occurred in those other countries. She should, on the contrary, benefit by the experience which they had acquired and trace out a new programme which would be calculated to give the best results in the circumstances in which the country was at present placed.

Dr. JITTA first wished to congratulate Dr. Rajchman on the very clear and succinct statement which he had made on the previous day.

He did not think that Professor Léon Bernard had entirely understood Sir George Buchanan's opinion regarding compulsory anti-smallpox vaccination. He wished, however, to say that he agreed with Professor Léon Bernard's opinion on this point. He reminded the Committee that, in the Netherlands, a particularly conclusive experiment had just been made.

A smallpox epidemic had broken out in that country in the previous year, and the total eradication of the disease was undoubtedly due to the fact that two million people had been vaccinated or revaccinated. No case of smallpox had been recorded in the Netherlands since the end of December 1929.

Dr. Jitta proposed that Chinese doctors should visit, among other countries, the Dutch Indies, where they would have a very friendly reception. This seemed particularly desirable, since the Dutch Indies had a very large Chinese population.

He did not propose to dwell on the question of education, but considered that the bull must be taken by the horns; that was to say, before taking up the training of doctors, the first thing to do was to ensure general and social hygiene on a large scale. For instance, the urban centres must be given a good water-supply and housing conditions improved.

Professor NOCHT said that he had visited China forty-five years previously. At that time there had been no trace of what was termed medicine in the West. He had been surprised to learn that there were already as many as four or five thousand modern doctors in the country. That represented great progress. He had, moreover, had an opportunity of noting the intelligence and enthusiasm of the young Chinese doctors who had worked in his Institute.

He considered that the question of quarantine had two different aspects. There was, first, the protection of China against the importation of infectious diseases. That was not the most important aspect. Boats arriving from foreign ports were, for the most part, large vessels in which sanitary conditions were closely supervised and they therefore presented very little danger. There came next the question of the export, if he might use the term, of cholera and smallpox from Chinese ports to other ports. That was a serious question, and the doctors in Chinese ports should closely supervise the small sailing or steam vessels going to other ports in the Far East.

Professor PITTALUGA thought that the report raised three major questions. The first was that of quarantine. He would pass this over, since a special Commission had been appointed to study it. The second question was that of establishing a health service and health institutions in the strict sense of the term. This was a matter which was of the most immediate interest from the point of view of the proposed collaboration between the technical organs of the League and the technical organs now being set up in China. The third question was that of education.

Dr. Rajchman had drawn special attention to the determination with which the Chinese Government had attacked the second problem. Its plans were concrete and limited, and this was a pledge of success. Furthermore, distinguished men like General Graham had shown what could be done in the matter of hygiene in countries where it did not, so to speak, exist. Moreover, Dr. Rajchman's report had so fully explored all the possibilities of co-operation between the Chinese Government and the technical organisations of the League that it was impossible to discuss the matter except perhaps in regard to budget questions. Professor Pittaluga considered, therefore, that the Health Committee should enthusiastically accept the Chinese Government's invitation.

He was glad that Professor Léon Bernard had put his finger on the most interesting point in the problem, that of training. The rudimentary condition of medical treatment in China made it possible to create something entirely new from the medical point of view.

Dr. Lutrario had pointed out that in Western countries there was a doctor for about every 1,000 inhabitants. That situation should cause satisfaction; but it must not, however, be forgotten that medicine, in the sense in which it was understood by the majority of practitioners, was a very old form of medicine, so old that it might be said that it differed as much from the new preventive medicine as Chinese medicine differed from Western medicine. It was useless to conceal the fact. The ignorance of 90 per cent of the doctors in practice was one of the most formidable obstacles to the formation of an effective system of preventive medicine. No such obstacle existed in China, which accordingly presented a very interesting field of action, and Professor Pittaluga hoped that the Health Committee would see fit to adopt an absolutely different line from that which had been taken in connection with medicine in the last two or three centuries.

In view of the vastness of China and the density of its population, it would be impossible, with the Western system of medical treatment, to obtain any appreciable results in the near future. Furthermore, the Chinese people did not expect the same services from a doctor as Westerners. In these conditions, why not break away from routine and introduce preventive medicine exclusively? In brief, Professor Pittaluga considered that the organisation of the Chinese medical service should be reduced almost entirely to the training of hygienists. He thought that the basic programme which the Chinese Government had indicated as a previous condition for obtaining a medical diploma was extremely theoretical and in many points even useless. He thought that this fact should be brought to the attention of the Chinese Government.

Dr. LUTRARIO wished to point out to Professor Léon Bernard that he had not fully understood his observations regarding missionaries. He had not meant to say that missionaries should replace doctors. He had merely thought that they might do useful work as auxiliaries.

Professor LÉON BERNARD agreed that this suggestion was a very interesting one.

Dr. LUTRARIO said that, if he had spoken of treatment in the home, it was because the report had mentioned it. In reply to Professor Pittaluga, he observed that for twenty-five years he had been at the head of a medical administration, and had had opportunities for ascertaining that general practitioners were educated men who were entirely up to their work. During the war they had given the full measure of their ability.

Professor LÉON BERNARD also disagreed with certain suggestions made by Professor Pittaluga. In regard to preventive medicine, he could not be suspected of hostility, since on his appointment as Professor of Hygiene in the Faculty of Medicine he had asked that his Chair be called the Chair of Hygiene and Preventive Medicine. Nevertheless, while sharing to some extent the opinion of Professor Pittaluga regarding Western preventive medicine, he could not admit that it might be said that 90 per cent of the medical profession were blind to the science of preventive medicine, nor could he allow the moral value of medical corps, which had performed extremely useful work in regard to sick persons, to be disparaged.

No extreme dogma of preventive medicine should be substituted for the former conception in regard to the teaching of medicine. If Professor Léon Bernard had spoken of separating the training of doctors from that of hygienists, it was because he had been thinking of a more advanced set of studies and of the training of specialists. As he had always said, if a man had not had a complete medical training, he could only be a bad hygienist.

Anti-typhoid vaccination was to be introduced into China. Would the hygienists be capable of imposing it if they did not know what typhoid fever was, what was the bacillus of Ebert, what were the centres of its culture? Could tuberculosis be treated without a knowledge of the rules for the diagnosis of this disease? Nothing was more difficult than the diagnosis of tuberculosis; but, if it were desired to set up an anti-tuberculosis dispensary, it was indispensable to have doctors capable of this diagnosis; otherwise, disastrous mistakes would be made. It was important to understand that any act of social or preventive medicine must be based on diagnosis.

Nor should the psychological and moral aspects of the question be ignored. Those hygienists who made medicine appear in a vexatious light or as a police measure, for the populations saw it in no other light, would run the risk of injuring the cause of health. While diagnosis was the basis of all preventive action, the basis of the confidence of the population was the treatment of sick persons. Hygienists should have no false pride; there would always be sick persons, and the duty of the doctor would, first and foremost, be their treatment.

Dr. CHODZKO considered that the discussion had gone somewhat astray. He recalled that the Chinese Government had drawn up the plan of health reorganisation now before the Committee. That was a guarantee of success, for the Chinese Government knew better than anyone else the situation existing in its country. The main lines of the programme were comparatively modest. They proved the traditional wisdom and prudence of the Chinese people, and were perfectly adapted to the conditions prevailing in China. Dr. Chodzko found nothing to criticise in the Chinese Government's plan. He would congratulate that Government as he would also congratulate Dr. Rajchman for having given his co-operation.

He would merely ask Dr. Rajchman for some explanations on points of detail. On page 44 in the letter from the Medical Director to the Minister of Health at Nanking was the following passage :

“ When once fully developed, the central field station would be entrusted with the training of health officers, sanitary inspectors, health visitors and a special category of ‘ sanitary secretaries ’, to whom the Medical Officer could confine a major part of the administrative office routine.”

The difference between sanitary inspectors and sanitary secretaries was not clear.

In the same letter, on page 47, the Medical Director stated :

“ The Advisory Board of the Singapore Bureau will discuss, at its session in February 1930, the advisability of collecting information on medical education in the area of the Bureau's activities, and this information, when collected, will be made available for your Commission.”

That was a new task for the Singapore Bureau, and he would be glad to know what expansion that task would involve.

In conclusion, Dr. Chodzko would refer rapidly to the question of education, which had just been discussed in detail. He shared the opinion of Professor Léon Bernard that, without clinical preparation, there could be no good hygiene. He would point out in that connection that, at the School of Hygiene in Warsaw, an attempt was made to complete medical training from the point of view of the clinical study of infectious diseases, and that 120 hours were devoted to that study. Moreover, hygiene could not be introduced without the aid of clinical medicine, particularly in the homes of the peasants and the workers. It was on the occasion of an illness that the doctor could give advice in regard to hygiene, which would certainly be followed in these circumstances.

Professor PITTALUGA felt obliged, in view of the criticisms of which his speech had been the object, to clear himself. His words had been taken a little too seriously. He simply wished to point out that, in such a virgin field as China, it was necessary to follow a different direction from that followed by Western medicine during the eighteenth and nineteenth centuries, and that efforts should, above all, be directed to the hygienic aspect.

The PRESIDENT noted that the Committee was unanimous in congratulating Dr. Rajchman and in adopting his report. It would perhaps be useful to point out in that connection that the report was so studied, so digested, if he might make use of the expression, that it did not give an account of all the difficulties which had been surmounted.



At the same time, the discussion had brought into relief some interesting points. In particular, it appeared that in China, where active vaccination had existed some centuries before it was known in Europe, it was essential to introduce compulsory vaccination to the greatest possible extent.

The observations of Professor Léon Bernard on training had led to interesting suggestions. It might be inferred that, if it were desirable to profit by the rudimentary state of medicine in China to introduce innovations, the basis of the system of training should, nevertheless, be the creation of medical practitioners. That would give the minimum knowledge necessary in the training of a modern doctor, and, if account were not taken of that necessity, there would be risk of creating quacks. It was true that medical training differed in different countries. In some countries doctors were very far removed from the modern spirit, in others they kept in touch with new tendencies. The latter was the case in the Scandinavian countries, Germany, England, and the United States of America, and their example proved that the two tendencies—that of the old type of medicine and that of preventive medicine—could easily be conciliated.

M. VELGHE recalled that he had been asked to put in writing the conclusions of the day's discussion.

It seemed clear that the path to hygienic action by the doctor must be prepared by medical treatment, and that it was necessary to adapt the teaching of medicine to the conditions of the country. Moreover, sanitary organisation in European countries had not developed in such a manner that a perfect system, at once applicable to all countries, could be contemplated.

Above all, the questions raised were not such as could be solved immediately, save, perhaps, that of vaccination against cholera and smallpox. Compulsory vaccination, wherever it could be applied, constituted the only rapid means of success. Nevertheless, it was not indispensable to mention it in the Committee's resolution. It would suffice that the experts who went to China should be inspired by the desiderata of the Committee.

The resolution to be prepared would therefore deal with the following points :

1. Note the attitude of the Government of China ;
2. Congratulate Dr. Rajchman and his collaborator, Dr. Boudreau, for the work they have accomplished ;
3. Approve, in its broad outlines, the Medical Director's report ;
4. While not disguising the difficulties of the task, or the time necessary for its completion, decide to respond to the appeal of the Chinese Government.

Sir George BUCHANAN thanked the President for drawing attention to the fact that his remarks on the question of vaccination, which appeared to have given rise to some misapprehension, were purely incidental. The actual phrase which he had used fully expressed the idea that he had had in mind, which was whether, in order to promote vaccination in China, it would be advisable to make it compulsory, or whether it would not be more easily acceptable by the population if the authorities concentrated on giving facilities for vaccination and demonstrating its advantages in face of epidemic smallpox, compulsion with the whole system of penalties which it involved being kept in the background.

Dr. RAJCHMAN thanked the members of the Committee in the name of Dr. Boudreau and himself for their kind remarks. He was very glad to welcome Professor Miyajima, who had been good enough to go to Shanghai to discuss with the Minister for Health and with Dr. Rajchman the plan submitted to the Committee. He was certain that the Committee would greatly appreciate the promises of co-operation exchanged between Professor Miyajima and Dr. Yen.

Dr. Rajchman was grateful to Dr. Chodzko for having pointed out that the plan had been established on the responsibility of the Chinese Government itself. Without doubt that Government would receive with the utmost gratitude the observations of the Health Committee. The plan, however, had already been adopted and was not under discussion. Nevertheless, he had been extremely glad to note that it had received the complete approval of the Health Committee.

He was entirely in agreement with Sir George Buchanan in regard to the choice of the experts who would visit China. The Committee should be guided solely by technical considerations, and it should give proof that in technical matters it abandoned all political considerations.

In regard to the plan of study and interchange, it was quite correct to say that it was unnecessary to limit it to European countries.

In regard to smallpox, the position was clear. It should be remembered in that connection that China did not present a blank sheet. Chinese doctors had treated smallpox for a very long time. Dr. Rajchman had discussed the question in detail with the Chinese Government. He had pointed out to the Chinese hygienists that, since their Government was a revolutionary Government, often making use of very radical methods, it would doubtless have no trouble in imposing compulsory vaccination. They had replied that they had to deal with autonomous local authorities who would certainly desire to retain their autonomy in such matters. Dr. Rajchman had then pointed out that, in Belgium, where there was no compulsion, the Belgian population believed that vaccination was compulsory. It would be desirable to arrive at a similar result in China. It would be very dangerous to offer the population the choice between the disease and vaccination, but it would not be dangerous to offer them the illusion that they might choose.

He considered that Dr. Lutrario had rightly insisted on the very great services rendered by missionaries. Obviously, China had need of all possible assistance. Nevertheless, it was

not for the Committee to decide how the Chinese Government could make use of this or that external aid. The Chinese Government wished, above all, to create an organisation which would be entirely national from the technical, administrative and financial points of view. At the same time, the Committee did not need to consider the funds to be devoted by the Government to the organisation of sanitary services. If the Government had any assurance to give, it was not to the Health Committee but to the Chinese population. There had already been 160,000 dollars devoted to the work. That was a guarantee of the good intentions of the Government. Moreover, all the financial burden would not fall on the Central Government. In Tche-Kiang, for instance, it was the Provincial Government which had to find half a million for the establishment of its hospital.

Dr. Jitta had given an extremely happy example in referring to the results obtained in the Netherlands from vaccination. Mass vaccination was to-day carried out to some extent everywhere. In that connection, the measures taken by General Graham with a view to vaccination against cholera of the population coming to the market of Allahabad might also be recalled. In four weeks, one million persons were vaccinated. Dr. Rajchman had offered to the Nanking Government every facility for sending a doctor to Allahabad to make himself familiar with the methods employed there. In conclusion, the idea of sending Chinese doctors to the Dutch Indies, as outlined by Dr. Jitta, seemed to Dr. Rajchman very interesting.

Professor Nocht had spoken, in regard to quarantine, of the dangers of coastal traffic from the point of view of contagion. Those dangers were considerable, but at the same time it should be pointed out that the modern steamers going to China ran a risk of spreading infectious diseases. A study of the epidemiological statistics showed that, in seasons favourable to epidemics, this was the case. The Japanese declared, on their side, that the greater number of cases of smallpox noted in the quarantine centres were of European origin.

In regard to Professor Pittaluga's views on medical training in China, very difficult problems were raised in regard to which no opinion could at present be pronounced. Above all, Dr. Rajchman would warn the members of the Health Committee against the dangers of depreciating Western medicine. All countries were anxious to emancipate themselves, and it would be very dangerous to suggest that the old Chinese practices or Hindu medicine would suffice. The problem of training, moreover, could be solved if the Government proceeded resolutely to apply itself to the matter. Forty years ago it had been said that the problem in Japan was almost insoluble. Nevertheless, it had been solved and well solved.

Finally, Dr. Rajchman considered that the question raised by Dr. Chodzko regarding the qualifications of sanitary secretaries demanded a longer reply than could be given at the present moment.

In regard to the Singapore Bureau, the matter was very simple. The Advisory Committee, which had met two or three weeks previously, had proposed to establish a centre of information at Singapore. From the day on which that centre was instituted, it would be a great deal simpler for Far-Eastern countries to ask for information from Singapore than from Geneva.

*The continuation of the discussion was adjourned to the next meeting.*

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### THIRD MEETING

*Held on Friday, March 7th, 1930, at 10.30 a.m.*

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*President: Dr. Th. MADSEN.*

#### 413. **Collaboration between the Health Organisation and the Bulgarian Government in the Campaign against Syphilis in Bulgaria: Adoption of a Resolution.**

The PRESIDENT read the following draft resolution:

“ The Health Committee:

“ Having noted the report of the Health Section (document C.H.837);

“ Recommends the acceptance of the proposal made by the Bulgarian authorities for the collaboration of the Health Organisation in a campaign to be undertaken against endemic syphilis prevalent in certain areas of Bulgaria;

“ Is glad to note that the Commissariat of the League of Nations for the Settlement of Bulgarian Refugees is prepared to assume responsibility for the expenses involved in the preliminary enquiry, the training of the necessary personnel and the carrying out of the prophylactic campaign;

“ Invites its Commission of Experts on Syphilis and Cognate Subjects to afford all requisite technical assistance, including the placing of the services of an expert at the disposal of the Bulgarian authorities.”

*The draft resolution was adopted (Annex 10).*

444. **Collaboration between the League of Nations and the Chinese Government as regards Health Matters : Adoption of a Resolution.**

The PRESIDENT read the following draft resolution :

“ The Health Committee :

“ After study of the proposals of the National Government of the Republic of China for collaboration which it desires with the League of Nations on health matters ;

“ And having examined the report submitted by the Medical Director concerning the Mission carried out on the invitation of the Government of China :

“ Approves the report as a whole and expresses appreciation of the attitude adopted by the Government of China.

“ The Health Committee :

“ Considering that the Council of the League of Nations has expressed the wish that all necessary assistance should be afforded in the development of China ; that the collaboration requested is entirely in harmony with the programme and aims of the technical organisations of the League of Nations ; and, while fully appreciating the difficulties of the task with which it is confronted and the time required to accomplish it ;

“ Recommends to the Council the approval of the entire programme of collaboration presented by the Government of China as set forth in the report of the Medical Director, and requests the latter to make arrangements for providing the assistance of the Health Organisation in giving effect to that programme, if approved by the Council.”

Professor OTTOLENGHI said that the circumstances in which the Health Organisation of the League would decide to assist the Chinese Government were indicated in the report (document C.118.M.38.1930.III) in a slightly different form. On the one hand, there was the letter from the Minister for Public Health of the National Government of the Republic of China, and, on the other, the letter from the Medical Director which appeared as Annex 1 to the report.

The letter from the Minister for Public Health and the proposals of the Chinese Government which were attached to the letter, contained a fairly general programme of collaboration, based on the usual procedure adopted by the League in connection with other countries. This programme did not call for any immediate and extensive decisions except, perhaps, as regards the quarantine service, the study of which had just been entrusted to a Sub-Commission. Annex 1, however, contained definite instructions and a rather comprehensive programme to be applied, apparently, immediately. The resolution which had just been submitted to the Committee for adoption clearly covered the whole report and required the adoption, as a whole, of the proposals summarised in paragraph 14 of Annex 1, amongst other things.

Professor Ottolenghi was very glad to support the scheme for effective collaboration with China, but he could not help remembering the mandate of the Health Committee and expressing, in consequence, some reservations and some doubts regarding which he would like the Medical Director to give some explanations.

It was clear that all possible assistance must be given to China to further its efforts at reorganisation ; but it must not be forgotten, on the other hand, that the Health Organisation already had important duties to perform, duties which would continue to increase and develop. In different countries in Latin America and Europe, in the East, etc., it was doing important and special work. Further, it was dealing with other matters relating to international problems of great general interest which, on several occasions, had absorbed the whole of its personnel and financial credits.

In these circumstances, it was necessary, before approving a certain programme of collaboration, to ascertain whether the Health Organisation could accept full responsibility without sacrificing its other obligations and, in particular, those entrusted to it by the Council and the Assembly.

Professor Ottolenghi wished next to raise the question of the collaboration of the Health Organisation in the medical training and preparation of health officials. In the Medical Director's report reference was often made in this connection to the Commission for the Teaching of Hygiene and Preventive Medicine. He wondered whether it would not be desirable, before adopting resolutions on this matter, to allow that Commission to express its opinion and give general suggestions. Those suggestions would form the initial basis of the work to be done by those who would be called upon to carry out the necessary research on the spot, and would enable them to become the real liaison officers between China and the Health Committee and its technical Commissions. By this means the proposed collaboration would be closer and more effective.

Dr. RAJCHMAN first replied to the second question raised by Professor Ottolenghi, and pointed out that the Commission for the Teaching of Hygiene had already been asked to deal with the question. It had been arranged that this Commission should meet at Dresden on or about July 14th on the occasion of the Health Exhibition, and that a complete memorandum on the question should be presented and discussed during that meeting.

He did not think he was qualified to reply to the first point raised by Professor Ottolenghi, namely, the question whether the Health Committee could undertake the new task which had been proposed. He thought that only the Health Committee itself was competent to determine the extent of its work.

Dr. Rajchman finally indicated that there was no difference of any kind between the letter from the Chinese Government and his reply to that letter. He had merely given greater precision to the general indications contained in the letter from the Chinese Government.

The PRESIDENT thought that Dr. Rajchman's reply concerning the intervention of the Commission for the Teaching of Hygiene was entirely satisfactory. He did not think it was desirable to reopen a general discussion of principle upon the second question.

Professor OTTOLENGHI said he did not find any difference of substance between the two documents to which he had referred. Nevertheless, the programme contemplated by Dr. Rajchman seemed to him to go a little farther than the proposals of the Chinese Government. This, however, was a question of form and, for him, the important question was whether the Health Organisation, in assuming this new task as a whole, would be able to proceed with its other work under satisfactory conditions.

Dr. RAJCHMAN insisted that the programme which he had submitted in no way exceeded the Chinese proposals, but was only a logical interpretation of them. In order to avoid all disagreement with Professor Ottolenghi on this point, he asked that the question might be elucidated by a sub-commission.

M. VELGHE pointed out that, in preparing the draft resolution, he had endeavoured to meet the wishes expressed by the Committee. Professor Ottolenghi had asked whether the Health Committee and the Health Section would be able to undertake this new work. That, however, was a question which arose every session and he would observe that, though the means of the Health Organisation were not unlimited, it had nevertheless been created to do as much good as it could. If the Committee considered that work might usefully be undertaken, it was bound to accept and undertake such work. It would be for the Assembly to provide the necessary means. The draft resolution had been drawn up in that spirit.

Professor OTTOLENGHI repeated that, in the first part of his observations, he had raised, above all, a question of form. His principal question was precisely that which M. Velghe had just summarised.

The PRESIDENT thought that, in these circumstances, there was no need to refer the draft resolution to a sub-commission, and he proposed that it should be examined, paragraph by paragraph.

Dr. RAJCHMAN read the first part of the draft resolution :

“ The Health Committee :

“ After a study of the proposals of the National Government of the Republic of China for the collaboration which it desires with the League of Nations on health matters ;

“ And having examined the report submitted by the Medical Director concerning the Mission carried out on the invitation of the Government of China ;

“ Approves the report as a whole and expresses appreciation of the attitude adopted by the Government of China.”

After a short exchange of views, the *first part of the resolution was adopted*, with slight amendments of form.

Dr. RAJCHMAN read the second part of the draft resolution :

“ The Health Committee :

“ Considering that the Council of the League of Nations has expressed the wish that all necessary assistance should be afforded in the development of China ; that the collaboration requested is entirely in harmony with the programme and aims of the technical organisations of the League of Nations ; and, while fully appreciating the difficulties of the task with which it is confronted and the time required to accomplish it ;

“ Recommends to the Council the approval of the entire programme of collaboration presented by the Government of China as set forth in the report of the Medical Director, and requests the latter to make arrangements for providing the assistance of the Health Organisation in giving effect to that programme, if approved by the Council.”

*The text of the second part of the resolution was adopted*, with a slight amendment of form proposed by Professor Léon Bernard and Sir George Buchanan.

*The draft resolution as a whole was adopted (Annex 10).*

Dr. YEN wished, on behalf of the Chinese Minister for Health, to thank the Committee for the resolution which it had just passed. He wished, further, to thank the Committee for its promise of active collaboration and its decision to send Dr. Park to China to complete the survey of the question of the quarantine services in the Chinese ports. He was sure that the Chinese Minister for Health would very gladly collaborate with Dr. Park in this task. In conclusion, he wished to thank the Health Committee for its long and fruitful discussion of a problem with which the members could not be personally familiar.

The PRESIDENT, on behalf of the Health Committee, expressed his appreciation of Dr. Yen's statement. He could assure Dr. Yen that the Chinese Government would receive the most devoted collaboration on the part of the Committee.

Dr. Yen withdrew.

445. **Examination of the Chinese Government's Proposals for the Organisation of a National Quarantine Service : Adoption of a Resolution.**

Dr. RAJCHMAN read the following draft resolution :

“ The Health Committee :

“ After a study of the proposals of the National Government of the Republic of China concerning the collaboration of the League of Nations in the reorganisation of the quarantine services of the Chinese ports, and on the advice of the Commission for Quarantine Measures in China nominated during the present session :

“ (1) Accepts the proposals made by the Chinese Government to obtain the benefit of the experiences of health services in other countries in the reorganisation of the present quarantine services ;

“ (2) Approves the arrangements proposed by the Health Section that Dr. Park should visit China forthwith in order to complete the survey which has already been begun, and report to the Commission thereon at an early date. In his report Dr. Park should give special consideration to the possibilities of the satisfactory application of the provisions of the International Sanitary Convention of 1926 ;

“ (3) Notes that the Commission has given Dr. Park certain guiding lines for this survey. These include : the sanitary equipment of ports ; the nature of the action to be taken against the importation and exportation respectively of infectious diseases and the measures needed to deal with the special conditions of coastal traffic.

“ (4) Notes that Dr. Park, on the completion of his survey, will submit proposals for consideration by the Commission regarding the scheme to be submitted to the Chinese National Government ;

“ (5) Requests that the Commission in so doing should confer with any experts who may be delegated by the Transit Organisation of the League, in conformity with the request of the Chinese Government, before submitting the scheme to the Health Committee.”

After a short exchange of views, *the draft resolution was adopted with slight amendments of form* (Annex 10).

446. **Opium : Application of Articles 8 and 10 of the International Opium Convention of 1925 : Opinions requested by the Social Section and the Permanent Central Opium Board : Collaboration of the Health Organisation with the Advisory Committee on the Traffic in Opium and Other Dangerous Drugs.**

Dr. CARRIÈRE, Chairman of the Opium Commission, apologised for not having been present at the opening of the session. This had deprived him, to his very great regret, of the pleasure of hearing the remarkable statement of Dr. Rajchman on his mission in China and of associating himself with the expressions of friendship which the Committee had addressed to its President on the occasion of his sixtieth birthday.

He presented, on behalf of the Opium Commission, a report (Annex 2) concerning :

- (1) the application of Articles 8 and 10 of the International Opium Convention signed at Geneva on February 19th, 1925 (documents C.H.843, 850 and 852 ; Annexes 3, 4 and 5) ;
- (2) two questions put to the Committee by the Social Section of the Secretariat and the Permanent Opium Central Board (document C.H.851 ; Annex 6).

Dr. Carrière wished to add to this report a few personal observations with a view to keeping the Committee informed of the work done by the Advisory Committee on the Traffic in Opium at its last session. There were certain points which were of immediate interest to the Committee.

The Advisory Committee on the Traffic in Opium had devoted much time during its last meetings to the question whether the control of narcotic drugs, as now in force, should not be replaced by another system, namely, that of the limitation of manufacture. The majority had hitherto considered that the system of control, as defined in the Geneva Convention, if strictly and honestly enforced, could constitute an effective barrier against the illicit traffic. Dr. Carrière wished to state that this was still his personal conviction. Nevertheless, the position had been profoundly modified owing to the decision recently adopted by the Council and the Assembly, instructing the Advisory Committee to draw up a plan for the limitation of the manufacture of narcotic drugs and to prepare for the convening at an early date of a conference of manufacturing countries and of some consuming countries, for the purpose of giving legal form to this plan in a special arrangement.

This decision concerned the Health Section in so far as the Opium Section had asked it to compile statistics concerning the world consumption of drugs for the purpose of drawing up the plan of limitation (it may be noted that a similar task was some years ago entrusted to a joint committee, consisting of members of the Health Section and of the Advisory Committee, and that the latter worked out certain figures which were found to be in need of serious revision).

The Health Section, in deference to this request, had instructed Dr. Wasserberg to undertake the work. The latter had made use of all available material and accomplished a piece of work to which Dr. Carrière desired to pay a sincere tribute. The data used were of the most varied description—in some cases very accurate, consisting of estimates of requirements in narcotics furnished by a certain number of States ; in other cases resting on very approximate deductions

which themselves were based on more or less accurate figures available in respect of certain groups of countries. By comparing and co-ordinating these various data, Dr. Wasserberg was able to establish figures for the world consumption of various narcotic drugs per head of the population per annum. These were, of course, averages, very approximate averages, moreover, which could not be applied as they stood to each individual State. Notwithstanding this formal reservation, the Advisory Committee did not see its way to accept the figures, and it had expressed a desire that the Health Section should continue its researches in order to obtain figures which would be acceptable.

Dr. Carrière did not think that there was any need at this juncture to analyse the criticisms formulated at the meeting of the Advisory Committee, which left out of account the fact that Dr. Wasserberg's figures were merely averages, and that he had never claimed for them the value and significance of accurate and final mathematical data. They were only intended to represent provisional figures which would make it possible, to determine approximately the requirements of the countries which had not furnished estimates. Dr. Carrière merely wished to define what assistance the Opium Section still required of the Health Section in this matter. Obviously, this assistance could not be refused, and the Health Section was undoubtedly willing to help the Opium Section in its work. It could merely do so, however, by revising the existing figures on the basis of estimates which the countries that have not yet done so will be requested to furnish. The work would, therefore, be one of progressive and periodical revision, which should by degrees provide increasingly accurate figures as the estimates furnished by the States became more numerous and accurate.

In the opinion of Dr. Carrière, and, he felt convinced, in that of the Health Section also, this was the only manner in which the latter could co-operate with the Opium Section in its work. He thought that this would also be the view held by the Committee.

The PRESIDENT, on behalf of the Health Committee, cordially thanked Dr. Carrière for his interesting statement and Dr. Wasserberg for the heavy work which he had undertaken.

*The report by Dr. Carrière was unanimously adopted.*

#### 147. Establishment of a Permanent Secretariat for the Unification of Pharmacopœias.

M. VELGHE briefly summarised the history of the question. It was proposed to establish a permanent international secretariat and two international committees in conformity with the resolutions adopted by the Second International Conference at Brussels for the unification of the formulæ of heroic drugs.

The aim was to appoint a permanent body which, between sessions, would endeavour to unify the formulæ and methods of preparation of certain drugs. The Belgian Government, to whom the conclusions of the Conference had been addressed, had forwarded them to the League of Nations. Further, by a letter dated February 22nd, 1930 (Annex 9), the Belgian Government had intimated that the international arrangement resulting from the Conference had been signed by fourteen Powers, and that the permanent secretariat had therefore been virtually created and its provisional working entrusted to the Belgian Commission on Pharmacopœias.

The Council, at its meeting on August 30th, 1929, had noted the first communication of the Belgian Government and decided to refer the question to the Health Committee for study.

He would recall the terms of Article 24 of the Covenant of the League, in which it was said :

“ All such international bureaux and all commissions for the regulation of matters of international interest hereafter constituted shall be placed under the direction of the League.”

The International Conference at Brussels had decided to create a permanent secretariat entrusted with a work of an international character and it seemed, therefore, that Article 24 of the Covenant must apply in the present case. This secretariat should normally be placed under the authority of the League, provided, of course, that the League agreed. Article 24, moreover, also contained the following provision :

“ In all matters of international interest which are regulated by general conventions, but which are not placed under the control of international bureaux or commissions, the Secretariat of the League shall, subject to the consent of the Council and if desired by the parties, collect and distribute all relevant information and shall render any other assistance which may be necessary or desirable.”

Such were the terms of the Covenant. There had, in his opinion, arisen a slight misunderstanding when the question had first been submitted to the Council. The Rapporteur had introduced into his draft resolution a paragraph which referred to the “ desirability of entrusting the Health Organisation of the League with the work of this secretariat and these commissions”. This passage had given rise to objections, particularly on the part of the representative of Italy, who had protested against the tendency to group at Geneva all institutions whose activities were international. Finally, the Council had accepted the draft resolution proposed by its Rapporteur, suppressing, however, the passage to which he had alluded, and had referred the question to the Health Committee for study.

M. Velghe observed, on the other hand, that the permanent secretariat was already established at Brussels and that the Belgian Government earnestly desired that it should remain in that city. In these circumstances, he wondered whether the Health Committee should concern itself with the details of the programme of work of that institution. It seemed to him wiser to leave the matter to the persons concerned, at least to some extent, as it was

evident that, if the new institution required financial assistance from the League, the Health Committee would be called upon to intervene and to give its approval or not as the case might be. For the moment, in his opinion, the question at issue was whether the new institution, situated at Brussels, was of sufficient importance to justify the application of Article 24 of the Covenant.

Dr. RAJCHMAN said that it was not for the Health Committee to settle the legal question of the application or non-application of an article of the Covenant. In his opinion, the Council, in referring the proposal to the Health Committee and requesting its observations, had wished to obtain a technical opinion. The question of the application of Article 24 of the Covenant and its interpretation was a matter for the Council itself to decide. The Health Committee should, in his opinion, settle the question whether the Health Organisation could deal with this task from the technical point of view and whether the previous activities of the Organisation justified a proposal that there should be a co-ordination of work. It was necessary, in any case, to deal only with technical considerations. If he had well understood the intentions of the members of the Committee, they wished for the moment merely to have an exchange of views and to leave the final decision to be taken at a later session.

Dr. LUTRARIO recalled that the question of the unification of pharmacopœias had already been the subject of several Conventions and Conferences. He would mention, in particular, the Convention of November 29th, 1906, signed at Brussels for the unification of formulæ for heroic drugs. In January 1913, a Conference had been held at Brussels with a view to the unification of pharmacopœias and the regulation of patent medicines. Finally, the Conference at Brussels in 1925 had led to the conclusion of the Arrangement of August 21st, 1929, for: (a) the unification of the formulæ for heroic drugs; (b) the creation of a permanent secretariat for the unification of pharmacopœias.

Fourteen States had signed this Arrangement, but it should be pointed out that nine of them had made fairly important reservations.

The two objects were mutually connected and complementary, so that it was proposed, not only to unify the formulæ of drugs known as heroic drugs, but the pharmacopœias themselves. Moreover, as regarded the bodies to undertake this work, there would be two international Committees. One would be entrusted with the unification of the methods of chemical and physico-chemical prescriptions, and the other with the unification of the methods of preparing galenic and heroic drugs. Finally, there would be a permanent secretariat for the unification of the pharmacopœias.

He did not think that it was possible entirely to standardise pharmacopœias. They included a portion which might be unified—more particularly, the portion covering heroic remedies. There was another portion which could not be standardised, namely, that which dealt with remedies exclusively used in certain countries or certain districts. He would quote various remedies of this kind, as, for example, theriac, pollen powders, etc. The unification of the whole of the pharmacopœias could not, therefore, be contemplated, and the work must be confined to heroic drugs. Owing to the difficulties involved, it was desirable to proceed by degrees, and to take only the remedies to which reference was made in the Brussels agreement.

It was also necessary to consider the question of homœopathic pharmacopœias, to which no reference had been made. This question had received considerable attention in Italy and the homœopaths desired to have a pharmacopœia and one which could be unified.

As regards the bodies entrusted with the work, Dr. Lutrario did not see any necessity to appoint two committees. The Health Committee had already a Standardisation Commission which was dealing with sera and vaccines, with opotherapeutic preparations and with certain heroic drugs (arseno-benzines, digitalis, hydrastis). It did not seem necessary to multiply the bodies dealing with the work, since the Health Organisation already had a Commission which was dealing with this question and which was worthy of full confidence.

Dr. Lutrario thought that the legal question of the application of the Covenant was completely outside the competence of the Health Committee. The Council had, however, asked for advice. It was clear that it was impossible to attach to the League of Nations all existing international institutions. It must not be forgotten that an excessive internationalism impeded initiative and destroyed the sense of responsibility. The question of the financial charges involved could not, moreover, be completely neglected. He was not in any way opposed to the creation of the contemplated secretariat, though it did not seem to him necessary to apply Article 24 or to attach this body to the League of Nations.

In conclusion, he would summarise his views as follows :

1. As regarded the pharmacopœias, standardisation should be limited to the heroic drugs, and particularly to those mentioned in the text of the Agreement ;
2. This work should be entrusted to the Standardisation Commission of the Health Committee. In view of the great interest which Italy took in the question, he would be glad if an Italian member were added to this Commission ;
3. If a secretariat to deal with the pharmacopœias were appointed, it should be placed outside the framework of the League of Nations and should also include an Italian member.

The PRESIDENT reminded the Committee that this Standardisation Commission was dealing only with biological methods. It had always abstained from dealing with chemical methods and was incompetent to do this work. It could not be entrusted with the task in question, and it would be necessary to appoint an entirely different Commission.

Sir George BUCHANAN entirely agreed with Dr. Lutrario's plea that the discussion should be confined to heroic remedies and should not extend to the unification of pharmacopœias. It seemed to him that the best point of view from which to contemplate this question was that of pure opportunism. That, indeed, was what, as he understood it, the Health Committee was invited to do by the Council.

What were the facts? A Convention existed which had been signed by fourteen countries and which had established a temporary office at Brussels. The British Government had not adhered to the Convention, not because it had necessarily any objection to it, but because it wished first to have further information as to the ground covered. An official arrangement therefore existed with a temporary secretariat at Brussels.

Three courses had been suggested. First, that the secretariat should continue as an independently constituted body; secondly, that the secretariat at Brussels should continue, but should be placed under the authority of the League in accordance with Article 24 of the Covenant; thirdly, that it should cease at some convenient time to be an independent office and should become part of the normal Secretariat of the League. The Health Committee was asked to indicate which of these three solutions was the most convenient. It was difficult to give an answer without a sufficient idea of the work which the secretariat would be required to do. There would be certain obvious advantages from the secretarial point of view—the question of translations, etc.—in having the permanent secretariat at Geneva. On the other hand, if the secretariat had been established at Brussels with a body of competent officials, it seemed that it would be a great mistake to remove it merely for the sake of the system. The Committee would have to know what were the lines on which the officials at Brussels considered they should work, what was approximately the volume of their work, and what would be the expenses involved.

If a permanent office were established in Brussels under a Convention, there would have to be some contribution—though perhaps only a small one—from the associated countries. However small that contribution, there would be a tendency on the part of some Governments to say that it was most undesirable that they should contribute towards the expenses of the office, but that Article 24 should apply to it and that it should be brought within the general budget of the League. This, therefore, might, on the balance, be a decisive consideration for rejecting the first and choosing between the second and third of the solutions which he had mentioned. He could not go further for the moment, since, before coming to a definite conclusion he would like to have as much information as possible concerning the advantages and disadvantages involved. Nevertheless, he thought that the Committee should dismiss altogether the idea that it was necessary to have the permanent secretariat at Geneva for the sake of form; in his view it might sometimes be a good thing to scatter the Committee's work and get it done in different countries on behalf of the Committee.

Dr. JITTA noted, as M. Velghe had done, that the Council had suppressed a portion of the draft resolution submitted by its Rapporteur. This had been done because the Council did not wish to assume responsibility in regard to a technical question which it felt should be referred to the Health Committee.

Without desiring to go into the question of the legal interpretation of Article 24 of the Covenant, he thought that this article should be applied in the present case.

The unification of pharmacopœias was a question which had been studied for a long time. In the pharmacopœias there were obviously two different categories of remedies to be considered—heroic remedies and other remedies. The heroic remedies did not come within the sphere of the Standardisation Commission as it was at present composed, but it would perhaps be possible to entrust this work to the Commission if the number of its members were slightly increased. As regards the other remedies, there were evidently some which might be called local and which were special to a particular country or region. There was also, however, a common body of remedies which it would not be impossible to standardise.

He would emphasise the importance of the permanent secretariat. It would be quite easy to leave this institution at Brussels and to delegate a representative to the Health Organisation to keep in touch with its work.

He would, moreover, draw attention to the new conditions which at present prevailed in the application of the pharmacopœias. The world was flooded with a quantity of new pharmaceutical products. It was clearly impossible to require that all these products should be analysed, but they all included active principles which might be studied with a view to restraining the mania for patent medicines which at present prevailed. Standardisation in this field would assist the campaign against charlatanism, and that would be an excellent thing.

He was disposed to support the idea of appointing a permanent secretariat for the unification of pharmacopœias on which certain nations would be represented. It did not, however, seem to him possible to take a decision at once, and he thought that Dr. Rajchman might usefully study the problem, in particular, from the financial point of view, which was important for the League of Nations. The Medical Director would present proposals with a view to a decision at the next session of the Health Committee.

*The continuation of the discussion was adjourned to the next meeting.*



#### FOURTH MEETING

*Held on Friday, March 7th, 1930, at 3.30 p.m.*

*President: Dr. Th. MADSEN.*

448. **Establishment of a Permanent Secretariat for the Unification of Pharmacopœias.**  
(continuation).

Dr. HAMEL observed that there were two questions before the Committee. The first, raised by M. Velghe, might be summed up as follows: Should the League concern itself in the unification of pharmacopœias? The other, that raised by Dr. Rajchman, amounted to the following: Was the League in a position to assume, from the technical point of view, responsibility for such unification?

It was somewhat difficult to reply to these questions. The last resolutions adopted by the Brussels Conference differed from previous resolutions concerning heroic drugs and, furthermore, the programme of unification, covering nomenclature, maximum doses, description, identification and analysis of chemical products, etc., appeared unduly ambitious. In addition, there was the fact that the powers of the international organisation for the unification of pharmacopœias were not sufficiently defined. It was not clear whether the Health Committee could influence it in any way with a view to restricting the extent of its duties, or how far the Health Committee would be involved if it assumed any responsibility in this matter.

The Committee was entitled to ask whether it could contemplate so vast a unification extending to all races and all climates. The forms of the remedies and of the pharmaceutical preparations differed from one country to another; some countries—Germany, for instance—used a large number of manufactured medicines; others preferred medicines prepared individually by chemists. The cost of the undertaking would, moreover, be considerable. The sixth edition of the German Pharmacopœia had appeared some years previously. The preparation of this edition, the laboratory work and analyses carried out in order to determine the content of the various medicines, etc., had cost approximately 100,000 Swiss francs. It was useful to point out that it had been impossible to solve many questions to the general satisfaction in the German Pharmacopœia, which, it must, however, be remembered, applied only to a single country. The experts had, for instance, been unable to agree on the question of the directions to be followed in determining morphine content; the question had had to be settled by a majority vote.

There were, in this matter, two points of interest to doctors—the maximum dose and standardisation. The maximum dose of heroic drugs was, however, practically uniform everywhere and standardisation could only be applied in certain cases. Moreover, these two points represented only an insignificant part of the vast programme drawn up at Brussels.

The experiments necessary for analysing the drugs presented enormous difficulties. There were few experts who were capable of carrying out such work successfully. There were only one or two even in the countries which were the most advanced from the standpoint of pharmaceutical chemistry. The pharmacists, on their side, would not welcome the reforms enthusiastically, since they would be obliged to change a large part of their equipment—for example, the signature on their jars, etc.—in order to conform to the new directions. Again, an obstacle would arise in the legislation of certain countries. In Germany, for instance, heroic drugs could only be obtained through doctors who had qualified in Germany. This applied also to many other countries, and the situation would scarcely be changed by the contemplated unification of pharmacopœias.

In view of all these difficulties, it was very doubtful whether it was worth while to attempt compulsory unification. The task was an ungrateful one and did not seem to come within the scope of the Health Committee. If, however, the League assumed responsibility for this work, it would be advisable to consider whether it would not be better to entrust the task to a special Commission instead of to the Health Committee.

Dr. Hamel recalled that Sir George Buchanan had already asked whether the proposed organisation would have its office at Brussels or Geneva, and whether it would work under the supervision of the Health Committee. It would be desirable to discuss the advantages or disadvantages of these different solutions.

M. VELGHE reminded the Committee that, if he had raised the question of procedure or of competence, it was because at the Council session at which the letter from the Belgian Government regarding the establishment of the permanent secretariat for the unification of pharmacopœias had been examined, the Rapporteur had proposed the adoption of a recommendation which contained the following passage:

“The Council recognises the desirability of entrusting the work of this secretariat and of these Committees to the Health Organisation of the League.”

That amounted to solving the problem before the Health Committee was consulted. The above passage had given rise to a discussion, as a result of which it had been decided that the Council would refer the question to the Health Committee for examination and forward to it the observations made by the members of the Council. It was for this reason that it seemed to M. Velghe that the Health Committee was called upon to deal with this aspect of the question.

Dr. Rajchman had replied that it was for the Council to consider in what way Article 24 of the Covenant should be applied. Several members of the Health Committee, however, had ventured on to the forbidden ground, in particular, Dr. Lutrario and Dr. Hamel.

Fundamentally, the first question was one of competence. Was the Health Committee going to allow the chemists to do as they liked, or would it say that the question was within its purview and that it was far more competent than the chemists? M. Velghe thought that, in order to settle this question of competence, it was necessary to consider the matter only from the standpoint of technical utility. Was there in the unification of pharmacopœias anything which was of sufficient interest to the Health Committee, and should the League undertake this work of unification, either through the Health Committee or through some new responsible Commission?

The opinions put forward by the members of the Committee showed much hesitation in the matter. All the members had drawn attention to the excessively wide scope of the programme of the Brussels Conference. All had agreed that the ground was slippery. M. Velghe personally thought that, from the health point of view, it was quite right to say that the question did not concern the Committee. He hoped, however, that at the next session, after mature reflection, the Committee would arrive at a fully considered resolution which would be adopted unanimously.

Dr. RAJCHMAN thought that both M. Velghe and himself were in the right. The Council had forwarded its observations to the Health Committee, not in order that the latter might discuss the application of Article 24, but in order to ascertain whether it considered that the question of the unification of pharmacopœias came within its competence.

Dr. Rajchman referred the members to document C.H. 856, (annex 9) containing the letter from M. Hymans, Belgian Minister for Foreign Affairs, to the Secretary-General and, in an appendix an account of the method of organisation and functions of the permanent secretariat for the unification of pharmacopœias. This document showed that the functions of the secretariat were not very considerable, but that they were highly specialised. Dr. Rajchman thought that, if it were desired to entrust this new task to the Health Organisation, it would be sufficient to create a new post in the Health Section, a post which would be relatively unimportant, and to attach to it a stenographer.

In order to make things quite clear, he wished to say that the Health Section was not at all anxious to take up the matter, for, after all, its importance, from the point of view of public health and preventive medicine, was not very great. If, however, the Council decided that a special organisation entrusted with this task should be placed under the patronage of the League, he hoped that the Health Committee would be charged with its supervision. In any case, there could be no question of responsibility unaccompanied by exclusive supervision.

Dr. CARRIÈRE said that he had some experience of the question of pharmacopœias.

He had presided over the Commission which had prepared the fifth edition of the Swiss Pharmacopœia, and had had an opportunity of observing that an international secretariat for pharmacopœias might be of use. He did not contemplate the total unification of pharmacopœias—that was an impossibility—but he thought that a secretariat or a committee might render useful service to the various national committees which were charged with the preparation of the pharmacopœias in their own countries.

Dr. Hamel had observed that the sixth edition of the German Pharmacopœia had cost about 100,000 Swiss francs. The fifth edition of the Swiss Pharmacopœia had already cost at least 100,000 francs. It might, however, be supposed that, if an international committee had already collected a large amount of information, the work would be greatly simplified thereby.

This fact would be brought out by an illustration. All drug manufacturers had their opium analysed by a London firm. Notwithstanding this fact, it had been noted that similar samples presented on analysis a divergence amounting to as much as 1.5 or 2 per cent. Would it not be generally useful to have a uniform basis for these analyses?

Dr. Carrière was not, therefore, as sceptical as some of his colleagues. As regards the way in which the secretariat should be organised, it was difficult, at the present moment, to give an opinion. He thought that the Health Section might accept the work without any very great difficulty, and that the Standardisation Commission, in particular, might deal with it. It had been objected that this Commission consisted of only two or three members. Why, however, could not its membership be increased?

Dr. LUTRARIO agreed that the question of specialities was a very difficult one. Some of them had a mineral base, while others had an organic and yet others a mixed base. In Italy, it had been seen, in connection with the application of the law on medical specialities, that the tests carried out in the chemical laboratories were extremely long and difficult. The analysis of a mineral water from the quantitative point of view absorbed a chemist's entire attention for a whole year.

Sir George BUCHANAN felt that the debate had been very useful in clearing the minds of the members of the Committee. He was afraid, however, that it would be rather difficult for some of the members to take back, for the consideration of the authorities concerned in their own countries, the views that had been put forward. It was all very well for those countries which had adhered to the Arrangement, but the position in Great Britain, which had not yet decided whether to adhere, was different.

On his return to his country he would be asked what was the effect of the Committee's debate on the question whether Great Britain should adhere or not. If he had properly judged the sense of the discussion, it was that no step further should be taken by the Health

Organisation on such dangerous ground ; that the question should be considered in its endless and various ramifications ; and that, unless some vague committee came forward to solve it in the distant future, nothing could be done. This uncertainty as to the future of the proposed secretariat would not help him in advising whether Great Britain should adhere to the international Arrangement, and he imagined that the same conclusion would be drawn in regard to other countries which were in the same situation.

He might, however, be wrong, and for that reason he would ask that the Minutes should be as full as possible, always on the understanding that the discussion was of a conversational nature and represented the personal views of the members. It would be extremely useful to have a full note of the contentions that had been advanced.

It would also be useful if the Secretariat or Dr. Velghe could provide the members of the Committee with copies of the Arrangement, with the different reservations which had been made.

M. VELGHE, in reply to Sir George Buchanan, said that the Committee was not asked to consider whether the different countries were right in adhering or not to the Brussels Convention. He would, however, so far as possible, get together all the information which might be of value and send it to him.

There was no question of establishing a compulsory international pharmacopœia, but merely of placing at the disposal of the different countries a scientific instrument which could not fail to be very useful. The scope of the pharmacopœia was limited by the facts. The Brussels secretariat could not be told to go forward or stop work on the ground that the Health Committee was as well qualified to carry out its duties. He felt obliged to add that Dr. Rajchman had failed fully to appreciate the task to be undertaken by the international secretariat when he had said that its work might, for instance, be done by a new assistant with the help of a stenographer.

Professor PITTALUGA thought the problem one of minor importance. The Health Committee could obviously concern itself in certain questions which it was desired to link up with those that had been studied by the international secretariat at Brussels ; but, briefly, Professor Pittaluga did not think it was expedient for the Health Committee to assume responsibility for the unification of pharmacopœias.

Dr. RAJCHMAN wished to dissipate a small misunderstanding. The second Conference held at Brussels had decided that it would be desirable to entrust the unification of pharmacopœias to a Commission of Enquiry. The Belgian Pharmacopœia Commission consisted of scientists, and Dr. Rajchman had had no intention of suggesting that their work could be carried out by one or two people. He had been thinking of the permanent secretariat which the Belgian Pharmacopœia Commission had proposed to set up. The duties of the secretariat, which, according to the letter from the Belgian Minister for Foreign Affairs, had been virtually created, might in Dr. Rajchman's opinion be entrusted to a chemist or a person who was fully acquainted with questions of chemistry. He might possibly be assisted by a clerk.

The PRESIDENT agreed with Dr. Rajchman that, if the unification of pharmacopœias were placed under the auspices of the League, the Health Organisation must have complete control. He considered, however, that the question had not been sufficiently studied to make it possible to find a solution at the moment. He reminded the Committee that the Health Organisation had under consideration a number of remedies, among them, for instance, sera and vaccines. It had also take up the questions of vitamins and opium. In view of the wide scope of these problems, it would be better to postpone the Committee's reply to a later session.

*The President's proposal was adopted.*

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## FIFTH MEETING

*Held on Saturday, March 8th, 1930, at 9.30 a.m.*

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*President: Dr. Th. MADSEN.*

### 449. **Message of Condolence to the French Government on the Occasion of the Disaster in South-West France.**

Dr. CHODZKO was sure he was speaking on behalf of all his colleagues in expressing to Professor Léon Bernard his deepest sympathy in the disaster which had just overtaken twelve French departments.

The PRESIDENT, on behalf of the Committee, associated himself with Dr. Chodzko's remarks, and, as he believed it to be impossible for the Committee to address a communication direct to the French Government, requested Professor Léon Bernard to be good enough to transmit the Health Committee's message to his Government.

Professor Léon BERNARD was deeply touched by the words of Dr. Chodzko and the President. He would inform the French Government of the Committee's message of condolence, which would certainly be deeply appreciated.

450. **Note by the Medical Director on the Work of the Health Organisation since the Last Session of the Committee.**

Sir George BUCHANAN said that the proposed enquiry by the Health Section into certain questions relating to influenza, mentioned in the Medical Director's progress report was of great interest to Great Britain, and the Ministry of Health would be pleased to assist, if it were possible to do so.

With reference to the statement concerning Pituitary (Posterior Lobe) Extract, to the effect that a standard identical to that preserved by the Hygienic Laboratory at Washington had been distributed by the National Institute for Medical Research, London, to nine establishments and institutions, it should be pointed out that the London Institute was not attempting to supplant the Hygienic Laboratory at Washington as the centre for the distribution of the standard; but that, as it happened, for other reasons, to have available a large stock of the same standard as that preserved in Washington, it had agreed to place it at the disposal of the institutions mentioned.

He would be glad if Dr. Madsen could give further information on the progress of the enquiries into scarlet fever and diphtheria immunisation.

Professor OTTOLENGHI wished first to express his appreciation of the changes which had been made in the *Monthly Epidemiological Report*. Each number now contained a special article on the epidemiology of an important contagious disease. These articles were very interesting and extremely well done.

He asked leave to give a few further particulars on the work of the Mixed Commission in Anthrax. The meeting of experts, which had been held in June, had noted that it was possible to disinfect anthrax-infected hides and skins by the Casaburi method, modified in accordance with the tests carried out at the Bologna Institute of Health. Before recommending this method officially, however, it would be useful to experiment on a semi-industrial scale. This work would necessitate the allocation of funds, though not a very large amount. Professor Ottolenghi thought he could inform the Committee that Dr. Carrozzi intended to take the necessary steps in this matter. At the June session of the Committee, there had also been a discussion on the question of a programme of general health regulations for the trade in, and treatment of, hides and skins in connection with the prevention of anthrax.

The PRESIDENT, in reply to Sir George Buchanan, said that the enquiries concerning diphtheria and scarlet fever immunisation were being continued, but that hitherto no general report had been received. It did not, accordingly, seem possible to contemplate a meeting in the current year, and it would, he thought, be preferable to wait until the following year, so as to have adequate information available. The Secretariat would be able, during the course of the winter, to draw up a note indicating the progress of the work.

Sir George BUCHANAN thanked the President for his statement. If any studies of these severe types of scarlet fever or diphtheria, or any clinical studies, should be arranged, he would be glad of a chance to participate in them, or, at any rate, to be informed of them.

The PRESIDENT added that wide differences had been noted, as between Berlin and Copenhagen, in regard to the sero-therapeutic treatment of diphtheria. It had been proposed to organise an interchange of clinicians to undertake investigations in the different countries concerned. The situation at Berlin in the current winter had been less serious than previously. Nevertheless, an assistant had gone from Copenhagen to Berlin and had observed that the cases were the same and that, where satisfactory results had been obtained, it had been due to the administration of heroic doses extending to as many as 700,000 units. This observation was, of course, only a simple opinion and was in no way to be regarded as a final decision.

The President added that one general error had been noted in these researches. The same anti-diphtheria toxin was not used everywhere for the Schick reaction. It would be desirable to consider the standardisation of the anti-diphtheria toxin.

Dr. LUTRARIO also congratulated Dr. Rajchman on the improvements made in the *Monthly Epidemiological Report*, which now contained very interesting statements on the history, etiology, legislation, etc., of important contagious diseases. Without wishing to submit a definite proposal, he asked whether it would not be possible, in future, to complete these statements with a short summary giving clinical data. Such data would be very useful to health officers who, without being clinicians, found it valuable to have information on these questions.

The PRESIDENT observed that the compliments which had been addressed to the Medical Director applied to the members of the Health Section as well.

Sir George BUCHANAN had a strong impression that the excellent résumés contained in the *Monthly Epidemiological Report* should be signed by the authors, but he proposed to reserve this question for another occasion.

He would ask permission to indicate the progress made by the Cancer Commission. The work done by the Commission since the last session had been limited to two fields, (1) radiology, and (2) occupational cancer.

As regards radiology, the Commission had thought it desirable to give time for the recommendations contained in the report by the radiologists on cancer of the uterus to be disseminated and discussed. One of the points made in the report was the necessity for an agreed classification of cancer of the uterus and its general acceptance. The question now, therefore, was to ensure general progress in the adoption of that system,

as well as of a uniform method of recording the results of radiological treatments, so that those results could be afterwards assessed on the basis of the combined experience of many countries.

In regard to occupational cancer, there was a very interesting report from Dr. Carrozzi, for which Sir George Buchanan wished to thank him, and which contained an excellent résumé of the questions relating to tar and pitch cancer, and cancer caused by oil. The report on lung cancer in the mines of Joachimsthal contained very interesting results, showing the intensity of cancer in this small mining area. Out of fourteen deaths which had formed the subject of an autopsy, ten cases had been found with carcinoma of the bronchi.

Dr. RAJCHMAN reminded the Committee that the Assembly and Council had examined the work of the Health Committee. He had given at the beginning of his general note a summary of the decisions taken by the Council and the Assembly.

The Assembly had expressed the greatest satisfaction with the activities of the Health Organisation, and this feeling had been converted into concrete form in the shape of a supplementary vote.

The Council had also approved the work of the Health Organisation and had decided to extend the term of the members of the Committee until July 1st, 1930. In these circumstances, a new Committee would have to be appointed by the Council at its May session, for the Council now held only three sessions a year instead of four, and the following session would take place at the beginning of September ; that was to say, after the date on which the term of the present members expired.

The PRESIDENT noted that the Committee had no observations to offer on the various decisions summarised at the beginning of the Medical Director's report.

In regard to the next session of the Health Committee, he reminded the members that it had been arranged to hold it at the end of May, that was to say, after the meeting of the Office international d'Hygiène publique. Unfortunately, at the time when this date had been fixed, it had not been known that the Council would meet on May 12th and would, at that session, have before it the question of the appointment of the new Health Committee. The situation was obviously a delicate one. The list of the new members of the Health Committee would be published some days after May 12th, so that at the end of the month there would be two Health Committees in existence, the old and the future Committees. It would, therefore, seem hardly possible for the present Committee to meet at the end of May, and he proposed for the moment not to convene it, but to await the new nominations.

Professor Léon BERNARD agreed with the President that the situation was somewhat unusual. It was difficult and even impossible to contemplate a session of a Committee which had virtually ceased to exist, and he concurred in the President's proposal.

It must be remembered that the Committee consisted partly of members chosen by the Committee of the Office international d'Hygiène publique, and partly of members nominated by the Council of the League. It was obviously desirable that the Council should have some guide in its choice. Moreover, in 1926, at the time of the renewal of the Health Committee, the President had been instructed to submit a list of candidates to the Council. The considerations which had been advanced then applied no less in the present circumstances, and, this being so, Professor Léon Bernard wished to submit the following draft resolution :

“ The Health Committee :

“ In view of the terms of the arrangement made with the Office international d'Hygiène publique which governs the Health Organisation of the League of Nations ; and

“ Realising that it is appropriate that it should, in the near future, submit proposals to the Council of the League of Nations regarding the forthcoming nomination by the Council of members of the Committee :

“ Decides to request the President and the permanent Vice-President to make the necessary proposals with regard to the designation of members of the Health Committee for submission to the Council of the League of Nations.”

Sir George BUCHANAN agreed with the President and Professor Léon Bernard that the question was extremely delicate and troublesome. He thought that the solution suggested by Professor Léon Bernard was the only possible one in the circumstances. The Committee might have complete confidence in its President and in the President of the Office international to do the best for the Committee in the situation. At the same time, Sir George Buchanan hoped that, in future, the Committee would escape from these difficult situations by being able to have its programmes and dates so fixed that such circumstances would not arise. It seemed impossible for the Committee, after giving its approval to the vast scheme of work to be undertaken in the Far East, to complain of any internal dislocation of its normal procedure which resulted in this exceptional year. He hoped, however, that, in arranging its future meetings, the Committee would not always be confronted with exceptional circumstances.

*The draft resolution submitted by Professor Léon Bernard was adopted (Annex 10).*

The PRESIDENT and M. VELGHE thanked the Committee for the mark of confidence shown them.

451. **Work of the Conference for the Prevention of Blindness (September 1929) and of the International Anti-Trachoma League.**

Dr. JITTA wished, on behalf of Dr. Lutrario and himself, to add a few words concerning the work of the Ophthalmological Congress which had been held in September 1929 at Amsterdam, and at which Dr. Lutrario and himself had represented the Health Committee. Dr. Lutrario had followed the entire proceedings of the Congress, whereas Dr. Jitta, who had been very busy, had only been able to attend occasionally. He had, however, taken part in the entire proceedings of the last two days, when the main subjects had been the prevention of blindness and the prevention of trachoma.

Dr. Jitta had expounded the work done by the Health Committee on behalf of the blind. As he had had no printed report, he had had some difficulty, but Dr. Pantaleoni had been good enough to supply him with all the information which he himself had lacked and his exposition had been followed with the greatest attention. With regard to the prevention of trachoma, the members of the Health Committee had received a note summarising the work of Dr. Jitta and Dr. Lutrario at the International Ophthalmological Congress and in which their conclusions were formulated in the following terms :

“ Dr. Lutrario and Dr. Jitta venture to suggest to the Health Committee :

“ 1. That the report on Trachoma should be printed and distributed to the members of the Anti-Trachoma League which will shortly be holding a Congress at Geneva, as well as to all public health administrations interested in the combating of this disease.

“ 2. That the Council should be recommended to acquaint States Members with the fact that this League has been constituted and to ask them to lend full moral support to this highly humanitarian undertaking, which can only be carried on effectively by close international co-operation.

“ 3. That a member of the Health Committee should be delegated to represent the Committee on the League in order to maintain close contact with that institution.”

Dr. Jitta observed that numerous members had asked that the report in question should be printed and, unless the Health Section considered that the difficulties were insurmountable, he would venture to urge that this course should be adopted. He would also emphasise the value of the two recommendations. Trachoma was a very widespread disease. Its victims were more numerous than was thought, and in certain countries the proportion of the trachomatose was 85 to 90 per cent of the population. It must also be remembered that, not financial, but moral support was asked for the new League.

Finally, it was, Dr. Jitta thought, absolutely essential to delegate a member of the Health Committee to keep his colleagues informed of the work of this organisation.

On behalf of Dr. Lutrario and himself, he thanked the Health Committee for having instructed them to represent it at Amsterdam. He also took the opportunity to express his thanks to Dr. Pantaleoni, whose help had been very valuable.

The PRESIDENT thought that, on the contrary, it was for the Health Committee to thank Dr. Jitta and Dr. Lutrario for having represented it so ably at Amsterdam.

Dr. LUTRARIO added that the Congress had been a great success. It had been attended by 800 ophthalmologists, among them some of the most distinguished experts in the world. The Royal Family had kept in direct touch with the Congress, and the members of the Health Committee had been entertained lavishly both by the Congress and by the authorities.

Dr. RAJCHMAN, in reply to Dr. Jitta, said that, in regard to the first recommendation concerning the printing of the report on trachoma, it must be remembered that there now existed in the League a Publications Committee, which was the only body qualified to approve the publication of new monographs. The decision belonged to this Committee, and the question would be submitted to it.

As regards the second recommendation, Dr. Rajchman was certain that the Council would endorse it.

With regard to the third point, the Health Committee was obviously competent to give a reply. Dr. Rajchman did not imagine that the Committee would refuse to be represented, but pointed out that it would perhaps be better to await an official letter from the League.

Dr. JITTA recognised that the Health Committee had received no official letter. He had, however, been instructed personally and semi-officially by Dr. Wibaut to ask for the help of the Health Committee.

Sir George BUCHANAN, with reference to the first proposal, that concerning trachoma, thought that the question was very largely one of the extent to which the very large mass of information that had been collected could be conveniently compressed. It would be a matter for regret if it were lost ; but, for the convenience both of the members of the Anti-Trachoma League and of all students, it would be advisable for it to be condensed.

With reference to the note concerning the re-issue of the report on the Welfare of the Blind, he could say, speaking from the British point of view, at any rate, that the report had been found extremely useful and had been received with great approbation. It had, he believed, had a better sale in Great Britain than most of the health publications of the League. While

the idea of a re-issue after an appropriate interval was sound, he felt that the Committee was not yet in a position to decide on the exact date, since there were certain other international considerations concerning blindness in general, and the welfare of the blind in particular, which were not yet sufficiently ripe to make it desirable to decide now on the principle of republication. Unless, therefore, the Medical Director considered an immediate issue necessary, Sir George Buchanan would favour postponing the question for the consideration of the new Health Committee.

Dr. RAJCHMAN expressed the great gratitude of the Health Section to the British Ministry of Health, whose assistance, given in the form of the co-operation of various experts, had been extremely valuable. He observed that the report had had a very good sale in England and had had the rare privilege of being made the subject of a leader in the *Times*. In this connection, he was glad to inform the Health Committee that various publications by the Health Organisation, in particular the *Epidemiological Report* and the *International Health Year-Book* were selling very well, and that the *Epidemiological Report* was often out of print.

*The Committee approved the recommendations submitted by Dr. Jitta and Dr. Lutrario (Annex 10).*

#### 452. **Work of the Second Conference on the Health and Welfare of the Merchant Marine (October 1929).**

Dr. RAJCHMAN read the following note :

“ This Conference, at which the Health Organisation was represented by Professor Léon Bernard, adopted the following resolution :

“ The Conference relies on the technical value of the guiding principles of the fundamental resolutions adopted in 1926, 1928 and 1929 by the General Assembly of the International Union against Venereal Disease, and undertakes to propagate their principles.”

“ The following is one of those resolutions, which was adopted on October 9th, 1929, by the Committee of the International Union against Venereal Disease :

“ This Sub-Committee, convinced that a serious obstacle to the eradication of venereal disease from the individual seaman is the great economic sacrifice caused by long periods of unemployment ashore, which adequate treatment under present conditions entails, and considering also that, when the seaman must receive his treatment in different ports, the course of this treatment is frequently too variable and erratic to assure success, requests the Health Organisation of the League of Nations :

“ (a) In consultation with medical officers of the mercantile marine, to recommend alternative systems of treatment of venereal disease, which, whilst being effective, can meet the peculiar circumstances of seamen and be pursued with the minimum of economic hardship to the patient ;

“ (b) To endeavour to secure agreement by nations that the treatment of seamen suffering from venereal disease shall be pursued systematically in their different port clinics according to its recommendations.

“ The Sub-Committee, considering that venereal disease in a seaman often makes its first appearance when the patient is at sea, and that to recommend alternative systems of treatment of venereal disease, skilled diagnosis and treatment at the earliest possible moment are of prime importance to the outcome of disease, would urge on shipowners that they would confer great benefit on seamen by insisting on proof, if practicable by an examination, of a knowledge of modern methods of diagnosing and treating venereal disease as one of the qualifications for the post of ship's surgeon.”

M. VELGHE would confine himself to pointing out that the resolution adopted by the Committee of the International Union against Venereal Disease did not mention the Brussels Arrangement concerning treatment of seamen suffering from this disease. He did not wish to dwell on this somewhat curious omission on the part of an international conference. In his view, the Health Committee had only to take note of the resolution.

Professor Léon BERNARD recognised that M. Velghe's observation was correct. Although he had taken part in the proceedings of the Conference, he must decline any responsibility in this matter, as he had not followed the work of the Committee on Venereal Disease. The Conference had been divided into a number of sections, and he himself had been appointed Chairman of the section dealing with tuberculosis.

He urged that the merchant marine deserved the closest attention on the part of the Health Committee, both from the point of view of the dangers threatening seamen themselves and the peril which they represented to the rest of the community. They might be said to act as centres for the dissemination of the disease in ports of call. The question of the treatment of seamen was, therefore, one of great importance for the entire population of the world.

The Conference had afforded an opportunity for very interesting exchanges of views. In regard to tuberculosis, Professor Léon Bernard had drawn attention to the fact that, apart from Hamburg, no port supplied precise data of tuberculosis in the merchant marine. If

useful action were to be undertaken in this field, the situation must be known. The Committee had concluded with a recommendation for an enquiry which might perhaps be carried out with the assistance of the League.

Similarly, typhoid fever was a disease which seamen were very apt to contract in ports of call owing to the risks of unwholesome food. They then spread the disease and might cause local epidemics. The situation was exactly the same in regard to other diseases.

As the Conference was to meet again at a future date, Professor Léon Bernard thought that it would be valuable if the Health Committee could co-operate in its subsequent work and be represented there.

The PRESIDENT thanked Professor Léon Bernard and thought that it would be easy for the Health Organisation to accept this invitation.

In regard to the resolution which had just been read, he pointed out that the Commission of syphilis experts would shortly be discussing the results of the studies which had been carried out. Their attention could easily be drawn to this particular aspect of the question, and they might be asked to formulate definite conclusions in regard to treatment and the campaign against the venereal peril.

Sir George BUCHANAN asked whether Dr. Madsen could develop his idea. He had been wondering whether the actual form of venereal treatment given to the merchant marine in the centres in ports was a matter which could be usefully referred to the Commission of syphilis experts. The actual treatment to be given was, he thought, a matter involving the individual responsibility of the Governments, and one, moreover, for which they had already agreed to accept responsibility to a certain extent under the Brussels Convention. The Governments, in discharging that obligation, would naturally benefit from the work done by the Health Committee's experts in regard to the treatment of syphilis in general. If the Syphilis Commission were instructed to make special recommendations for the treatment of the mercantile marine in clinics in ports, it would be only adding one more complication to a very difficult matter.

The PRESIDENT did not fully understand the doubts expressed by Sir George Buchanan. It seemed to him that the Syphilis Commission, which had a vast body of information in its possession, would be in a position to pronounce on the best treatment to be employed. It must be remembered that there was not merely one single treatment for syphilis, but combinations of different treatments. The Commission would accordingly be perfectly qualified to indicate the therapeutic combination which it would be best to adopt for the merchant marine. Moreover, this would, he thought, cause very little trouble to the Commission of experts.

Sir George BUCHANAN had no objection to the resolution of the Conference being brought to the notice of the experts. He was not, however, entirely convinced by Dr. Madsen's argument. Take the case of the ports in England. The British Government had established centres in the big ports, and a treatment which it believed to be the best that could be provided. The entire system had been placed under the central authority, the Ministry of Health, and was carried out in accordance with the provisions of the Brussels Convention. If the Syphilis Commission provided any information which was of value in regard to improved methods of treatment, the Ministry of Health would, of course, consider how it could best be used in the clinics in ports, and would do so in fulfilment of its obligations under the international Convention. It did not seem necessary to have recommendations from the experts as to the special treatment of seamen. That was the task of the Ministry of Health on the basis of all available information, applied in accordance with the Brussels Convention.

The PRESIDENT agreed that it was obviously for the Governments to take the final decision, but they might be assisted by the recommendations of experts.

M. VELGHE thought it unnecessary to continue the discussion at length, since, in his view, the resolution of the second Conference had been adopted without sufficient consideration. Nevertheless, the Health Committee was asked to take various steps, and M. Velghe did not think it would be expedient to reply by a refusal. In these circumstances, it would, he thought, be best to instruct the Syphilis Commission, which was the best qualified for doing so, to examine the question of therapeutic treatment.

The PRESIDENT asked Dr. Park, who had followed the work of the second Conference on the Health and Welfare of the Merchant Marine, to address the Committee on the subject.

Dr. PARK said that the attitude of the members of the Conference had been perfectly clear. They had recognised the value of the Brussels Convention, but had considered that, by passing their resolution, they could supplement its value. Colonel Harrison had considered that, as the conditions of the treatment for seamen differed from those applying to the other parts of the population, it would be valuable if the resolution could be referred to the Commission of Experts of the Health Committee. Sir George Buchanan might, therefore, rest assured that Colonel Harrison realised the necessity of leaving it to the various nations to put the actual treatment into effect, but that it would be valuable to have from the experts some standard which could be applied on shore and also, if possible, on board ship.



Professor NOCHT pointed out that the position of seamen was a quite peculiar one, and he doubted whether the Commission of experts was fully acquainted with the subject. If, therefore, the question were referred to the Commission, it would perhaps be necessary to provide for very close co-operation with naval surgeons and port doctors, who possessed the special knowledge required.

Sir George BUCHANAN said that Dr. Park's explanation had made the matter much clearer, and he had no objection to the resolution being referred to the special Commission. He was sure that the experts would pay all due attention to the question of Government responsibility and the international Agreement.

*The Committee decided to take note of the resolution transmitted by the Committee of the International Union against Venereal Disease and to take the necessary action.*

**453. Question of the Collaboration of the Health Organisation with the International Dental Federation.**

Dr. RAJCHMAN read the following note :

“ The International Dental Federation, which is established at Geneva, has, through its President, requested the ‘ moral support ’ of the Health Organisation.

“ Questioned on the subject of the aims of the International Dental Federation, its President replied, on April 17th, 1929, that the Executive Council of the Federation has requested all international health committees to give *moral* assistance in its campaign against dental diseases. The Executive Council believed that the League of Nations Health Committee should be informed of its work and that, reciprocally, the moral support of the Health Committee would be of value to that work.

“ The President had, therefore, forwarded a number of copies of the report on the work of the Dental Federation since its inception, and had proposed that the Health Committee should receive each year the report of the International Dental Federation, and at the same time requested that the Committee should state ‘ whether it considers that dental diseases should be combated as energetically as other diseases ’.

“ Dr. Jitta belongs to this Federation, which elected him an honorary Chairman of its Health Commission. He is thus in a position to ensure contact between the International Dental Federation and the Health Committee.”

Dr. JITTA had nothing to add to the note which had just been read. The title of honorary Chairman, which had been conferred on him, was a purely honorary title, and he was unable to give any definite information on the activity of the International Dental Federation. He could, however, say that the Federation did a great deal of work and was concerned, in particular, with the prophylaxis of dental diseases. He thought, therefore, that the Health Committee might with advantage take interest in this organisation.

*The Committee accepted the proposals of the International Dental Federation.*

**454. Invitations received by the Health Committee to be represented at Various Congresses.**

**1. Congress of the Royal Sanitary Institute (Margate, July 21st, 1930).**

*The Committee requested Sir George Buchanan to represent it at this Congress.*

**2. Second International Malaria Congress (Algiers, May 21st, 1930).**

Dr. RAJCHMAN reminded the Committee that, at its fourteenth session, it had decided to postpone taking a decision concerning representation at this Congress. He proposed that the Committee should give an affirmative reply on the principle of representation, and that it should be left to the Malaria Commission to settle the details.

*This proposal was adopted.*

**3. Congress of the Royal Institute of Public Health (Portsmouth, June 4th to 9th, 1930).**

Dr. RAJCHMAN proposed that, in conformity with precedents, the Committee should send no representative to this Congress.

*This proposal was adopted.*

**4. South American Serological Congress (Montevideo, September 1930).**

Dr. RAJCHMAN reminded the Committee that it had been invited to designate a representative to preside over the South American Serological Congress, which was to be held at Montevideo. He underlined the importance of this invitation.

Dr. OLSEN explained that Dr. Scaltritti, who was a very well-known serologist at Montevideo, had taken part in the Copenhagen Conference on the serodiagnosis of syphilis. Being impressed by the results obtained, he had proposed to organise a similar Conference in South America. He had accordingly invited a number of South American experts, who

would be asked to make comparisons, with the object of arriving at results similar to those which had been obtained at Copenhagen. He had thought that it would be very useful if the presidency of the Conference were to be entrusted to a fully competent person designated by the Health Organisation.

The PRESIDENT, who had had long experience of Conferences of this kind, pointed out that the entire success of a congress depended on the preparatory organisation, which was a very difficult task. It would certainly be very advantageous if the Health Committee could be represented at the Congress, and he thought that Professor Jadassohn might be requested to accept this mission.

Dr. RAJCHMAN observed that this was the first occasion on which a Latin-American Congress had asked the Health Organisation to appoint a President and to be responsible for the actual conduct of the proceedings. It was, he thought, impossible to refuse, since the matter involved the reputation in Latin America of a whole series of studies which had been undertaken by the Health Organisation. The choice of the representative might be left to the President of the Committee. He suggested, however, that an expert in serology might perhaps be chosen to assist the representative appointed to take the Chair. If the Health Committee accepted this proposal in principle, he suggested that it should leave the matter to the President.

*Agreed.*

The PRESIDENT said that he had been asked whether the Health Organisation could, in connection with a conference on syphilology to be held in Copenhagen in August 1930, arrange for a short meeting, of one or two days, for the purpose of comparing certain serological methods. He would be glad if this invitation could be accepted.

*This proposal was adopted.*

##### 5. *First International Congress on Microbiology (Paris, July 20th to 25th, 1930).*

Dr. RAJCHMAN reminded the Committee that the Secretary-General of this Congress had invited the Health Committee to hold one or more meetings of its Commissions during the proceedings of the Congress. He thought that the Commission on the Standardisation of Sera was the only one of which the work was in any way analogous to the programme of work of the Congress.

The PRESIDENT pointed out that there were certain similar questions in other domains. The Health Committee had undertaken work connected with the classification of blood groups. At present, the standards employed were not comparable, and it was for the Health Committee to endeavour to improve the present position. The Copenhagen serum had been sent to various scientists with very precise technical instructions for the purpose of comparative study. The conclusions which had been received differed widely, and the President did not for the moment see how they could be reduced to a common denominator. It might, therefore, he thought, be useful, after the Congress, to have a meeting in Paris, for one or two days, of the experts concerned, who could then compare their experiments and even make studies with blood specimens. In this way it would be seen whether the experts would be able, by acting together, to obtain more concordant results.

It would similarly be useful to have meetings of other experts, in particular, those dealing with the standardisation of the toxin employed against diphtheria.

Professor Léon BERNARD drew attention to the importance of the question of blood groups. He had noted with regret that the work of the Copenhagen Conference had not made sufficient headway among hæmatologists. In his view, it was important to unify the nomenclature, and he warmly associated himself with the President's suggestion.

Professor CANTACUZÈNE noted, like his colleagues, the uncertainty prevalent in this domain. He pointed out that the Congress on Bacteriology would meet in two years' time, and it would be advantageous if the question of the serology of blood groups could be placed on the agenda of the Congress.

Sir George BUCHANAN considered that the proposal which had been made was a very interesting one. Nevertheless, he felt some apprehension at seeing the Committee fix the dates of meetings at which very important, if subsidiary, questions were to be discussed, regardless of the date on which the new Health Committee would meet. All arrangements should be subordinated to the date of the session of the new Committee.

Dr. RAJCHMAN explained that the meetings in question would consist only of experts and not of members of the Committee. The President, who would attend them, would certainly be able to fix the dates in a satisfactory manner.

Professor PITTALUGA said that he had received from Copenhagen the standards to which the President had referred. He had undertaken certain enquiries and had made a point of having studies made in Western Africa as well. He would be in Paris for the Congress on Microbiology and would give an account of the results obtained.

*The President's proposals were adopted.*

6. *International Union for the Prevention of Tuberculosis.*

Professor Léon BERNARD said that he had noted with surprise that the list did not include an invitation from the International Union for the Prevention of Tuberculosis. He apologised for the omission, being himself largely responsible for the delay in the despatch of the invitation, which he would now give to the Committee by word of mouth.

The International Union for the Prevention of Tuberculosis would meet at Oslo on August 12th, 1930, and invited the Health Committee to send a representative.

*The Health Committee requested Professor Léon Bernard to represent it at this meeting.*

455. **Opium : Application of Articles 8 and 10 of the Opium Convention of 1925 : Adoption of Resolutions.**

Dr. CARRIÈRE read the following draft resolutions submitted by the Opium Commission :

A.

“ The Health Committee adopts all the conclusions of the report of the Office international d’Hygiène publique, on the application of Article 8 of the Opium Convention, signed at Geneva on February 19th, 1925, to the preparations proposed by the Governments of British India, Bulgaria, France, Germany, Great Britain, the Irish Free State, Poland and Roumania, as they appear in document C.H. 843.”

B.

“ The Health Committee decides to submit to the Permanent Committee of the Office international d’Hygiène publique, for opinion and report, according to the procedure laid down by Article 8 of the Geneva International Opium Convention, the two lists of preparations proposed by the German and Swiss Governments as they appear in document C.H. 850.”

C.

“ The Health Committee considers that preparations which contain esters of morphine di-hydro-oxycodone, di-hydro-codeine (dicodide), di-hydro-morphine (dilaudide), should be treated in the same manner as those which contain diacetyl morphine ; that is to say, they should come within the scope of the Convention, whatever the percentage of narcotic substances contained may be.

“ It also considers that all salts of these substances should come within the scope of the Convention according to the provisions of Article 10 of the said Convention.”

*The draft resolutions were adopted unanimously (Annex 10).*

456. **Appointment of a Permanent Secretariat for the Unification of Pharmacopœias : Adoption of a Resolution.**

Dr. RAJCHMAN read the following draft resolution :

“ The Health Committee :

“ Having studied, in conformity with the resolution of the Council, dated August 30th, 1929, the question of the establishment of an International Organisation for the Unification of Pharmacopœias, composed of a permanent secretariat and of international committees ;

“ Is of opinion, after having discussed the question in detail, that the study should be continued ;

“ Decides to place it on the agenda of the next session ; and

“ Requests the Medical Director to furnish supplementary information in due course.”

*The draft resolution was adopted, with certain modifications of form (Annex 10).*

457. **Budget Estimates for 1931.**

M. VELGHE drew the attention of the members of the Committee to the table which had been placed before them with regard to the provisional budget estimates for 1931. One column of the table showed the budget furnished by the League and another that furnished by the Rockefeller subsidies. There was no change to be noted in the second table.

The budget furnished by the League showed, as compared with the 1930 estimates, an increase of about 190,000 francs. This aggregate increase was divided among the following items : Salaries of the Health Section, approximately 48,000 frs.—balanced for the greater part by a reduction of 40,000 francs in Chapter II—Travelling and Removal Expenses of the Secretariat, 2,000 frs. ; Miscellaneous Expenses and Unforeseen, 3,000 frs. ; General Printing and Documentation, 49,600 frs. ; Cables and Telegrams, 17,500 frs. ; Contribution to the Singapore Bureau, 60,000 frs. ; Miscellaneous Enquiries—that was to say, in particular, the despatch of a mission to China—50,000 frs. ; and, finally, a small increase of 550 frs. in the expenditure connected with the establishment of a system of liaison between the various national health services.

M. Velghe observed that the budget estimates were still low, but they exceeded the fateful figure of one million, with which all the members of the Committee were familiar. In the past year, however, the Assembly had decided that this figure might be exceeded in 1930. The cap had thus been doubled, and M. Velghe did not think that any difficulty need be anticipated in regard to the proposals which had been made by the Bureau. These proposals were contained in the following draft resolution, concerning which M. Velghe was prepared to give any explanations which might be required.

“ The Health Committee :

“ In view of the fact that the Assembly, at its tenth session, agreed that the increase in the budget of the Health Organisation which will result from the carrying out of new undertakings in overseas countries must be regarded, even if its details and its purposes vary from time to time, as more or less recurrent, so that the total budget can no longer be considered as stabilised at one million gold francs, although the maximum limit set some years ago could be regarded as still applicable to the general work of the Organisation;

“ After having studied the report on the Medical Director's mission in China, which furnishes the first basis on which it is possible to establish definite estimates, and having also examined the situation created by the development of the Eastern Bureau at Singapore ;

“ Is of opinion that an additional sum of approximately 190,000 francs is necessary :

“ 1. In view of the continuation of the undertakings in the Far East during the year 1931, which will also necessitate an increase in the credits for printing and cables ; and

“ 2. To cover the expenses of the Eastern Bureau at Singapore over and above the contributions given by various Far-Eastern Governments. .

“ The Health Committee points out that, in default of this increase, it will be impossible to find the sum required out of the credit of one million gold francs reserved for the general work of the Health Organisation in countries other than those of the Far East.”

Dr. LUTRARIO referred to the question of the aggregate credits in the budget. He fully realised the necessity of leaving it to the responsible heads to distribute these credits according to circumstances. He wished, however, to draw attention to the great advantage there would be in having more precise indications and a distribution of the funds according to the work contemplated. He referred, in particular, to the credit of 200,000 francs under the heading “ Technical Committees and Sub-Committees, Conferences, Missions, Work of Experts, Collective and Individual Studies ”. He understood that this credit consisted of the funds allocated to the various studies undertaken by the Commissions. It would be valuable for each Commission to know what were the credits allocated to it for the year. The Chairmen of the Commissions often received requests to study one question or another, and it was generally difficult for them to put their case to the Medical Director when they did not know the situation with regard to the funds at the disposal of each Commission.

Dr. RAJCHMAN hoped that Dr. Lutrario would not insist on a more detailed distribution of credits. He might, in reply, confine himself to purely formal grounds by pointing out that the question of disbursing the credits under the various items was not within the purview of the Health Committee. That question came under the jurisdiction of the Treasury and of the Commission responsible for financial supervision. He preferred, however, to appeal to Dr. Lutrario's administrative experience. The budgetary questions were less difficult to solve in the national administrations than in an organisation like the Secretariat of the League, since the national administrations could always ask for supplementary votes during the year. That course, on the contrary, was impossible for the Secretariat.

Furthermore, the 1931 budget estimates had to be framed in March 1930. It was often difficult to estimate in advance what exactly would be the work of one Commission or another. It was therefore necessary to frame an aggregate estimate on the basis of the expenditure incurred during the previous year. The funds thus estimated were employed as circumstances dictated. Dr. Rajchman wished, however, to remind Dr. Lutrario that it was not the Medical Director who distributed the credits which had been appropriated, but that the Bureau held a meeting for the purpose of allocating among the various Commissions the funds placed at the Health Organisation's disposal.

In conclusion, it must be remembered that, in the Secretariat of the League, the only authority in regard to expenditure was the Secretary-General.

Sir George BUCHANAN was grateful to the Bureau and the Medical Director for the trouble which they had taken to produce the budget at such short notice. He was prepared to support the proposed increases in the various items, and the manner in which they had been formulated. He would venture, however, to propose that the final words of the resolution “ in countries other than those of the Far East ” should be deleted, as he thought that the Health Organisation covered those countries. This, however, was a mere question of phraseology.

He reverted to his observations that the Committee should endeavour to get back to its normal sessions and procedure. During the present year exceptional circumstances had arisen, and the budget had, therefore, to be considered before the Committee's programme had been finally settled. The new Committee, when it met, might change that programme, and it must, therefore, be possible to make the necessary adjustment in the budget. The point raised by Dr. Lutrario arose in connection with the new programme. It was, undoubtedly,

of advantage to the Chairman of a Commission to know the amount of money available for its work. Such information had generally been supplied in the past, but, if it could be made a little more definite, he would be grateful.

Dr. RAJCHMAN replied that satisfaction could be given to the Chairmen of Commissions without much difficulty, and without having to make any change in the arrangement of the budget. This matter concerned the internal organisation.

M. VELGHE, in reply to Dr. Lutrario and Sir George Buchanan, said that, when the Bureau distributed the credits, the amount allocated to each Commission was notified to the Chairman. The figures were, moreover, determined in agreement with the latter, but obviously it was sometimes necessary to reduce the amounts requested.

In conclusion, M. Velghe pointed out that the Health Organisation had a million francs for its general work, and that the credits in excess of this figure were earmarked for the special work approved by the Assembly.

Professor PITTALUGA agreed with M. Velghe. He thought that the Health Section might perhaps be hampered by an over-precise distinction between the votes for the general work of the Organisation and the votes allocated for new undertakings.

In regard to the credit of 200,000 francs for the Technical Commissions and Sub-Commissions, etc., he pointed out that the last year for which final accounts were available was 1929. The estimate for that year had been 250,000 francs and the total effective expenditure had exceeded 355,000 francs. The votes, which had even then been higher than the estimates for 1931 had accordingly been exceeded by more than 100,000 francs. He asked whether the Medical Director could give any explanation on this point.

Dr. RAJCHMAN did not think it possible for him to go into the details of all budgetary questions without unduly prolonging the discussions of the Committee. He would confine himself to pointing out to Professor Pittaluga that the sum of 355,000 francs spent in 1929 included the travelling expenses of the Malaria Commission to India and those of the work of the Commission which had been sent to Greece.

*The draft resolution was adopted with the amendment proposed by Sir George Buchanan and M. Velghe (Annex 10).*

#### 458. Close of the Session.

The PRESIDENT, before closing the session, observed that this was the last meeting of the present Committee. The Committee had, he thought, every reason for being satisfied with the work accomplished and the progress achieved during the last three years. The marks of confidence received from all countries were constantly increasing in number, and the Health Organisation had become a worldwide organisation to which all countries, the smallest as well as the largest, applied for advice. At the Assembly itself, the atmosphere had changed completely, and the work of the Organisation had been appreciated at its full value.

The President thanked his colleagues and, in particular, M. Velghe, and likewise the Chairmen and members of the various Commissions, for the valuable help they had given to the general work of the Health Organisation. The President's own task had been greatly facilitated by the friendship which all his colleagues had invariably shown him, but he wished to say that the chief part in the success of the Health Organisation must be ascribed to the Health Section and, more particularly, to the Medical Director, to whom he was glad to offer the Committee's warmest congratulations.

Dr. CHODZKO, on behalf of his colleagues on the Committee, paid a tribute to the President, for it was certainly owing to the great knowledge and enlightened spirit of Dr. Madsen that the Health Organisation had been able to achieve such brilliant results.

He wished, too, to offer his congratulations to the Medical Director and the entire Health Section.

The PRESIDENT declared closed the fifteenth session of the Health Committee.

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ANNEX 1.

AGENDA OF THE FIFTEENTH SESSION OF THE HEALTH COMMITTEE.

1. Assembly Resolutions and Council Decisions.
2. The Report of the Medical Director upon the Mission in China.
3. Note of the Medical Director on the Work of the Health Organisation since the Last Session of the Committee.
4. Opium Commission :
  - (a) Opinion transmitted by the Permanent Committee of the Office international d'Hygiène publique, in its Letter of July 17th, 1929, regarding the Application of Article 8 of the International Opium Convention of February 19th, 1925, to a Number of Preparations.
  - (b) Opinion transmitted by the Permanent Committee of the Office international d'Hygiène publique in its Letter of July 17th, 1929, regarding the Application of Article 10 of the International Opium Convention of February 19th, 1925, to Preparations containing Eucodal, Dicodide, Dilaudide, Benzoylmorphine or other Esters of Morphine.
  - (c) Application of Article 10 of the International Opium Convention : Proposal by Professor Knaffl-Lenz that Acedicon should be brought under the Convention.
5. Miscellaneous.

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ANNEX 2.

REPORT OF THE OPIUM COMMISSION ON THE APPLICATION OF ARTICLES 8 AND 10 OF THE GENEVA CONVENTION AND ON THE REQUESTS FOR TECHNICAL OPINION SUBMITTED BY THE SOCIAL SECTION AND THE PERMANENT CENTRAL OPIUM BOARD.

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The Commission, at its meeting held at Geneva on March 7th, 1930, examined certain questions relating to the application of Articles 8 and 10 of the Geneva Convention.

*Article 8.* — In the first place note was taken of the opinion previously given by the Committee of the Office international d'Hygiène publique concerning various preparations in respect of which some Governments had requested the benefit of the exemption provided for in Article 8. This opinion was given in document C.H.843.

The Commission unreservedly concurred in this opinion and proposes its adoption by the Health Committee.

Attention must be drawn to one point. When the Committee of Experts of the Office first undertook to draw up the list of preparations which were to benefit under the provisions of Article 8, it decided not to admit groups but to mention each preparation by name. An exception to this rule seemed, however, to have been made with regard to the preparations proposed by the Swedish Government. Relying on this precedent, the British Government requested similar treatment for certain preparations it had proposed.

The Committee of Experts, after having examined the question, observed that, in the case of the Swedish preparations, it was a question of *dilutions* of preparations, already exempted from the provisions of the Convention by decision of the Health Committee, in other preparations and *not of new preparations*; it also stated that such mixtures did not, *a fortiori*, come within the scope of the Convention, provided that the preparations with which the preparation already exempted from the provisions of the Convention is associated did not contain any drug which falls within the scope of the Convention.

As the preparations enumerated in the British list fulfil this condition, they may be given the benefit of the exemption provided for in Article 8 of the Convention.

In this particular, as in all others, the Commission adopted the opinion of the Committee of Experts.

It should also be noted that the Commission, in reply to a remark by one of its members, agreed that the Indonal Bürgi tablets appearing on the Austrian Government's list did not, under any circumstances, fall within the provisions of the Convention, which was not concerned with preparations containing galenic preparations of Indian hemp, but only the galenic preparations themselves.

The Health Committee has received from the German and Swiss Governments further lists of preparations (document C.H.850, Annex 4) in respect of which they request exemption under Article 8. The Commission proposes that the Health Committee should refer these lists for opinion and report to the Office international d'Hygiène publique.

*Article 10.* — Certain States, on the recommendation of the Health Committee, have already made eucodal, dicodide, dilaudide and the esters (acylate derivatives, ether-salts) of morphine subject to the measures of control provided by the Geneva Convention. The British Government's request necessitated an enquiry as to whether preparations made from these substances should be subjected to the same control. The Committee of the Office replied in the affirmative; such preparations ought to be subject to control whatever their narcotic content. The Commission, having duly noted this opinion, proposes its adoption by the Health Committee (document C.H.852, Annex 5).

The same question subsequently arose in connection with the salts of these same substances. In accordance with the agreement reached between the Office and the Health Organisation concerning questions arising out of the application of Article 10, the Opium Committee of the Office, being thereby authorised to take decisions on behalf of the Permanent Committee, decided, on the strength of the Committee of Experts' opinion, that the salts should be submitted to the same measures of control as the substances and the preparations (Annex 6). The Commission likewise proposes the adoption of this opinion by the Health Committee. It should be added that a certain number of States already subject the preparations and salts of the substances in question to measures of control.

In order to avoid any misunderstanding in regard to the point mentioned at the top of page 2 of document C.H.852—*i.e.*, the possible elimination of letter (*d*) of Article 4 of the Geneva Convention—it should be noted that this merely refers to a recommendation put forward by the Committee of Experts of the Office, and could not in any case be considered until the revision of the 1925 Convention is taken in hand.

In view of the foregoing considerations, the Sub-Committee proposes that the Health Committee should adopt the three following resolutions :

I.

“ The Health Committee adopts all the conclusions contained in the report of the Office international d'Hygiène publique concerning the application of Article 8 of the Opium Convention signed at Geneva on February 19th, 1925, to the preparations proposed by the Governments of France, Germany, British India, Roumania, Bulgaria, the Irish Free State, Poland and Great Britain, as given in document C.H.843 (Annex 3).”

II.

“ The Health Committee decides to refer to the Permanent Committee of the Office international d'Hygiène publique for advice and report in accordance with the procedure established by Article 8 of the International Opium Convention of Geneva the two lists of preparations proposed by the Governments of Germany and Switzerland, as given in document C.H.850 (Annex 4).”

III.

“ The Health Committee is of opinion that preparations which contain either esters (acylate derivatives, ether-salts) of morphine, or dihydroxycodine, dihydrocodeine (dicodide), or dihydromorphine (dilaudide), should be subject to the same treatment as those containing diacetylmorphine; that is to say, that they should fall within the scope of the Convention, whatever their narcotic content (document C.H.852, Annex 5).

“ It is likewise of opinion that all the salts of the substances mentioned above should fall within the scope of the Convention, in accordance with the provisions of Article 10 of the said Convention.”

The following two questions have been submitted to the Health Committee by the Social Section and the Permanent Central Opium Board respectively :

(a) Should synthetic morphine be treated in the same manner as natural morphine, and subjected to control?

(b) Would it be possible to produce eucodal and dicodide commercially from morphine and codeine? (Document C.H.851, Annex 7.)

These two questions were submitted unofficially to the Committee of Experts of the Office during one of their meetings. This Committee considered that the definition of morphine furnished by the Convention—*i.e.*, “ Morphine means the principal alkaloid of opium, having the chemical formula  $C_{17}H_{19}NO_3$  ”—covered synthetic morphine, the initial material used for the manufacture of this substance being of no importance so far as the Convention is concerned. It should be added that synthetic morphine has not yet been placed on the market.

In regard to the second question, the Committee of Experts considered, that for the present, there was no likelihood of eucodal and dicodide being produced commercially from morphine and codeine, at all events not in so far as the legitimate traffic was concerned, because its preparation from thebaine was far less expensive than from codeine. However, as the price of thebaine now shows a tendency to rise and that of codeine to fall, it is not impossible

that the situation may one day be reversed. On the other hand, it must not be forgotten that, in the illicit traffic, the question of the cost of manufacture only plays a minor part.

The Health Organisation further requested Professor Knaff-Lenz to furnish a technical report on this question, which has been annexed to document C.H.851.

The Commission proposes that the Health Committee should circulate the two replies to those concerned.

The Commission finally informs the Health Committee that a report from Professor Knaff-Lenz (Annex 8) on the opportunity of placing acedicon under the Convention was referred for advice and report to the Permanent Committee of the Office international d'Hygiène publique.

C.H.843.

**ANNEX 3.**

**APPLICATION OF ARTICLE 8 OF THE INTERNATIONAL OPIUM CONVENTION,  
SIGNED AT GENEVA ON FEBRUARY 19TH, 1925.**

**REPORT FROM THE OFFICE INTERNATIONAL D'HYGIÈNE PUBLIQUE.**

**I. Preparations referred to the Office international d'Hygiène publique for Advice and Report by the Health Committee at its Thirteenth Session (October 1928).**

At its extraordinary session in May 1929, the Office international d'Hygiène publique reconsidered these preparations and unanimously adopted the following conclusions of its Committee of Experts :

**1. Proposal of the French Government.**

This proposal refers to one preparation only :

*Emplastrum Opii* :

Extrait d'Opium . . . . .	25 grammes
Elémi purifié . . . . .	25 "
Emplâtre diachylon gommé . . . . .	50 "

*Decision.* — The formula is precise ; the preparation comes under the Convention, but, in view of its composition, the provisions of the latter need not apply.

**2. Proposals of the German Government.**

*Pulvis ipecacuanhæ opiatius.* — German Pharmacopœia 6 (Pulvis Doveri P.I.) and all other preparations of opium or drugs with a content of not less than 10 per cent of ipecacuanha root.

*Decision.* — The P. I. formula is precise ; the preparation comes under the Convention, but, in view of its composition, might be exempted from the operation of its provisions.

As regards the German Government's proposal not to apply the provisions of the Convention to any other preparations of opium or narcotic drugs with a content of not less than 10 per cent of ipecacuanha powder, the Committee does not think this acceptable, as it refers to a group of preparations, and the Committee has already decided in principle not to admit groups but to consider each preparation separately. Moreover, such a decision as that suggested by the German Government might lead to abuse, as there would be no exact specification of the narcotic content of preparations which might thus contain up to 90 per cent of opium powder.

**3. Proposals of the Indian Government.**

*Dover's Powder* (Pulvis Ipecacuanhæ Compositus, Compound Powder of Ipecacuanha) :

Ipecacuanha Root, in powder . . . . .	10 grammes
Opium, in powder . . . . .	10 "
Potassium Sulphate, in powder . . . . .	80 "

(Extract from the British Pharmacopœia 1914, page 319.)

*Decision.* — Formula sufficiently precise ; the preparation comes under the Convention, but, in view of its composition, might be exempted from the operation of the latter's provisions.

*Unguentum Gallæ cum Opio* (Gall and Opium Ointment) :

Gall ointment . . . . .	92.5 grammes
Opium, in powder . . . . .	7.5 "

(Extract from the British Pharmacopœia 1914, page 440.)

*Decision.* — Formula sufficiently precise ; the preparation comes under the Convention, but, in view of its composition, might be exempted from the operation of the latter's provisions.



*Chlorodyne of the British Pharmacopœia 1885.*

*Tinctura Chloroformi et Morphinae* (Tincture of Chloroform and Morphine). Contains in a 10-minim dose :

Chloroform, 1 fluid ounce . . . . .	1 1/4 minim
Ether, 2 fluid drachms . . . . .	1/3 "
Rectified Spirit, 1 fluid ounce . . . . .	1 1/4 "
Hydrochlorate of Morphine, 8 grains . . . . .	1/48 grain
Diluted Hydrocyanic Acid, 1/2 fluid ounce . . . . .	5/8 minim
Oil of Peppermint, 4 minims . . . . .	1/80 "
Liquid Extract of Liquorice, 1 fluid ounce . . . . .	1 1/4 "
Treacle, 1 fluid ounce . . . . .	
Syrup of sufficiency (to 8 fluid ounces). . . . .	

(Extract from the British Pharmacopœia 1885, page 414.)

*Decision.* — This preparation was withdrawn from the Indian Government's list as the formula, following the 1885 edition of the British Pharmacopœia, contains only 0.17 per cent morphine, or less than the margin allowed by the Convention. The Committee, however, points out that in the 1914 British Pharmacopœia the formula for chlorodyne gives a 0.38 per cent morphine content ; confusion may therefore result from the existence simultaneously of two preparations under the same name, one subject and the other not subject to the provisions of the Convention.

4. *Proposals of the Roumanian Government.*

*Elixir Parégorique* (*Tinctura Opii Benzoica*) :

Acidum benzoicum . . . . .	5 grammes
Camphora . . . . .	5 "
Ol. anisi . . . . .	5 "
<i>Tinctura Opii</i> . . . . .	50 "
Sp. dilut. 70% . . . . .	935 "

*Decision.* — Formula precise ; the preparation does not come under the Convention owing to its very low morphine content.

*Pulvis Doveri* (*Pulvis Opii et Ipecacuanhæ Com.*) :

Radix Ipeca. pulv. . . . .	1 gramme
<i>Pulvis Opii</i> . . . . .	1 "
Sacchar. Lactis . . . . .	8 "

*Decision.* — Formula precise ; the preparation comes under the Convention, but, in view of its composition, might be exempted from the latter's operation.

*Syrupus Diacodi* (*Syrupus Opii Dilutus*) :

Syr. simplex . . . . .	75 grammes
<i>Syrupus Opii</i> . . . . .	25 "

*Decision.* — Formula precise ; the preparation does not come under the Convention owing to its very low morphine content.

*Syrupus Opii* :

Extractum Opii . . . . .	2 grammes
Aqua . . . . .	8 "
<i>Syrupus simplex</i> . . . . .	990 "

*Decision.* — Formula precise ; the preparation does not come under the Convention owing to its very low morphine content.

5. *Proposals of the Bulgarian Government.*

*Pulvis Doveri* :

Radix Ipecacuanhæ pulverata . . . . .	1 gramme
Opium pulveratum (10% Morph.) . . . . .	1 "
Kalium Sulphuricum pulveratum . . . . .	8 "

*Decision.* — Formula precise ; the preparation comes under the Convention, but, in view of its composition, might be exempted.

*Tinctura Opii Benzoica* :

Opium pulveratum . . . . .	1 gramme
Oleum anisi . . . . .	1 "
Camphora . . . . .	2 "
Acidum benzoicum . . . . .	4 "
Spiritus vini 70% . . . . .	192 "

*Decision.* — Formula precise ; the preparation does not come under the Convention owing to its very low morphine content.

6. *Proposals of the Irish Free State.*

*Pulvis Ipecacuanhæ Compositus* (Compound Powder of Ipecacuanha ; synonym : Dover's Powder) :

Ipecacuanha Root, in powder . . . . .	10 grammes
Opium, in powder . . . . .	10 „
Potassium Sulphate, in powder . . . . .	80 „

*Decision.* — Formula precise ; the preparation comes under the Convention, but, in view of its composition, might be exempted.

*Pilula Ipecacuanhæ cum Scilla* (Pill of Ipecacuanha with Squill) :

Compound Powder of Ipecacuanha . . . . .	50 grammes
Squill, in powder . . . . .	10 „
Ammoniacum, in powder . . . . .	10 „
Syrup of Glucose . . . . .	a sufficient quantity

*Decision.* — Formula precise ; the preparation comes under the Convention, but, in view of its composition, might be exempted.

*Pulvis Kino Compositus* (Compound Powder of Kino) :

Kino, in powder . . . . .	75 grammes
Opium, in powder . . . . .	5 „
Cinnamon Bark, in powder . . . . .	20 „

*Decision.* — Formula precise ; the preparation comes under the Convention, but, in view of its composition, might be exempted.

*Tinctura Camphoræ Composita* (Compound Tincture of Camphor ; synonyms : Paregoric, Paregoric Elixir) :

Tincture of Opium . . . . .	50 millilitres
Benzoic Acid . . . . .	5 grammes
Camphor . . . . .	3 „
Oil of Anise . . . . .	3 millilitres
Alcohol (60%) sufficient to produce . . . . .	1,000 „

*Decision.* — Formula precise ; the preparation does not come under the Convention.

*Tinctura Opii Ammoniata* (Ammoniated Tincture of Opium) :

Tincture of Opium . . . . .	100 millilitres
Benzoic Acid . . . . .	20 grammes
Oil of Anise . . . . .	5 millilitres
Solution of Ammonia . . . . .	200 „
Alcohol (90%) sufficient to produce . . . . .	1,000 „

*Decision.* — Formula precise ; the preparation does not come under the Convention.

*Unguentum Gallæ cum Opio* (Gall and Opium ointment) :

Gall Ointment . . . . .	92.5 grammes
Opium, in powder . . . . .	7.5 „

*Decision.* — Formula sufficiently precise ; the preparation comes under the Convention, but, in view of its composition, might be exempted.

7. *Proposals of the Austrian Government.*

*Tablets of Indonal Bürgi:*

One 0.50 gramme tablet contains :

Extract. Cannabis indicæ . . . . .	0.025 gramme
Acid. diæthyl barbitur . . . . .	0.25 „

the remainder being composed of nondescript material with a covering of chocolate.

*Decision.* — Formula precise ; the preparation comes under the Convention, but, in view of its content of acid diæthyl barbitur, might be exempted.

*Digimorval tablets:*

Morphine . . . . .	0.005
Pulv. fol. Digit. . . . .	
Menthol. Valerianic . . . . .	

This preparation was withdrawn.

8. *Proposals of the Polish Government.*

*Emplastrum Opii:*

Elemi. . . . .	8
Terebinthinæ communis . . . . .	15
Ceræ flavæ . . . . .	5
Olibani pulverati. . . . .	8
Benzoës pulveratæ . . . . .	4
Opii pulverati . . . . .	2
Balsami peruviani . . . . .	1

*Decision.* — Formula precise; the preparation comes under the Convention, but, in view of its composition, might be exempted.

Two of the preparations proposed by the German Government :

*Solutions of Morphine* (or Eucodal) and of *Scopolamine* (or Atropin), sterilised, in ampoules, having a maximum content of 2 per cent morphine (or eucodal) salts and a minimum content of 0.05 per cent of scopolamine (or atropin) salts (maximum content per ampoule : 1.1 c.c.); similarly, tablets, lozenges, pastilles and the like, containing the same substances in corresponding proportions, each tablet, etc., being intended for the preparation of a 1 c.c. solution; and

*Cocaine and Atropin Tablets* weighing 0.0036 gramme, each containing not more than 0.003 gramme of cocaine salts and not less than 0.003 gramme of atropin salts,

have been referred by the Office to the Committee of Experts for further examination.

II. *Groups of Preparations proposed by the British Government.*

Among the preparations on the first list of exemptions submitted by the British Government there were the following three groups of preparations :

(a) Mixtures of *Dover's Powder* with *mercury* and *chalk*, *aspirin*, *phenacetin*, *quinine* and its salts and *sodium bicarbonate*.

(b) *Linimentum opii B.P.* and *Linimentum opii ammon. B.P.C.*, if mixed with any other British Pharmacopœia or British Pharmaceutical Codex liniment.

(c) *Ung. Gallæ c. opio., B.P.*, *Ung. Gallæ Co., B.P.C.* and *Emp. opii., B.P.* 1898, if mixed with other ointments and plasters contained in the British Pharmacopœia or British Pharmaceutical Codex.

On the recommendation of the Office international d'Hygiène publique, these three groups of preparations were rejected by the Health Committee at its thirteenth session (October 1928).

As the British Government pointed out that a similar proposal from the Swedish Government, *i.e.*, for the exemption also of a certain number of groups of preparations from the operation of the Convention, had been agreed to by the Health Committee, the latter referred the question for advice and report to the Office international d'Hygiène publique.

At its extraordinary session in May 1929, the Office international d'Hygiène publique endorsed the following opinion given by its Committee of Experts :

" From the outset, the Committee of Experts had decided in principle to refuse to form groups of preparations. The apparent exception made in the case of the Swedish list is due to the fact that the Committee agreed that the phrase ' and all preparations in which are included any of the above-mentioned ' referred not to a specific group of products but rather to the solutions in other preparations of the preparations specifically referred to in the list.

" In the opinion of the Committee, it is obvious that the above phrase should be taken to mean that the solutions referred to should not contain any other narcotic drugs.

" After re-examining the whole question and hearing Professor Dixon's explanation, however, the Committee of Experts decided that the British Government's proposals were very similar to those of Sweden and that it should therefore recommend the Office to deal with them in the same way and give the same reply."

It is now for the Health Committee to take a final decision on all these preparations and to communicate it to the Council.

**ANNEX 4.**

**APPLICATION OF ARTICLE 8 OF THE INTERNATIONAL OPIUM CONVENTION,  
SIGNED AT GENEVA ON FEBRUARY 19TH, 1925.**

**LISTS OF PREPARATIONS WHICH THE GERMAN AND SWISS GOVERNMENTS PROPOSE TO EXEMPT  
FROM THE OPERATION OF THE INTERNATIONAL OPIUM CONVENTION.**

*I. Proposal by the German Government.*

In a letter dated November 11th, 1929, the German Government proposed that the following products should be exempted under Article 8 of the Geneva International Opium Convention :

*1. Dicodide Tablets with Ipecacuanha.*

Manufacturers : Messrs. Knoll A. G. at Ludwigshafen.

- (a) Dicodide bitartrate content per tablet : 0.005 gr.  
0.0050 gr. dicodide bitartrate, corresponding to 0.003 gr. of dicodide (dihydrocodeinone)  
0.0300 gr. ipecacuanha  
0.0175 gr. talcum  
0.0225 gr. starch flour  
0.0750 gr. total weight
- (b) Dicodide bitartrate content per tablet : 0.01 gr.  
0.0100 gr. dicodide bitartrate, corresponding to 0.006 gr. of dicodide (dihydrocodeinone)  
0.0600 gr. ipecacuanha  
0.0350 gr. talcum  
0.0450 gr. starch flour  
0.1500 gr. total weight

*2. Eucodal Tablets with Ipecacuanha :*

Manufacturers : Messrs. E. Merck, Darmstadt.

- 0.005 gr. eucodal hydrochloricum corresponding to 0.004 gr. eucodal (dihydrooxycodine)  
0.040 gr. ipecacuanha  
0.070 gr. lactose  
0.090 gr. starch flour  
0.015 gr. talcum  
0.220 gr. total weight

The proportion of narcotic drug to ipecacuanha is 1:10 in both preparations, as in Dover's Powder, which has already been exempted from the provisions of the Convention in virtue of Article 8. Tests have shown that it would be futile to recover the narcotic, say, by infusing the tablet in water, as emetine from the ipecacuanha always goes into the solution, together with the dicodide and eucodal salt.

*II. Proposal by the Swiss Government.*

In a letter dated January 25th, 1930, the Swiss Government proposes that the following products be exempted under Article 8 of the Opium Convention :

Ipecopan tablets with a dose of 0.006 gr. of ipecopan per tablet. Percentage content : morphine 0.4, emetine hydrobromide 0.2.

Ipecopan ampoules with a dose of 0.012 gr. of ipecopan per ampoule. Percentage content : morphine 0.4, emetine hydrobromide 0.2.

In these two preparations the morphine content exceeds the maximum percentage allowed of 0.2, but the proportion of emetine is so high that it precludes all possibility of abuse for non-therapeutic purposes.

**ANNEX 5.**

APPLICATION OF ARTICLE 10 OF THE INTERNATIONAL OPIUM CONVENTION,  
SIGNED AT GENEVA ON FEBRUARY 19TH, 1925.

OPINION OF THE OFFICE INTERNATIONAL D'HYGIÈNE PUBLIQUE.

*Preparations containing Dihydrooxycodone (Eucodal), Dihydrocodeinone (Dicodide), Dilaudide, Benzoylmorphine or other Esters of Morphine.*

At the request of the British Government, the Health Committee submitted to the Office international d'Hygiène publique, for an opinion and a report, the question whether preparations containing eucodal or dicodide were to be subject to the provisions of the Convention and, if so, whether preparations containing less than a certain percentage of these drugs were to be exempted from the operation of the Convention.

In referring this request of the British Government to the Office, the Health Committee added the following question :

Should preparations containing dilaudide, benzoylmorphine or other morphine esters be subject to the provisions of the Convention and, if so, should preparations containing less than a certain percentage of these drugs be exempted from the operation of the Convention ?

After considering the report of its Committee of Experts, the Permanent Committee of the Office international d'Hygiène publique unanimously adopted the following resolutions at its extraordinary session of May 1929 (meeting of May 7th) :

“ 1. Benzoylmorphine and Morphine Esters :

“ The Committee is of opinion that preparations containing these esters should be treated like those containing diacetylmorphine, which means to say that they should be subject to the provisions of the Convention whatever their narcotic drug content.

“ 2. Eucodal, Dicodide and Dilaudide :

“ The Committee considers that all preparations containing these substances should also be brought under the provisions of the Convention, subject to the provisions of Article 8. It considers it desirable that, in the case of all fresh substances coming within the scope of the Geneva Convention, the provisions of Article 4 (d) of the Convention should be made inoperative, being of opinion that this clause is unjustifiable and unnecessarily complicates the application of the Convention. The limits which it allows are wholly arbitrary and are based on a percentage which means nothing, since what matters in these cases is the total quantity of narcotic drug contained in the preparation and its combination with other substances. An instance which may be given is that of chlorodyne (British Pharmacopœia 1885), whose narcotic content is below the maximum allowed ; this preparation is known to be abused in certain countries, where it is consumed on a large scale, a form of consumption which may lead to addiction and its consequences.”

It is now for the Health Committee to come to a final decision on this point, and to communicate it to the Council.

**ANNEX 6.**

OPIUM COMMISSION OF THE OFFICE INTERNATIONAL D'HYGIÈNE PUBLIQUE.

MEETING HELD AT GENEVA ON MARCH 7TH, 1930, AT 9 A.M.

The following were present : Dr. CARRIÈRE (*President*), Professor Ricardo JORGE, Dr. CHODZKO, Dr. HAMEL, M. VELGHE (*President of the Office international d'Hygiène publique*).

In accordance with the arrangement concluded between the Health Organisation of the League of Nations and the Office international d'Hygiène publique with a view to speeding up the procedure laid down in Article 10 of the Geneva International Opium Convention, the Opium Commission of the Office was requested by the Health Committee to consider whether the salts of the following substances should be brought under the provisions of the Geneva Convention :

Dihydrooxycodone,  
Dihydrocodeinone (dicodide),  
Dihydromorphinone (dilaudide),  
Esters of morphine.

These substances themselves and their preparations have already been the subject of a recommendation by the Office to the Health Committee.

Dr. Carrière said that it was necessary to bring these salts under the Geneva Convention, since the campaign against the abuse of narcotic drugs could not be effectively carried on unless this method was adopted. He pointed out that the Governments of Switzerland, of the German Reich, of Great Britain and of other countries as well had already placed these salts under very strict control.

The Health Organisation's proposal had already been unofficially submitted to the Commission of Experts of the Office international at its meeting at Berne on January 3rd, 1930, which unanimously recommended its acceptance. The President of the Commission accordingly submitted the following resolution :

“ The Opium Commission of the Office international d'Hygiène publique is of opinion that all the salts of the following substances :

Dihydrooxycodine,  
Dihydrocodeine (dicodide),  
Dihydromorphine (dilaude),  
Esters of morphine,

should be brought under the Geneva Convention in accordance with the provisions of Article 10 of the said Convention.”

*This resolution was unanimously adopted.*

(Signed) CARRIÈRE.  
VELGHE.

C.H. 851.

### ANNEX 7.

## INTERNATIONAL OPIUM CONVENTION, SIGNED AT GENEVA ON FEBRUARY 19TH, 1925.

- I. NOTE ON THE QUESTION WHETHER SYNTHETIC MORPHINE COMES WITHIN THE SCOPE OF THE GENEVA INTERNATIONAL OPIUM CONVENTION.
- II. MANUFACTURE OF EUCODAL AND DICODIDE FROM MORPHINE AND CODEINE.

### I.

#### SYNTHETIC MORPHINE.

In a verbal note <sup>1</sup> to the Secretary-General dated December 12th, 1929, the Polish delegation accredited to the League of Nations pointed out that the provisions of the Geneva Opium Convention

“ do not apply to synthetic morphine, since they refer solely to morphine defined as the principal alkaloid of opium, having the chemical formula  $C_{17}H_{19}NO_3$ .”

The Social Section of the Secretariat communicated this note to the Health Section with the request for a technical opinion on the point.

\* \* \*

The text of the Convention leaves no doubt on this point. It is quite true that, in Article 1, the Convention lays down that :

“ *morphine* means the principal alkaloid of opium, having the chemical formula  $C_{17}H_{19}NO_3$ .”

The Convention does not, however, say that morphine means the principal alkaloid of opium, *extracted from opium*, having the chemical formula  $C_{17}H_{19}NO_3$ . The only warrantable conclusion is, therefore, that any substance having the chemical formula  $C_{17}H_{19}NO_3$  is the principal alkaloid of opium that is to say, morphine, and comes under the terms of the Convention.

What initial material was used for the manufacture of this substance is immaterial.

This interpretation of Article 1 of the Convention was unofficially submitted to the experts <sup>2</sup> of the Office international d'Hygiène publique at their meeting at Berne on January 4th, 1930, and was unanimously approved by them. Two of those present at the meeting (Dr. Carrière and Professor Perrot) who had also attended the Geneva Opium Conference, added that one of the reasons why the chemical formula of morphine had been included in the text of the Convention was precisely to ensure that synthetic morphine should, if produced, be covered by the provisions of the Convention.

<sup>1</sup> See Appendix, page 54.

<sup>2</sup> They are: Messrs Bürgi, Dixon, Knaff-Lenz, Modrakowski, Perrot and Straub.

II.

MANUFACTURE OF EUCODAL AND DICODIDE FROM MORPHINE AND CODEINE.

In a letter dated November 18th, 1929, Mr. L. A. Lyall, President of the Permanent Central Opium Board, referred to the Health Committee the question of whether eucodal and dicodide could be industrially produced direct from morphine or codeine, or whether this process of conversion was too expensive to be used for any purpose other than laboratory experiments.

This question was unofficially submitted to the experts of the Office international d'Hygiène publique at their meeting at Berne on January 4th, 1930. They were unanimously of the opinion that the question whether the manufacture of eucodal and dicodide from morphine or codeine would pay depends solely on the price of the latter substances (more especially codeine) on the one hand, and that of thebaine on the other.

At the present moment, the price of thebaine being low relatively to that of codeine, it would not pay to produce eucodal or dicodide from morphine. The price of thebaine may, however, be expected to rise as the consumption of derivatives of that substance increases, and it is not impossible that the production of such derivatives from codeine may become remunerative.

But, as already stated, the possibility of making this process pay depends also on the price of codeine, which not only fluctuates, but varies from country to country. The price depends, among other things, on the quality of the opium chosen as raw material, the codeine content of the opium being extremely variable.

*Summary.*

The production of eucodal and dicodide from morphine and codeine is theoretically possible; it is also industrially possible, assuming that the relative price levels of thebaine and codeine should be favourable. These conditions may be expected to come about, in view of the probable rise in the price of thebaine and the probable fall of that of codeine.

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*Report by Professor Knaffl-Lenz concerning the Various Possible Ways of producing Codeinone Derivatives (Eucodal, Dicodide and Acedicone.)*

(See Detailed Structural Formulæ of Morphine Derivatives, page 52).

Thebaine is useless for therapeutic purposes, but it has a close chemical relationship with codeine. By chemical processes this otherwise valueless subsidiary alkaloid—which is present in opium in the proportion of 0.1 to 0.5 per cent—may be converted into one of the well-recognised or one of the newer alkaloids which are therapeutically valuable.

Thebaine can be transformed into codeine by first oxidising and then reducing it. This process is, however, of no practical interest, as the yield is very poor.

The two oxidation products of thebaine, codeinone and oxycodone are, also, therapeutically useless, as they have the convulsive properties of thebaine. By the introduction of two hydrogens into the molecule, thus dispensing with the double bond, these oxidation products acquire properties similar to those of morphine, including the valuable as well as the injurious properties.

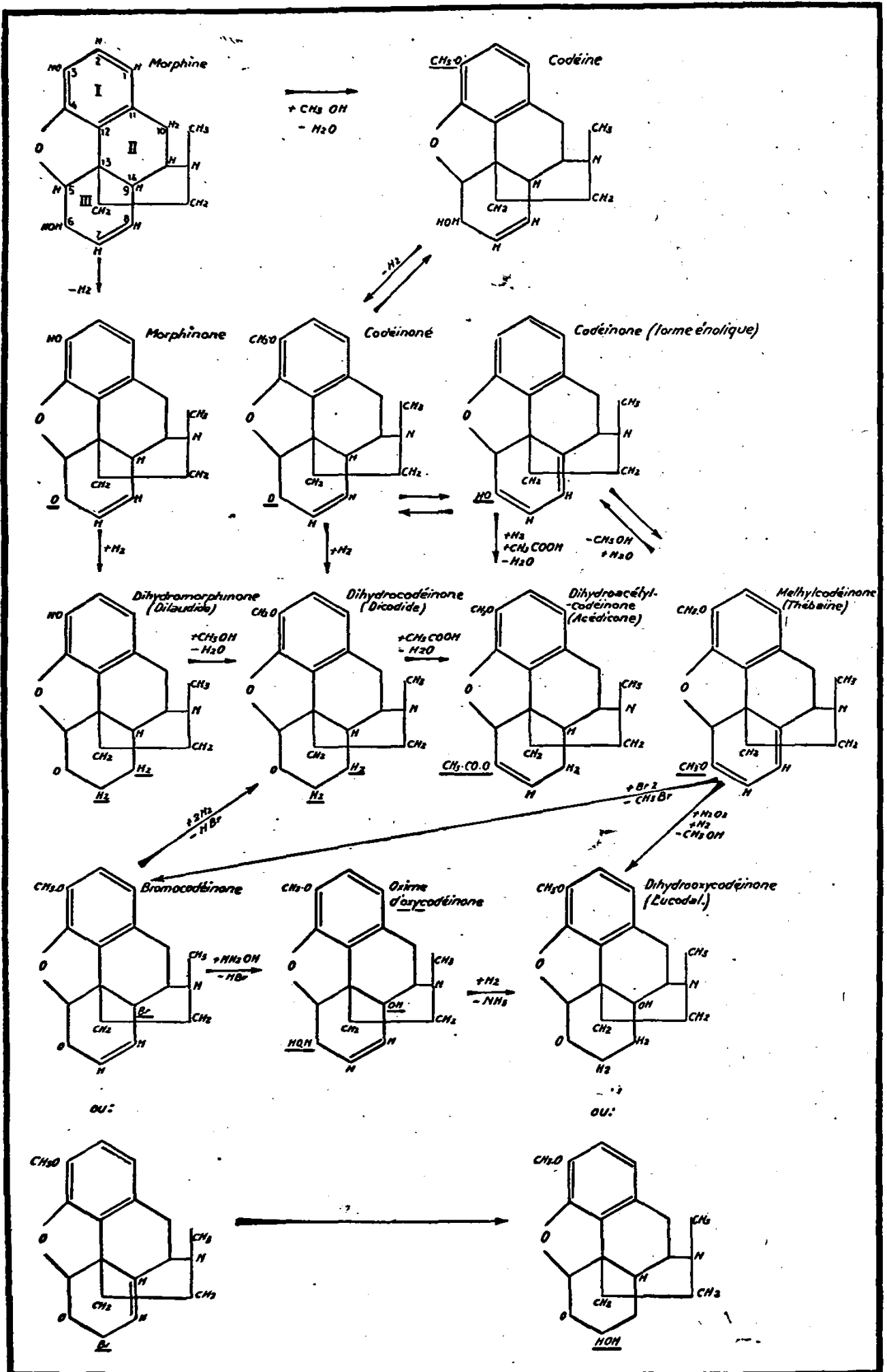
The large supplies of thebaine available, and the current production of thebaine, were amply sufficient for the requirements of eucodal production, especially at a time when eucodal was hardly known outside Germany. It was only when this preparation was brought under the Opium Convention that it became internationally known and much more extensively used. Indeed, in Siam, it is already the active component of the so-called anti-opium *pills and tinctures*. So long as the otherwise useless thebaine could be obtained in adequate quantities at economic rates, there was no reason to attempt the production of eucodal from codeine or morphine. But the present high price of thebaine and the rising demand for eucodal afford a strong incentive to work out such a method of production.

The following details show the chemical relations of these derivatives with morphine or codeine and explain the methods now in use for the production of codeine derivatives.

*Thebaine—dicodide* (dihydrocodeinone), *acedicone* (acetic acid ester of dihydrocodeinone) and *eucodal* (dihydrooxycodone) are, as will be seen from the reproduced structural formulæ, derivatives of *codeinone*. Codeinone can be obtained both from thebaine and codeine (for morphine), so that the codeinone derivatives can also be described as morphine derivatives, the more so as their effects are very similar to those of morphine.

Codeinone differs from codeine in that the alcoholic hydroxyl group is transformed into a ketone group. Aromatic ketones can generally be converted with ease into tautomeric forms by the shifting of a hydrogen from position (7) to position (6): this introduces a double bond and the addition of a hydroxyl group. As the result of the transposition, the ketones can form ethers and esters.

Thebaine should therefore be regarded as the methyl ether of the enolic form of codeinone. This methyl group, unlike that of codeine, which is held fast by the phenol group, is easily





detached, so that the conversion of thebaine into codeinone is not a matter of difficulty. On the other hand, codeinone may also be obtained by the oxidation of codeine; and, as codeinone can be easily turned into dihydrocodeinone by catalytic hydration, it is clear that dicodide can be produced either from thebaine or codeine.

### I. Preparation of Dihydrocodeinone.

At present the following processes for the preparation of dihydrocodeinone have been described, and patents have been applied for.

1. *Preparation from Morphine.* — Morphine is shaken up in contact with platinum or palladium as catalysts and hydrogen as required in quantities exceeding those necessary for saturation. This converts it into dihydromorphinone (dilaudide). The methylation of this product by one of the current processes for the conversion of morphine into codeine yields dihydrocodeinone (dicodide) (D.R.P. 365683, Class 12 p., 1922, Knoll & Co., and supplementary patent P.380919., G. 120., 1922).

2. *Preparation from Codeine.* — Dihydrocodeinone is obtained by the oxidation of codeine into codeinone and subsequent hydration by means of hydrogen in contact with platinum metals.

The transformation of codeine into codeinone can be effected :

1. By oxidising codeine with chromic acid in the presence of weak acids (yield approximately 40 per cent) (D.R.P. 408870, Cl. 12. p., 1923 Merk).

2. Dihydrocodeinone is produced direct by the direct hydration of codeine with quantities of platinum or palladium catalyst and hydrogen above saturation requirements. The process involved in this case is similar to that employed for the conversion of morphine into dihydromorphinone. The introduction of the hydrogen eliminates double bonds and at the same time oxidises the hydroxyl group into a ketone group (D.R.P. 365363, Cl. 12. p., 1921, and Supplementary Patent 380159, Cl. 12. p., 1922, Knoll & Co.).

3. *Preparation from Thebaine.* — (a) The hydration of thebaine with sodium in an alcoholic solution produces dihydrothebaine, which is converted into dihydrocodeinone by boiling in acids. This method has no practical value (Freund and Speyer 53. p. 2250, 1920).

(b) Thebaine in glacial acetic acid is treated with bromine, thereby producing bromocodeinone (yield 50 per cent). Dihydrocodeinone is obtained together with hydrobromic acid by catalytic reduction (Speyer and Sarre, Ber. 57. p. 1404, 1924).

The production of dihydrocodeinone from codeine according to Knoll's patent seems to be the best and simplest method.

### II. Preparation of Acedicone.

Thebaine is hydrated by catalysis; the methoxyl group of the resulting dihydrothebaine is saponified and acetylated by boiling in acids (Behrens, Nonnebruch, Rischawy, Schöpf and Wieland, D. med. W. p. 302, 1929).

The process in this case is the acetylation of dihydrocodeinone. Acetylated dicodide is identical with acedicone (Knaffl-Lenz unpublished researches).

### III. Preparation of Eucodal.

The preparation of *dihydrooxycodone* (eucodal) from codeine has not yet been described in chemical literature, nor has any patent been applied for in respect of any process. There are, however, various ways of preparing it from thebaine.

(a) By the oxidation of thebaine in an acetic acid solution with the help of peroxide of hydrogen. A yield of about 70 per cent of oxycodone is obtained, which can be converted into *dihydrocodeinone* by catalytic reduction.

(b) Oxycodone can also be obtained by treating thebaine with 30 per cent peroxide of hydrogen.

(c) Oxycodone can also be obtained by oxidising thebaine with potassium bichromate and sulphuric acid.

(d) If bromocodeinone, which is produced by brominating thebaine, is treated with hydroxylamine, the oxime of oxycodone is obtained; this, if subjected to catalytic reduction, yields *dihydrooxycodone* and ammonia. Oxycodone can also be prepared from the oxime by saponification, and subsequent hydration by catalysis.

FREUND and SPEYER, *Journal für prakt. Chemie*, 94, 135 (1916).  
D.R.P. 286431, Cl. 12 p. (1914), FREUND and SPEYER.  
FREUND, *Berichte der Deutschen Chem. Gesellschaft*, 39, 844 (1916).  
SPEYER and SARRE, *Berichte der Deutschen Chem. Gesellschaft*, 58, 1404 (1924).  
SCHÖPF, *Liebigs Annalen der Chemie* 452, 250 (1927).  
FREUND, *Berichte der Deutschen Chem. Gesellschaft*, 39, 849 (1906).  
GULLAND and ROBINSON, *Mem. and Proc. Manch. Soc.* (1924-25).  
D.R.P. 296916, Cl., 12 p. (1916), FREUND and SPEYER.  
SPEYER and SELIG, *Liebigs Annalen der Chemie*, 430, 17 (1922).

The preparation of eucodal from codeine has not yet been described, but it is possible theoretically. The codeinone obtained from codeine by any of the processes described would have to be brominated, and the resulting bromocodeinone treated in the same way as that prepared from thebaine. Whether the resulting product would be identical with eucodal or an isomer would require to be ascertained by tests. It is always possible that, in the process of bromination, the bromine might not be introduced in the same position as in thebaine. It can enter both at 7 and at 14. Which of these two positions the hydroxyl group occupies in eucodal is even now uncertain.

Another possible way would be to convert the codeine obtained from dihydrocodeine into dihydroxycodeinone through the bromine derivative.

To sum up, at present, *dicodide* (dihydrocodeinone) is most readily prepared from *codeine* in accordance with Knoll's patent.

Eucodal (dihydroxycodeinone), on the other hand, is at present only prepared, so far as is known, from thebaine. No method of preparation from codeine has yet been either described or patented, though preparation in this manner is possible. Whether codeine or thebaine will be used as the point of departure for the production of codeinone derivatives will depend primarily on the supplies of thebaine available and its price.

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#### Appendix.

VERBAL NOTE SUBMITTED BY THE POLISH DELEGATION TO THE LEAGUE OF NATIONS.

[Translation.]

Geneva, December 12th, 1929.

With reference to the Secretary-General's letter No. 12/2546/2546 of October 29th concerning the manufacture of synthetic morphine by the "Motor" factory at Warsaw, the Polish delegation has the honour to communicate the following details:

The "Motor" Works, Ltd., at Warsaw, referred to in the review *Chemistry and Industry* of September 27th, 1929, is the same firm as the one which heads the list forwarded to the Secretary-General in the Polish delegation's letter No. 2049/49 of August 12th, 1929. This factory is carrying out experiments in the manufacture of synthetic morphine by the J. McLang process, but these trials are in the nature of laboratory experiments. The work carried out on synthetic morphine, which relates, firstly, to the action of the product and, secondly, to the estimation of the cost of production, has so far not yielded satisfactory results, so that there is no reason to anticipate that synthetic morphine will be placed on the market in the near future.

The Polish delegation would take this opportunity of observing that the provisions of the Geneva Convention do not apply to synthetic morphine, since they refer solely to morphine defined as the principal alkaloid of opium, having the chemical formula  $C_{17}H_{19}NO_3$ . The provisions of Article 10 of the Convention could only be applied to synthetic morphine if that product could be substituted for morphine extracted from opium and if, large-scale manufacture becoming possible, it could give rise to the drug habit.

C.H.852.

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#### ANNEX 8.

APPLICATION OF ARTICLE 10 OF THE INTERNATIONAL OPIUM CONVENTION,  
SIGNED AT GENEVA ON FEBRUARY 19TH, 1925, TO ACEDICONE, A NEW  
DERIVATIVE OF CODEINONE.

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REPORT BY PROFESSOR KNAFFL-LENZ.

The firm of *Böhringer*, of Hamburg, is putting on the market a new codeinone derivative—*acedicone*—which should, in view of its constitution and physiological action, come under the provisions of the Opium Convention, like the two other codeinone derivatives—*dicodide* and *eucodal*.

No. 8 of the "Deutsche Medizinische Wochenschrift" (1929) publishes a paper by *Behrens, Nonnenbruch, Rischawy, Schöpf* and *Wieland* on the chemistry, pharmacology and clinical use of acedicone.

### I. Chemistry.

The production of acedicone from thebaine is as follows: two atoms of hydrogen are added to the thebaine and one of the methoxyl groups is then replaced by the acetyl radical; this is why the authors describe it as an acetyl-dimethyl-dihydro-thebaine.

The resultant base is insoluble in water, but easily soluble in organic solvents, melting at a temperature of 154-156° C. The hydrochloride is easily soluble in water and melts and foams up at a temperature of 132-135° C. The acetyl radical is not detached by boiling for an hour in water, but saponification takes place readily in the presence of mineral acids, acetic acid and dihydrocodeinone being formed.

### II. Pharmacology.

The detailed pharmacological analysis of acedicone carried out by the authors referred to on frogs, pigeons, mice, rabbits and dogs had proved that its action lies midway between that of codeine and that of morphine. Both the purely paralysing effect of acedicone on the respiratory centre of rabbits and the decreased sensibility to pain point to the fact that its properties are more akin to those of morphine than to those of codeine.

As regards habituation and the development of a craving for the drug, no conclusions can be drawn from the animal experiments as to the effects which acedicone would have in this respect on human beings. Experiments on dogs show that habituation is produced far more slowly with acedicone than with morphine.

### III. Clinical Experience.

Clinical observations have shown that the analgesic effect of acedicone, when subcutaneously injected, is about the same as that of morphine; that the same hypnotic effect can be produced with half the dose required in the case of morphine; and that the sedative effect on the respiratory centre is identical with that of morphine.

The paralysing effect on the intestines is, however, very much less marked.

As regards the dangers of habituation and addiction, the authors express themselves very cautiously. They say that they have not observed, even in the case of their own patients, any sign of craving, and that only in rare cases, when the drug was suddenly withdrawn, slight accidents of deprivation were produced which were not, however, anything like so severe as those produced by the withdrawal of morphine. In three cases of pronounced morphinism, however, morphine could be replaced without any difficulty by an equal dose of acedicone. The authors are of opinion that further research will be necessary to determine whether acedicone belongs to the class of habit-forming derivatives.

The mode of production and the structural formula given by the authors pointed to the fact that acedicone was identical with the acetyl ester of dicodide (dihydrocodeinone), and its action on animals and human beings, as described, does, in fact, display a large measure of similarity with that of dicodide.

It was not difficult to prove that acedicone is chemically identical with the acetyl ester of dicodide.

If dihydrocodeinone (dicodide) is boiled for several hours with acetic anhydride in the presence of sodium acetate, in the reflux condenser, it passes over quantitatively into the acetyl ester, which melts, after a single recrystallisation, at a temperature of 154-156° C.—that is to say, at the same temperature as the acedicone base. A mixture of acedicone and acetyl ester of dihydrocodeinone produced in this way has also been found to have the same melting-point. On the other hand, by the saponification of acedicone (boiling for an hour with dilute mineral acids) a basic compound was produced whose melting-point was the same as that of dihydrocodeinone. The base and also a mixture of the latter with dihydrocodeinone melts at a temperature of 193-194° C.

These results have clearly established that acedicone is identical with the acetyl ester of dihydrocodeinone (dicodide).

The acetylation of morphine is known to increase the latter's potency approximately threefold, and this might equally be the case with dihydrocodeinone. Experiments carried out on mice, frogs and rabbits have shown, however, that this is not so. The minimum lethal dose both of acedicone and of dicodide is 3 mg. per 20 gr. mouse, and the other action of these two substances on the central nervous system is identical both qualitatively and quantitatively.

*Messrs. Knoll* of Ludwigshafen, who manufacture dicodide, have been good enough to inform me in reply to my enquiry that the acetyl derivative of dihydrocodeinone was manufactured in 1916 and tested by Professor Gottlieb at the Pharmacological Institute of the University of Heidelberg. The results of these tests (which had not been published) are concordant with mine.

Although the authors referred to have not observed any signs of craving, even after prolonged administration of this drug, they do not deny the possibility of it. We know, in fact, that morphine, when cautiously administered for not too long a period, only produces habituation and addiction in a comparatively short time in predisposed subjects, who experience a very marked euphoria after the first doses. It is not surprising, therefore, that no signs of craving have ever been observed in clinics, where acedicone was obviously very carefully administered.

In view of the absolute identity of action of acedicone and dicodide, however, there can be no doubt that the former, if incautiously administered, can, like dicodide, produce a craving in predisposed subjects. This view is clearly supported by the fact that the authors themselves have observed that, in cases of pronounced morphinism, morphine can be entirely replaced by acedicone. Now we know that, in cases of pronounced morphinism, the craving can only be satisfied by the administration of such derivatives as are themselves habit-forming. Thus, it is impossible to satisfy the craving by administering codeine, as this drug does not produce euphoria nor, after the administration of large doses over a long period, does it produce a pathological condition similar to morphinism.

Acedicone (acetyl-dimethyl-dihydrothebaine ; acetyldihydrocodeinone) should therefore, under Article 10 of the Geneva Opium Convention, come under the provisions of this Convention like the two other derivatives of codeinone-dihydrocodeinone (dicodide) and dihydroxy-codeinone (eucodal).

C.H.856.

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**ANNEX 9.**

**ESTABLISHMENT OF A PERMANENT SECRETARIAT FOR THE UNIFICATION  
OF PHARMACOPOEIAE.**

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**LETTER OF THE BELGIAN MINISTRY FOR FOREIGN AFFAIRS TO THE SECRETARY-GENERAL.**

[*Translation.*]

Brussels, February 22nd, 1930.

The International Arrangement drawn up by the Conference for the Unification of the Formulæ of Heroic Drugs held in 1925 having been signed by fourteen Powers, the Permanent Secretariat referred to in Articles 34 and 35 (paragraph 2) of this diplomatic instrument is thereby potentially set up and its working provisionally entrusted to the " Commission Belge de la Pharmacopée " (Belgian Pharmacopœia Committee), pending the League of Nations' decision regarding the application to this international organisation of the provisions of Article 24 of the Treaty of Versailles.

I have the honour to inform you that this secretariat has now been constituted.

In this connection, I would mention that this question was submitted to the Council of the League of Nations at its meeting of August 30th, 1929, and that you were good enough to forward to me a copy of the Minutes of this meeting containing the text of the relevant report and resolution adopted by the Council.

I subjoin to the present communication the programme of the secretariat's work (Appendix I), together with a questionnaire (Appendix II). Both of these have been submitted to the signatory Powers with the request to communicate any observations or suggestions they may desire to make.

Furthermore, the Belgian Government directed the attention of the signatory Powers to the recommendations (Appendix III) adopted by the Second International Conference held at Brussels (1925) ; these are reproduced at the end of the Final Protocol, but have not been embodied in the Arrangement of August 20th, 1929.

(Signed) HYMANS.

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**Appendix I.**

**PROGRAMME OF WORK OF THE PERMANENT SECRETARIAT FOR THE  
UNIFICATION OF PHARMACOPOEIAE.**

The international Arrangement drawn up by the Conference for the Unification of the Formulæ of Heroic Drugs held in 1925 having been signed by fourteen Powers, the permanent secretariat referred to in Articles 34 and 35 (paragraph 2) of this diplomatic instrument is thereby potentially set up and its working provisionally entrusted to the " Commission Belge de la Pharmacopée " (Belgian Pharmacopœia Committee), pending the League of Nations' decision regarding the application to this international organisation of the provisions of Article 24 of the Treaty of Versailles.

**L. Organisation.**

The permanent secretariat is placed under the direction of the Office of the Belgian Pharmacopœia Committee ; its seat is established on the premises of the Ministry of the Interior and of Health, No. 6, rue de la Loi, Brussels.

## II. *Duties and Powers.*

Under the international Arrangement, the duties and powers of the permanent secretariat shall be as follows :

Apart from its duties of forwarding documents and co-ordinating work on the unification of pharmacopœiæ, the secretariat shall deal with the following matters :

1. It shall prepare amendments and additions to the Brussels Convention in regard to the formulæ of heroic drugs ;
2. Study the best methods of determining the active elements in heroic drugs and make proposals for fixing the composition of these elements ;
3. Formulate proposals designed to secure uniformity of nomenclature in pharmacopœiæ ;
4. Draw up proposals for the standardisation of the descriptions of chemical products, their analyses, etc., in pharmacopœiæ ;
5. Define certain terms used in pharmacy ;
6. Prepare a list of short designations for drugs, the scientific name of which is too long ;
7. Standardise the schedule of maximum doses.<sup>1</sup>

### Appendix II.

#### QUESTIONNAIRE TO BE FORWARDED TO THE POWERS SIGNATORIES TO THE ARRANGEMENT.

1. Is your Government prepared to send to the permanent secretariat a copy of your national pharmacopœia at present in use ? In return, the Belgian Government will be glad to present the fourth edition of the Belgian Pharmacopœia to be published shortly.
2. Is a new edition of your pharmacopœia at present in course of preparation ? If so, when is it likely to appear ? Would you be prepared to send a copy to the permanent secretariat ?
3. What is the address of your Pharmacopœia Committee at present in office ?
4. If there is no Pharmacopœia Committee in office at present, would your Government be so good as to designate a person with whom the secretariat might usefully correspond ?
5. Is your Committee permanent or temporary ? How is it constituted ?
6. What are your Committee's duties and powers ?

### Appendix III.

#### RECOMMENDATIONS OF THE SECOND INTERNATIONAL CONFERENCE AT BRUSSELS (1925).

##### *Nomenclature.*

1. It is desirable that the international Latin name of each drug should be placed at the head of the item in the pharmacopœia containing its description.
2. It is desirable, in the case of chemical compounds, to adopt a single nomenclature similar to the one used, for instance, for the majority of saline compounds in the pharmacopœiæ of the United States, Great Britain and Sweden.

##### *Biological Methods.*

3. The Conference, having noted the Organising Committee's report on the fifth question and the report of the Second International Conference for the Biological Standardisation of Certain Remedies, adopts the following recommendation :
  - (1) That biological standardisation be introduced in the pharmacopœia to the extent to which this may be deemed necessary ;
  - (2) That, unless there are adequate reasons to the contrary, pharmacopœiæ should adopt the methods now or in future recommended by the Health Organisation of the League of Nations ;
  - (3) That the Pharmacopœiæ Committees should transmit to the Health Organisation of the League of Nations any observations or suggestions they may desire to make concerning the above-mentioned methods.

##### *Receptacles.*

4. The Conference decides that there is no need for the present to lay down international rules regarding receptacles, and proposes that the question of labelling and other precautionary measures should be studied with a view to the adoption of international regulations.

##### *Pharmacopœiæ.*

5. The Conference recommends that the text of the Brussels Convention be embodied in any newly issued pharmacopœia.
6. The Conference recommends that the various Pharmacopœia Committees should be set up permanently.
7. The Conference recommends that any modifications of pharmacopœiæ be published with the least possible delay.

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<sup>1</sup> The schedule of maximum doses was distributed in 1926. Replies have already been received from Finland, France, the Netherlands, Norway and Sweden.

ANNEX 10.

REPORT ON THE WORK OF THE FIFTEENTH SESSION  
OF THE HEALTH COMMITTEE

*Held at Geneva from March 5th to 8th, 1930.*

I.

PROPOSALS OF THE NATIONAL GOVERNMENT OF THE REPUBLIC OF CHINA FOR COLLABORATION  
WITH THE LEAGUE OF NATIONS ON HEALTH MATTERS.

A. The Health Committee,

After studying the proposals of the National Government of the Republic of China for collaboration which it desires with the League of Nations on health matters, and having examined the report of the Medical Director concerning the Mission carried out on the invitation of the Government of China;

Approves the report as a whole and expresses appreciation of the attitude adopted by the Government of China.

The Health Committee,

Considering that the Council of the League of Nations has expressed the wish that all necessary assistance should be afforded in the development of China, that the collaboration requested is entirely in harmony with the programme and aims of the technical organisations of the League of Nations, and, while fully appreciating the difficulties of the task with which it would be entrusted and the length of time required to accomplish it,

Recommends to the Council the approval of the entire programme of collaboration presented by the Government of China, as set forth in the report of the Medical Director, and requests the latter to make arrangements for providing the assistance of the Health Organisation in giving effect to that programme if approved by the Council.

B. *Re-organisation of the Quarantine Service of Chinese Ports.*

The Health Committee,

After study of the proposals of the National Government of the Republic of China, concerning the collaboration of the League of Nations in the re-organisation of the quarantine services of the Chinese ports, and on the advice of the Commission for Quarantine Measures in China<sup>1</sup> designated during the present session:

1. Accepts the proposals made by the Chinese Government to obtain the benefit of the experiences of health services in other countries in the re-organisation of the present quarantine services;

2. Approves the arrangements proposed by the Health Section that Dr. Park should visit China forthwith, in order to complete the survey which has already been begun and report to the Commission thereon at an early date. In his report, Dr. Park should give special consideration to the possibilities of the satisfactory application of the provisions of the International Sanitary Convention of 1926;

3. Notes that the Commission has given Dr. Park certain guiding lines for this survey. These include the sanitary equipment of ports, the nature of the action to be taken against the importation and exportation respectively of infectious diseases, and the measures needed to deal with the special conditions of coastal traffic;

Notes that, on the completion of Dr. Park's survey, he will present proposals for consideration by the Commission regarding the scheme to be submitted to the Chinese National Government;

4. Requests that the Commission, in so doing, should confer with any experts who may be delegated by the Communications and Transit Organisation of the League, in conformity with the request of the Chinese Government, before submitting the scheme to the Health Committee.

<sup>1</sup> The Commission was composed as follows:

Chairman: M. VELGHE.  
Members: Sir George BUCHANAN.  
Dr. LUTRARIO.  
Surgeon-General CUMMING.  
Dr. JITTA.  
Professor MIYAJIMA.  
Dr. RAYNAUD.  
Professor NOCHT.

2.

REQUEST OF THE BULGARIAN GOVERNMENT FOR THE CO-OPERATION OF THE  
HEALTH ORGANISATION IN CONNECTION WITH THE CAMPAIGN AGAINST ENDEMIC SYPHILIS  
IN CERTAIN AREAS OF BULGARIA.

A request was received from the Bulgarian Government on September 6th, 1929, for the assistance of the Health Organisation in the campaign against syphilis in certain parts of that country. Preliminary enquiries were carried out both in collaboration with the Department of Health of the Ministry of the Interior and the Bulgarian Refugees Settlement Commissioner. Provisional recommendations were made and agreed to by the Chief Medical Officer of the Department of Health and the senior officials of the Bulgarian Refugees Settlement Commission. The Health Committee adopted the following resolution:

“ The Health Committee,

“ Having noted the report of the Health Section (document C.H. 837);

“ Recommends the acceptance of the proposal made by the Bulgarian authorities for the collaboration of the Health Organisation in a campaign to be undertaken against endemic syphilis prevalent in certain areas of Bulgaria;

“ Is glad to note that the Commissariat of the League of Nations for the Settlement of Bulgarian Refugees is prepared to assume responsibility for the expenses involved in the preliminary enquiry, the training of the necessary personnel and the carrying out of the prophylactic campaign (document C.H. 837);

“ Invites its Commission of Experts on Syphilis and Cognate Subjects to afford all requisite technical assistance, including the placing of the services of an expert at the disposal of the Bulgarian authorities. ”

---

3.

OPIUM.

A.

The Health Committee had before it, for consideration, a report from the Office international d'Hygiène publique, concerning the application of Article 8 of the International Opium Convention of February 19th, 1925, to certain lists of preparations submitted by various Governments. The following resolution was adopted:

“ The Health Committee adopts all the conclusions of the Report of the Office international d'Hygiène publique, on the application of Article 8 of the Opium Convention, signed at Geneva on February 19th, 1925, to the preparations proposed by the Governments of British India, Bulgaria, France, Germany, Great Britain, the Irish Free State, Poland and Roumania, as they appear in document C.H. 843. ”

B.

The German and Swiss Governments also recently submitted to the Health Committee proposals for applying the provisions of Article 8 to various preparations. The following resolution was adopted:

“ The Health Committee decides to submit to the Permanent Committee of the Office international d'Hygiène publique, for opinion and report, according to the procedure laid down by Article 8 of the Geneva International Opium Convention, the two lists of preparations proposed by the German and Swiss Governments as they appear in document C.H. 850. ”

C.

The Health Committee had also before it a report from the Office international d'Hygiène publique concerning the application of Article 10 of the Opium Convention of 1925 to preparations containing eucodal, dicodide, dilaudide, benzoylmorphine or other esters of morphine. The following resolution was adopted:

“ The Health Committee considers that preparations which contain esters of morphine, di-hydro-oxycodine, di-hydro-codeine (dicodide), di-hydro-morphine (dilaudide) should

be treated in the same manner as those which contain diacetylmorphine, that is to say, they should come within the scope of the Convention, whatever the percentage of narcotic substances contained may be.

"It also considers that all salts of these substances should come within the scope of the Convention according to the provisions of Article 10 of the said Convention."

---

4.

ESTABLISHMENT OF AN INTERNATIONAL ORGANISATION FOR THE UNIFICATION OF PHARMACOPŒIÆ.

The above question, which arose out of the second International Conference for the Unification of the Formulæ of Heroic Drugs, held at Brussels in September 1925, was referred to the Council by the Belgian Government. The Council, on August 30th, 1929, decided to forward it to the Health Committee for examination. The Health Committee adopted the following resolution:

"The Health Committee,

"Having studied, in conformity with the resolution of the Council, dated August 30th, 1929, the question of the establishment of an International Organisation for the Unification of Pharmacopœiæ, composed of a permanent secretariat and of international committees;

"Is of opinion, after having discussed the question, that the study should be continued;

"Decides to place it on the agenda of the next session, and

"Requests the Medical Director to furnish supplementary information in due course."

---

5.

CONSTITUTION OF THE HEALTH COMMITTEE.

The mandate of the Health Committee expires on June 30th, 1930, and consequently a new Committee will have to be constituted before that date.

In connection with the proposals to be submitted to the Council at its next session, the Health Committee adopted the following resolution:

"The Health Committee,

"In view of the terms of the arrangement made with the Office international d'Hygiène publique which governs the Health Organisation of the League of Nations, and,

"Realising that it is appropriate that it should, in the near future, submit proposals to the Council of the League of Nations regarding the forthcoming nomination by the Council of members of the Committee;

"Decides to request the President and the permanent Vice-President to make the necessary proposals with regard to the designation of members of the Health Committee, for submission to the Council of the League of Nations."

---

6.

BUDGET OF THE HEALTH ORGANISATION.

The Health Committee, having considered the budget estimates of the Health Organisation for 1931, adopted the following resolution:

"The Health Committee,

"In view of the fact that the Assembly, at its tenth session, agreed that the increase in the budget of the Health Organisation, which will result from the carrying out of new undertakings in overseas countries, must be regarded, even if its details and its purposes vary from time to time, as more or less recurrent, so that the total budget can no longer be considered as stabilised at one million gold francs, although the maximum limit set some years ago could be regarded as still applicable to the general work of the Organisation;

"After having studied the report on the Medical Director's mission in China, which furnishes the first basis on which it is possible to establish definite estimates, and having also examined the situation created by the development of the Eastern Bureau at Singapore:



" Is of opinion that an additional sum of approximately Frs. 190,000 is necessary:

" (1) In view of the continuation of the undertakings in the Far East during the year 1931, which will also necessitate an increase in the credits for printing and cables, and

" (2) To cover the expenses of the Eastern Bureau at Singapore over and above the contributions given by various Far-Eastern Governments.

" The Health Committee points out that, in default of this increase, it will be impossible to find the sum required out of the credit of one million gold francs reserved for the general work of the Health Organisation. "

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7.

VENEREAL DISEASES AMONGST SEAMEN.

The Second Conference on the Health and Welfare of the Merchant Marine (October 1929) considered the question of treatment of venereal disease among seamen and requested the Health Organisation:

" (a) In consultation with medical officers of the mercantile marine, to recommend alternative systems of treatment of venereal disease which, whilst being effective, can meet the peculiar circumstances of seamen and be pursued with the minimum of economic hardship to the patient;

" (b) To endeavour to secure agreement by nations that the treatment of seamen suffering from venereal disease shall be pursued systematically in their different port clinics, according to its recommendations."

The Health Committee adopted the following resolution:

" The Health Committee, having heard the observations of the Committee's representatives at the second Conference on the Health and Welfare of the Merchant Marine, decides to refer the resolution forwarded by the Conference to the Expert Committee on Syphilis and Cognate Subjects."

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8.

INTERNATIONAL ANTI-TRACHOMA LEAGUE.

Acting on the report of the members who represented it at the Conference on Trachoma, convened on the occasion of the Thirteenth International Ophthalmological Congress held at Scheveningen in September 1929, the Health Committee adopted the following resolution:

" The Health Committee,

" Recommends that the report submitted to the Conference on Trachoma by Dr. JITTA and Dr. LUTRARIO should be printed and distributed to the members of the International Anti-Trachoma League, which will shortly be holding a Congress at Geneva, as well as to all Public Health Administrations interested in the combating of this disease;

" Recommends that the Council should acquaint States Members with the fact that this League has been constituted, and should ask them to lend full moral support to a humanitarian undertaking which can only be carried on effectively by close international co-operation."

---

9.

SOUTH AMERICAN SEROLOGICAL CONGRESS.

The Uruguayan Government, having invited the Health Committee to send a delegate to preside over the South American Serological Congress, organised at Montevideo in September 1930 by the Institute for the Prevention of Syphilis, the Health Committee adopted the following resolution:

" The Health Committee,

" Attaches great interest to the organisation at Montevideo of a South American Serological Congress,

" Is glad to note that work similar to that of the Laboratory Conference held at Copenhagen for comparing the various methods for the serodiagnosis of syphilis, will be carried out in Latin America;

" Realising the benefit to be gained by effective co-operation in the work of the Congress;

" Decides to ask its President to do everything possible to facilitate the work of the Congress, and to select its President. "

---

10.

MISCELLANEOUS.

A.

The Health Committee, realising the importance of maintaining efforts against dental diseases as vigorously as against other diseases, expresses its desire to be kept informed of the work of the International Dental Federation.

B.

The Health Committee,

Entrusts the Malaria Commission with the decision as to the manner in which it shall take part in the International Congress on Malaria which is to meet at Algiers on May 21st, 1930;

Requests Sir George Buchanan to represent it at the Congress of the Royal Sanitary Institute on July 21st, 1930;

Approves the suggestion that meetings of certain Expert Commissions should coincide with that of the First International Congress on Microbiology in Paris in July 1930, particularly that relating to the standardisation of the nomenclature of blood groups;

Requests Professor Léon Bernard to represent it at the Congress of the International Anti-Tuberculosis Union on August 12th, 1930, and

Decides to authorise the President to organise a Serological Meeting during the Congress on Venereal Diseases to be held at Copenhagen in August 1930.

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[Distributed to the Council,  
the Members of the League  
and the Delegates at the Assembly.]

Official No.: **A.9.** 1930.III.  
[C. H. 863.]

Geneva, July 1930.

**LEAGUE OF NATIONS**

**ANNUAL REPORT**

**OF THE**

**HEALTH ORGANISATION**

**FOR 1929**

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The present report describes the work of the Health Organisation of the League of Nations during 1929, and is the fifth of a series prepared by the Health Section to give effect to a resolution adopted by the Health Committee in April 1925.

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Series of League of Nations Publications

III. HEALTH.  
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## Chapter I.

### I. INTRODUCTION.

Requests for collaboration on specified subjects in connection with public health have been addressed to the League by various Governments in the past.

For the first time in 1929, the technical resources at the disposal of the Health Organisation, together with the experience gained and the information accumulated since its inception, were made available at the request of Governments to formulate a plan for the reorganisation of their health services<sup>1</sup>. The first task of this kind undertaken was in Greece.

The enquiries which preceded the drawing up of the final plan occupied the first four months of the year, during which time the members of the Commission whose services were placed at the disposal of the Greek Government, together with the Director and members of the Health Section and the experts who accompanied them, visited various parts of Greece to study local conditions.

During the year the Health Ministry of the National Government of the Republic of China invited the Medical Director to become a member of an International Committee of Technical Advisers, and in September 1929 an official request was received from that Government asking that a Committee of Experts from the Health Organisation should visit China to make a survey of health conditions in the ports and of maritime quarantine. Accordingly, in October the Medical Director, accompanied by a member of the Section, proceeded to China to consider with the competent authorities a scheme for co-operation between the Chinese Ministry of Health and the Health Organisation.

The assistance of the Health Organisation has also been sought by the Government of Bolivia in the reorganisation of the health services of that country.

In March the Radiological Sub-Committee of the Cancer Commission met in Geneva and adopted proposals for the compilation of accurate statistics and for the organisation of a campaign against cancer of the uterus.

A report has been printed describing the methods of treatment used in three important Radiological Clinics at Paris, Munich and Stockholm and containing recommendations as to treatment for the guidance of other clinics.

During the same month, the Expert Committee on Infant Welfare met at Rome and prepared a report in which were summarised the general principles which had emerged from the enquiry into infant mortality in the European countries.

The Commission of Expert Statisticians held their second session at Berlin at the beginning of April. Among the matters considered were: preparation for the fourth revision of the International List of Causes of Death, uniform definition of still-birth, morbidity statistics, statistics concerning the results of vaccination by BCG.

Later in April the Joint Commission, comprising members nominated by the International Institute of Statistics and by the Health Organisation, met in Paris and, after consideration of the replies from Governments, prepared three revised draft lists of causes of death for the consideration of the International Conference.

An interchange for the study of industrial hygiene began at Lyons on April 3rd and terminated at Lucerne on May 10th, after visiting important industrial centres in Northern Italy, Bavaria and Switzerland. This interchange was organised jointly by the International Labour Office and the Health Organisation.

The Sub-Commission on Social Medicine of the Mixed Committee for the Study of the Relationship between Health Insurance Associations and Health Administrations made a tour in April to study the methods of co-operation between health services and insurance institutions in Germany and Austria.

The Health Organisation held a session at Geneva from May 2nd to 8th, which was followed by a meeting of the Office international d'Hygiène publique in Paris from May 13th to 23rd.

The Commission on the Fumigation of Ships met in Paris on May 15th and discussed the information and programme of studies presented by its President.

In June, an interchange for the study of the problems of rural hygiene began at Copenhagen. Rural districts in Denmark and the Netherlands were included in the tour, which ended at The Hague with a Conference on July 9th.

In the early part of July a number of experts were called together in Paris to prepare a plan of future investigations into specific immunisation against scarlet fever and diphtheria.

Malaria courses were organised in Hamburg, London, Paris and Rome. Scholarships for the courses were offered by the Health Organisation to a number of medical officers nominated by their health administrations.

<sup>1</sup> Bolivia, China, Greece.

On the invitation of the Government a delegation of the Malaria Commission sailed for India in August. A comprehensive programme of study was carried through, terminating on December 28th.

In September a consultation of Scandinavian Experts on tuberculosis met in Copenhagen, when a discussion took place regarding the mortality from tuberculosis in their respective countries, and the efforts made to combat the disease were explained.

## II. COUNCIL DECISIONS ON THE WORK OF THE HEALTH ORGANISATION.

During the fifty-fourth session the Secretary-General informed the Council that the Minister of Health in the National Government of the Republic of China had invited the Medical Director to become a member of an International Advisory Council of Three whose duty it would be to advise the Chinese Minister of Health as occasion demanded. The invitation expressed the hope that the Medical Director would be able to accept an invitation to visit China in the near future.

The Council expressed its approval of the action of the Secretary-General in authorising the Medical Director to accept this invitation.

At its fifty-fifth session the Council accepted with thanks a gift of \$500 from Mr. James Forstall towards the expenses of the Eastern Bureau of the Health Organisation.

At this session, the Council approved a report on the work of the Health Organisation during its fourteenth session. The report dealt with various activities of the Health Organisation. In regard to sleeping-sickness, the Council noted that the assistance of the Health Organisation had been made available for the Administrations of African possessions in their work of safeguarding human life in Africa.

The Council expressed its pleasure that the enquiry into the causes of infantile mortality had been completed in the European countries, where it was undertaken, and had yielded results of particular importance to the various health administrations.

Reference was made to the recommendation that the health administrations of other countries should be invited to undertake similar studies and to the fact that these studies had been concluded in Brazil and were being carried out in Argentine, Chile and Uruguay.

The Council noted with satisfaction that the plan for the sanitary reorganisation of Greece framed by the Health Organisation at the request of the Greek Government had been adopted by that Government, and invited the Health Organisation, in conformity with the Council resolution of December 1928, and in accordance with the desire expressed by the Prime Minister of the Greek Republic on April 18th, 1929, to offer all its technical assistance for the subsequent development of the plan.

At its fifty-sixth session the Council accepted the grant made by the International Health Division of the Rockefeller Foundation to the Health Organisation for the period 1930-1934, and expressed its thanks to the Foundation.

At this session, the Council decided to forward to the Health Organisation for examination and report the letter of the Belgian Government concerning the establishment of an international organisation for the unification of pharmacopœiæ.

The Council had also before it a letter from the President of the Republic of Bolivia requesting the assistance of the Health Organisation in the reorganisation of the sanitary services of his country. The Health Organisation was invited by the Council to assist the Bolivian Government in the preparation of a plan for this work as well as in its later development.

The Council further complied with the request of the President of the Health Organisation that a Portuguese expert be attached to the Committee which is co-ordinating sleeping-sickness investigations.

At its fifty-seventh session the Council extended the term of office of the members of the Health Organisation for six months from January 1st, 1930.

At this session, with a representative of China present, the Council adopted the report of M. Quiñones de León concerning the request of the National Government of the Republic of China for a Commission of Experts from the Health Organisation to visit China to make a survey on health conditions in the ports and maritime quarantine. In accepting this request, members of the Council expressed their satisfaction at learning of the establishment of co-operation between the National Government of China and the Health Organisation.

## III. DECISIONS OF THE ASSEMBLY ON THE WORK OF THE HEALTH ORGANISATION.

M. Fierlinger, Rapporteur for health questions to the Second Committee of the Tenth Assembly, referred in his report to the generous assistance given by the Rockefeller Foundation. He told the Committee that a new agreement had been concluded by which the Foundation would place at the disposal of the Health Organisation for a period of five years from January 1st, 1930, an annual

subvention equal to the total already granted to the Organisation in a given year. He went on to point out the progress realised in international co-operation in health matters, and gave various examples from the work done by the Organisation, drawing the Committee's attention to the fact that States Members of the League were now making requests for collaboration with the Health Organisation. These requests, however, caused increased demands on the budget, and he proposed to ask for supplementary credits.

During the discussion which followed, the proposal for supplementary credits was fully approved. Speakers referred to specific aspects of the work of the Organisation in which their countries took a particular interest, and several definite proposals were made. The Japanese delegate, in discussing the relations established between the Health Organisation and Far-Eastern countries, requested that a study-tour might be organised, to be attended by doctors in the quarantine service of the principal Eastern ports. The Indian delegate said that infant mortality was a grave problem in his country and his Government intended to have the question studied with the help of the Health Organisation. The delegates of the Irish Free State and of Italy referred particularly to the work on rural hygiene, and the Italian delegate hoped that it might be possible to establish close relations with the International Institute of Agriculture. The Roumanian delegate proposed the creation of an international institute to study the physical, intellectual and moral development of children in all countries. The French delegate proposed that the Health Organisation should undertake to codify the results obtained in all countries through health instruction and that it should study the problems raised by influenza, which had caused such serious epidemics.

The Second Committee adopted the following resolution, which was subsequently approved by the Assembly (see Report of the Second Committee, document A.67.1929.III):

“ The Assembly:

“ Notes with satisfaction the results achieved by the policy, which the Health Organisation has persistently followed, of concentrating on certain well-defined branches of international public health;

“ It notes, in particular, that the Health Organisation systematically draws practical conclusions from the comparison of national experiences and places those conclusions at the disposal of Governments;

“ It desires to express its appreciation to the health administrations of the different countries as well as to the members of the Health Organisation and to the experts who have contributed to this work;

“ It considers that the Health Organisation is pursuing, from an international point of view, a work of great importance by co-operating and consulting with national health administrations in the different continents;

“ It approves the work carried out by the Health Organisation since the last Assembly;

“ Takes note of the work of the Health Organisation in Latin America and in the Far East; which necessitates the provision of supplementary credits; and

“ Approves the budget estimates relating thereto which have been placed before it. ”

On the report of the Fourth Committee, the Assembly also agreed to the request for supplementary credits for liaison with Latin America and for technical enquiries in the Far East.

Mention was made of the Health Organisation in the report of the Fifth Committee concerning the traffic in opium and other dangerous drugs. The Assembly decided that the report of the Advisory Committee on the Traffic in Opium and other Dangerous Drugs “ will be submitted to the Council, which will decide on the convening of a Conference of the Governments, in whose countries the drugs are manufactured, and of the principal consuming countries in a number not exceeding that of the manufacturing countries, and whether certain experts proposed by the Opium and the Health Committees should be included ”.

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## Chapter II.

### I. THE SERVICE OF EPIDEMIOLOGICAL INTELLIGENCE AND PUBLIC HEALTH STATISTICS.

#### A. GENEVA.

During the year, the demand for copies of the *Weekly Record* has increased. The *Record* is now appearing in an enlarged form and the subject-matter is somewhat differently arranged. The first pages are devoted to the communiqué received each week from the Director of the Office international d'Hygiène publique. This communiqué contains a comprehensive statement of information received under Articles 1, 2 and 4 of the International Sanitary Convention 1926, together with information concerning rodent plague, miscellaneous intelligence items and a list showing for ports the date of the last case, notified during the month preceding the communiqué, of plague, cholera, yellow fever, typhus and smallpox.

The pages which follow contain a summary of information received during the week by the Health Section. This summary takes the form of a short description of the epidemic situation of those diseases which are of primary importance at the time in the countries in respect of which information is available.

During the year the situation in regard to influenza, poliomyelitis, cerebro-spinal meningitis, and encephalitis lethargica in Japan has been especially described in many successive issues of the *Record*. Short descriptions of the position in regard to malaria and of psittacosis have also appeared.

The last pages of the *Record* contain the information received by telegraph from the Eastern Bureau at Singapore.

In addition to the *Weekly Record* daily reports have been issued. During the influenza epidemic the information received was of such importance as to warrant the issue of a report each day until February 19th. Subsequently special reports have been issued somewhat less frequently to supplement the *Weekly Record* when the nature and importance of the information received has made this necessary.

Up to the beginning of December direct telegraphic information was received weekly from the Regional Bureau at Alexandria and inserted in the *Weekly Record*. Since that date, the information has been communicated direct to the Eastern Bureau at Singapore.

The *Monthly Epidemiological Report* has, during the year, contained a number of articles devoted to the more important communicable diseases: enteric fever, diphtheria, scarlet fever (2), smallpox (2) and typhus.

In addition, an extensive bibliography has been added.

At periodic intervals the epidemiological situation in relation to the so-called dangerous infectious diseases has been reviewed.

The development of the monthly report along these lines makes it possible to limit the matter contained in the *Annual Epidemiological Report* to statistical tables.

These are sent to the various health administrations and statistical departments for correction before publication.

#### B. EASTERN BUREAU AT SINGAPORE.

##### *Intelligence Service.*

The Intelligence Service has shown further development during 1929 as evidenced by the increase in the amount of information collected and distributed.

Two additional ports have been added to the list from which information is received, namely, Baghdad and Vladivostock. It should be mentioned, however, that the list of ports published in the *Weekly Fasciculus* of the Eastern Bureau does not include some of minor importance which also send telegraphic information, the total now being 145.

The actual position is that the occurrence of grave infectious diseases in any of the ports (except certain Chinese ports) within the zone of the Bureau is notified telegraphically. In regard to these the position has improved as a result of the study of port services made by the Health Organisation on the request of the National Government of China.

*Information in regard to Particular Diseases.*

1. *Cerebro-spinal Meningitis.* — The outbreak of this disease at Shanghai in 1929 led to an enquiry regarding the possible spread of the disease to other ports, and inclusion of the information so obtained in the weekly broadcast.

2. *Epidemic Encephalitis.* — The position in regard to this disease in Japan was reported in the weekly cables received from the Central Sanitary Bureau, Tokio, from the commencement of the outbreak in September.

3. *Plague, Cholera and Smallpox.* — The number of cases and deaths in various Indian provinces has been communicated weekly through the Office of the Public Health Commissioner for India.

4. *Information received by Post.* — There has been an improvement in the regularity with which postal returns from health administrations have been received, which has facilitated the compiling of information.

Thirty-two countries<sup>1</sup> are now sending, for their whole area, information regarding the epidemiological situation.

5. *Distribution of Epidemiological Intelligence by Wireless Broadcasts.* — There has been no change in the number of broadcasting stations<sup>2</sup>, messages from which are being regularly picked up by thirty health administrations.

Since March 1929, a summary in clear of infectious diseases and quarantine notifications from ports within seven days' steaming from Hong-Kong has been broadcast from Cape d'Aguiar station. The International Office of the Telegraphic Union, Berne, has agreed to enter in the next issue of the "List of Stations performing Special Services", under a new sub-heading, namely, "Epidemiological Intelligence", the names of the wireless stations broadcasting the Singapore message in clear.<sup>3</sup>

Information received from ships' captains and ships' surgeons indicates that it is desirable:

1. That the summary in clear should include information as to the number of cases and deaths from plague, cholera or smallpox in infected ports;
2. A complete list of ports, against which quarantine measures are actually in force, should be given;
3. The broadcast should be sent so that every ship may be able to pick it up.

Compliance with the second of these suggestions is not always possible, as various Eastern ports do not issue quarantine notifications against foreign ports.

*Ships having on board Patients with Infectious Diseases.*

It was possible in thirty-seven instances to telegraph to the next port of call advising the arrival of a steamer on which a major infectious disease had occurred.

During the year 174 ships have notified the presence of infectious disease on board. In 64 instances the disease was smallpox; in 31 chickenpox; and in 27 cholera.

*Functions as a Regional Bureau under the Terms of the International Sanitary Convention, 1926.*

During the year New Caledonia and dependencies signified their intention of becoming associated with the Bureau for the purposes of the Convention. Reciprocal arrangements for the supply of notifications under the Convention have also been made with the health administrations of the Union of South Africa, Tanganyika and Ceylon.

*Co-ordination of Medical Research Work in the Far East.*

1. *Use of Dry Smallpox Vaccine.* — Information which has been collected on the use of this form of vaccine indicates that satisfactory results have been obtained in a number of countries (eleven in number)<sup>4</sup> where it has been tried, but that others found it unsuitable.

<sup>1</sup> Anglo-Egyptian Sudan,  
Austral-Pacific Zone,  
Australia,  
British Somaliland,  
Ceylon,  
Egypt,  
Federated Malay States,  
Formosa,  
French Indo-China,  
Hong-Kong,  
India,

Iraq,  
Japan,  
Nyasaland,  
Kedah,  
Kelantan,  
Kenya,  
Korea,  
Kwantung Leased Territory and  
South Manchurian Railway Zone,  
Madagascar,  
Netherlands East Indies,

New Zealand,  
North Manchuria,  
Johore,  
Panama Canal Zone,  
Persia,  
Philippine Islands,  
Shanghai,  
Siam,  
Straits Settlements,  
Tanganyika,  
Union of South Africa.

<sup>2</sup> Antanarivo (Madagascar), Karachi, Malabar (Java), Nauen, Saigon.

<sup>3</sup> Hong-Kong, Karachi, Madras, Malabar, Sandakan, Shanghai, Tokio.

<sup>4</sup> Angola, Belgian Congo, China, French Equatorial Africa, French India, French Indo-China, French Somaliland, Mozambique, Netherlands East Indies, Philippine Islands, Portuguese India.

A point in its favour which medical officers strongly emphasise is that, if kept *in vacuo*, it remains potent indefinitely.

2. *Plague.* — Professor K. Ishiwara, Chief of the Plague Division, Government Institute for Infectious Diseases, Tokio, has been appointed a member of the Plague Expert Commission. Experimental work on the susceptibility of local rats to plague is to be carried out by Dr. Gilmour, Municipal Bacteriologist, Singapore.

Copies of the plague number of the *National Medical Journal of China* (June 1929) containing a report on an expedition into the plague focus of Tungliao as well as clinical and laboratory observations made there by the staff of the Manchurian Plague Prevention Service have been transmitted to members of the Expert Commission.

3. *Bacteriophage.* — The results obtained by various workers with bacteriophage strains isolated by Dr. d'Herelle and Lt.-Col. Morison have been collected in the form of a note, which also gives an outline of the present position.

#### *Risk of Accidental Spread of Yellow Fever in the East.*

Information has been received from the Philippine Islands, Japan, Formosa, Siam, Federated Malay States, Straits Settlements and Indo-China that it is not intended to undertake experimental work on the virus of yellow fever.

It is understood that the Government of the Netherlands East Indies proposes to prohibit the importation and possession of any material containing this virus.

#### *Action by the Health Organisation.*

The Far-Eastern Commission during the fourteenth session of the Health Organisation in May 1929 considered the Minutes of the fourth session of the Advisory Council and the annual report of the Director for 1928. The Commission approved the resolutions adopted by the Advisory Council and expressed appreciation of the action of those countries which had continued their financial contributions towards the upkeep of the Bureau. It suggested that Mr. Forstall's donation of 500 gold dollars be devoted to some special object of research in which the Bureau is interested.

The Health Organisation subsequently adopted the following resolution:

"The Health Organisation approves the report of its Far-Eastern Commission and the resolutions adopted by the Advisory Council of the Eastern Bureau at its fourth session held in Singapore from February 14th to 16th, 1929, together with the budget estimates for 1930 attached thereto."

#### *Fifth Session of the Advisory Council, held at Bandoeng, February 18th to 28th, 1930.*

The generous invitation of the Government of the Netherlands East Indies to hold the fifth session at Bandoeng was accepted. During that session the following were elected:

Chairman for 1930: Dr. VAN LONKHUYZEN, Chief of the Medical Service of the Dutch East Indies;  
Vice-Chairman for 1930: Dr. GUÉRIN, Director of the Health Service at Cholon (Indo-China).

The resolutions which were adopted will be found in Appendix VII.

## II. PUBLIC HEALTH STATISTICS.

The Annual Report for 1928 (page 10) gives particulars of the earlier preparatory work carried out by the Health Organisation in connection with the revision of the International List of Causes of Death.

The meeting of the Commission of Expert Statisticians at Berlin on April 3rd, 1929, had under discussion:

1. Preparation of the fourth revision of the International List of Causes of Death (co-operation between the Health Organisation and the International Institute of Statistics),
2. Questions relating to the uniform definition of dead-birth.
3. The problem of morbidity statistics and the establishment of a nomenclature of diseases.
4. The collection and analysis of data concerning the results of BCG vaccination.

### *I. Fourth Revision of the International List of Causes of Death.*

The Commission of Expert Statisticians considered the replies of Governments on the two lists of causes of deaths previously proposed by that Commission (with 90 and 27 rubrics respectively). In view of the agreement reached between the International Institute of Statistics and the Health Organisation for joint study in the preparation for the fourth revision, the Commission

referred the replies received to the Joint Committee with a request to prepare a short statement on the history of the International List. It further expressed a wish for a permanent co-operative arrangement for the study of questions relating to the International List of Causes of Death.<sup>1</sup>

## 2. *Uniform Definition of Dead-birth.*<sup>2</sup>

The definition of dead-birth, as proposed by the Health Organisation in 1925, having been found satisfactory, was recommended for adoption by countries in which there are no important legal or practical objections. In other countries, in addition to the statistics of dead-births based on the legal definition another tabulation should be made, based on the definition proposed by the Health Organisation, in order to find out the effect of the difference existing between the two definitions.

## 3. *Morbidity Statistics.*

The Commission of Expert Statisticians had received a considerable amount of information on the situation of morbidity data in various countries. After consideration of: (a) the results of the preliminary enquiry regarding morbidity statistics in various countries, (b) a memorandum from Dr. Roesle on the comparative study of morbidity (document C.H. 730), and (c) a report by Dr. Teleky on the morbidity statistics in the Rhineland sickness-insurance funds (document C.H. Exp. Stat./88), the Commission came to the conclusion that at present, since the available data on morbidity were incomplete and referred either to small areas of a country or to a limited group of population, a complete solution of the question was not yet possible. The special Sub-Commission appointed for the study of morbidity statistics recommended:

(a) That alphabetical lists of the names of diseases and pathological conditions used by physicians be prepared by each country.

(b) That each country be invited to undertake the preparation and application of a systematic classification of diseases and pathological conditions according to some such list as the International List of Nosology and Causes of Death, as adopted in October 1929 in Paris for the following ten years, or a list which may be specially proposed for the purpose of morbidity statistics and based upon the International List.

(c) That the Health Organisation collect data relating to causes of morbidity from various countries together with such classifications as are in use for the eventual preparation of an international list suitable for general application.

(d) That special studies be undertaken into the prevalence of those diseases which present an important public health problem, taking into consideration all relevant factors such as age, sex, social standing and mortality.

## 4. *Statistical Appraisal of Data Concerning the Results of Vaccination by Means of BCG.*

The resolution of the Clinical Commission of the International Conference on Vaccination against Tuberculosis by Means of BCG (held in Paris in October 1928) was submitted to the Commission of Expert Statisticians with the request that the latter should indicate the most reliable methods of collecting and collating morbidity and mortality data concerning infants who had been vaccinated against tuberculosis by means of BCG as well as of infants not so vaccinated.

To facilitate the work of the Commission in this regard, the Chairman, Dr. Westergaard, held a preliminary consultation with Dr. S. Rosenfeld and Professor A. Schlossmann (Director of the Clinic for Diseases of Children, Düsseldorf).

After considering the views expressed by these experts the Commission adopted the following resolutions:

“ The Commission of Expert Statisticians has considered the request for advice presented by the Clinical Committee of the BCG Conference on the best statistical method for appraising the prophylactic value of BCG vaccination against tuberculosis and the suggestions offered by the special Sub-Committee formed to study this point.

“ It is of the opinion that:

“ 1. Any enquiry for the purpose of appraising the prophylactic value of a specific procedure, such as BCG, must be conducted according to the procedure of scientific experiments, and its results must be judged by the application of rigorous statistical methods:

“ (a) It is essential to use the method of sampling in selecting experimental (vaccinated) and control (unvaccinated) groups, preferably by vaccinating alternate infants in tuberculosis families, in which the factors referred to in the special Sub-Committee's report (document C.H.BCG.37) are comparable.

<sup>1</sup> See end of the chapter for description of the International Conference called by the French Government, and held in Paris in October 1929, to revise the International List of Causes of Death.

<sup>2</sup> A dead-birth is the birth of a foetus, after twenty-eight weeks' pregnancy, in which pulmonary respiration does not occur; such a foetus may die either: (a) before, (b) during, or (c) after birth, but before it has breathed (report of the Committee studying the definition of dead-birth, April 1st, 1925).

"(b) Both experimental and control groups should be *continuously* observed for the entire period of the study with the utmost care by competent diagnosticians and other qualified persons for the detection of tuberculosis in the infants and in persons with whom they are in contact, and for observing changes in the conditions that may affect the tuberculosis situation in the households considered.

"(c) Provision should be made for adequate statistical assistance throughout the entire study in order that proper consideration be given to its statistical phases, such as the preparation of forms suited to local conditions for recording all observations, the significance of the numbers included in the groups, the use of life tables or other methods in expressing and estimating results, etc.

"It is assumed that uniform practice in diagnosis, in autopsy determination of causes of death, and in other details of professional observations, will be strictly followed for the experimental and the control groups of infants and for the households in which they are found.

"2. For the scientific conduct of such an enquiry it is essential that it be made under a responsible director with competent medical, statistical and other associates who will assist in collecting and analysing the original records.

"3. While observations carried on according to this procedure for a comparatively short period, such as two years, on a sufficiently large number of infants should yield definite conclusions as to the protective value of BCG vaccine within these ages, it is desirable to continue such observations for a period of not less than five years in order to ascertain the duration of the protection conferred.

"4. In accordance with the recommendations of the Clinical Committee of the BCG Conference, the detailed results of each enquiry, together with the original records, should be forwarded before publication to the Health Organisation."

### III. STATISTICAL PUBLICATIONS.

In the *Statistical Handbook Series*, No. 11, "Official Vital Statistics of Ireland" (the Irish Free State and Northern Ireland, document C.H.741), and No. 13, the "Official Vital Statistics of Scotland" (document C.H.771) have been published.

The "Statistical Handbook for Canada" is now being printed, while that for the German Reich is being revised by the competent German authorities.

### IV. INTERNATIONAL CONFERENCE FOR THE FOURTH DECENNIAL REVISION OF THE INTERNATIONAL LIST OF CAUSES OF DEATH.

*Held at Paris from October 16th to 19th, 1929.*

This Conference was called by the French Government, which had invited the Health Organisation of the League to co-operate with the International Institute of Statistics in the preparatory work entailed by this revision.

The Conference<sup>1</sup> adopted three lists—a detailed, an intermediate, and a short list—containing 200, 85 and 43 headings respectively, as well as the Nomenclature of Causes of Death (with 13 headings divided into three groups) as recommended by the Joint Commission consisting of representatives of the Health Organisation and the International Institute of Statistics.

As regards a nomenclature of morbidity, no separate list was compiled, but a division of certain headings in the List of Causes of Death was established for the use of morbidity with a view to securing comparability of the statistics of causes of death.

The Conference recommended that causes of death should be tabulated according to age and sex and the following age-groups were suggested: Under one year; one to four years; five to nine years, etc.; 65 years and over.

In the case of countries unable to employ so detailed a method, the age-groups recommended were: Under one year; one to four years; five to fourteen; fifteen to twenty-four, etc., sixty-five and over. In case of inability to use either of these methods, it was recommended that at least deaths under one year should be shown separately.

The Conference further recommended that:

(1) Practising physicians and medical students should be instructed in the principles of filling in the death certificates;

(2) The consideration of a uniform death certificate should be postponed until further experience had been gained in various countries;

<sup>1</sup> Delegates from the following countries were present: Australia, Austria, Belgium, Brazil, British India, Canada, Chile, China, Cuba, Czechoslovakia, Denmark, Dominican Republic, France, Great Britain and Northern Ireland, Greece, Hungary, Italy, Japan, Latvia, Luxemburg, Mexico, Morocco, Netherlands, Norway, Panama, Paraguay, Persia, Poland, Portugal, Spain, Sweden, Switzerland, Tunis, Turkey, United States of America, Union of Soviet Socialist Republics, Uruguay, and Venezuela.

The following international organisations were also represented: the Health Organisation of the League of Nations; the International Institute of Statistics; the League of Red Cross Societies; and the Office international d'Hygiène publique.

(3) In cases of death occurring after a surgical operation, the nature of the operation as well as the cause of death should be stated in the certificate;

(4) The death certificate should give the last professional occupation of the deceased, as well as the circumstances which preceded or accompanied death by accident; and this should be given at least for the principal causes of death and accident, if the accident were considered as due to the occupation followed by the deceased;

(5) Morbidity statistics should be studied by a special international conference when these had become more complete in a larger number of countries.

The Government of the United States of America was requested by the Conference to collect and compile the codes regarding the classification of joint causes of death used in various countries.

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### Chapter III.

## TECHNICAL CO-OPERATION WITH THE HEALTH ADMINISTRATIONS OF VARIOUS COUNTRIES.

### I. PROPOSALS OF THE NATIONAL GOVERNMENT OF THE REPUBLIC OF CHINA FOR COLLABORATION WITH THE LEAGUE OF NATIONS IN HEALTH MATTERS.

On August 29th, 1922, the Health Committee, on the proposal of its Japanese member, decided:

“ . . . to collect information regarding the incidence of epidemic diseases, especially those of international importance in important ports (of the Far East), and the measures taken to prevent the transmission of these diseases to other ports.”

A member of the Health Section was despatched to the Far East for this purpose, and his report contains detailed information on these subjects in the ports of Canton, Shanghai and Newchang, as well as an outline of the central sanitary administration existing in Peiping at that time.

These studies of port health conditions in the Far East led to the establishment of the Eastern Bureau of the Health Organisation at Singapore (1925), which has since kept in touch with the central and local sanitary authorities in China.

In 1925, the Medical Director of the Health Organisation, who was in Japan during the “Interchange”, was invited to visit Peiping to discuss the possibilities of setting up a national quarantine service which might serve as the nucleus of a modern public health service. Discussions took place with the Minister of the Interior, who was responsible for the direction of the Central Sanitary Bureau, with other State officials and with public health and medical leaders. Further action along this line was delayed during the ensuing period of civil war, but in October 1928 a Ministry of Health was established in the National Government, and this Ministry, as a result of the previous discussions, decided to avail itself of the experience of the League's Health Organisation.

In January 1929, the Medical Director of the Health Organisation was appointed member of an International Advisory Council of Three by the Chinese Ministry of Health and was invited to come to Nanking, as soon as possible, to discuss plans for co-operation. Official correspondence ensued and resulted in a telegraphic request addressed to the Secretary-General of the League by the Foreign Minister of China, on September 14th, 1929, for the:

“ Despatch of a sanitary mission from the Health Organisation to make a survey on port health and maritime quarantine.”

This request having received the approval of the Council, the Secretary-General, after consultation with the President of the Health Committee, instructed the Medical Director and a member of the Health Section to proceed to China to discuss with the competent authorities a detailed project to be submitted to the Health Committee.

#### SCOPE OF THE ENQUIRY IN CHINA.

The programme of the enquiry as well as the itinerary was established by the Minister of Health, who detailed members of his staff to accompany the mission. His programme included:

1. A preliminary survey of the quarantine arrangements at certain ports, and an examination of the steps to be taken for the establishment of a National Quarantine Service.
2. A general study of the organisation and working of medical and sanitary institutions in various special municipalities and administrative divisions, with special reference to medical education, to the training of sanitary personnel, to the status of a provincial health organisation, to the work of the National Epidemic Prevention Bureau, and to the problem of the control of cholera and smallpox in the Shanghai area.

The itinerary included visits to the following ports and centres between November 9th, 1929, and January 4th, 1930:

Ports: Shanghai, Tientsin, Tsingtao, Antung, Amoy and Canton.  
Other centres: Nanking, Peiping, Wusih and Hangchow.

Before leaving China on January 4th, 1930, the Medical Director received the following letters from the Ministers of Health and Education containing the proposals of the National Government of the Republic of China for collaboration with the League of Nations in health matters.

" MINISTRY OF HEALTH,

" Nanking, December 26th, 1929.

" In acknowledgment of your letter of December 16th, confirming your understanding of our proposals for collaboration, I am pleased to be able to inform you that this programme was approved by the Government on December 24th, and that steps are being taken to secure an extraordinary appropriation for the establishment of the various institutions necessary for its success. I am attaching the approved proposals for you to present to the League of Nations Health Committee for confirmatory action. I am seeking the necessary authorisation to attend the forthcoming session of the Health Committee at Geneva, when the plan is coming up for discussion.

" May I avail myself of this opportunity to express the appreciation of the Government for the spirit in which the League acceded to its invitation to send your Mission to China. The members of the Government, most of whom had had opportunities of discussing pertinent phases of the proposals with you, expressed not only admiration for the manner in which the Mission had acted upon our specific suggestions, but felt that, almost as important as the results of your visit, has been the increased appreciation of the League itself. To the Mission, and especially to yourself, the Ministry of Health wishes to record its appreciation for the very signal service that has already been rendered.

" The Ministry of Health would gladly follow your suggestions as to the designation of medical and health leaders in China for association with specific studies engaged upon by the League and would recommend that Dr. F. C. Yen, the Dean of the Central University Medical College, be associated with studies of the Commission on Education in Hygiene and Preventive Medicine; Dr. Robert Lim, Professor of Physiology at the Peiping Union Medical College, and President of the National Medical Association, with the work of the Health Committee on vitamins and cognate subjects; Dr. Tsu Min Yi, Member of the Central Executive Committee, with the studies on physical education; and Dr. Shisan F. Fang, former Director of the National Epidemic Diseases Prevention Bureau, with the work of the Commission on social medicine.

" The Government has learned with satisfaction of the appointment of one of the Ministry's officers to the Health Section of the Secretariat, and more especially that you yourself could visit China periodically.

" (Signed) J. HENG LIU."

*" Proposals for Collaboration with the League of Nations Health Organisation.*

" 1. The presentation to the Government of the proposals of the Ministry of Health for collaboration with the League of Nations Health Committee was made the occasion for re-defining the general scope of the work of the Ministry, including the manner in which the League's assistance would contribute to its success. It was pointed out that, before effective nation-wide results could be achieved in such fields as child, school, and industrial health, social hygiene, vital statistics, general sanitation, epidemiology and communicable diseases control, etc., there were two necessary prerequisites: first, the development of administrative principles best adapted to local means and conditions and, second, the provisions of facilities for training personnel in the different branches of medical practice.

" 2. While the Ministry, within the limitations of the reconstruction period, is undertaking the functions of a central health authority in regard to initiating policy and activities in the above general fields of public health, it feels that the collaboration of the League at this time would prove invaluable in the following six activities:

" (a) The previous decision of the Government to transfer the Quarantine Service, now administered by the Ministry of Finance, to the Ministry of Health, in concurrence with established precedent, led to the request for the League's collaboration in obtaining the benefit of the experiences of health services in other countries and in accelerating the building-up of confidence in the reorganised technically improved port health administration. It is requested that the Health Organisation should study, in conjunction with the Transit Organisation of the League, the steps that should be taken in the transfer and reorganisation of the present Quarantine Service. It is understood from the Director of the Health Organisation that a scheme may be elaborated during 1930 and that the preliminary study begun by the present Mission will be completed this year. The Ministry hopes also to participate in the forthcoming Port Health Officers interchange and for two or three officers to be trained abroad by the League for responsible posts in the reorganised service.

" (b) The Ministry of Health has decided to use its technical headquarters staff for field activities and to begin by establishing a central field health station as the nucleus of an eventual national field health service. The important rôle that will be played by this central station is appreciated and, as such, even the fundamental activities will take time to build up. Collaboration is desired in drawing up the detailed plan for this station; in providing facilities



for study abroad of officers selected for important positions in this station and the association of an expert from the Health Organisation during the initial stage of its organisation and development.

" (c) In view of the necessity of providing a national institution for undergraduate instruction and for post-graduate training, as well as to create national traditions in administering such institutions, the Government has decided to promote the establishment of the First National Hospital.

" (d) While the central field health station and the First National Hospital will serve the purpose of establishing the principles of fundamental health activities for the country, and while, already, institutions elsewhere have undertaken health work on a more limited scale, it is felt that the elaboration of a provincial health administration should be taken up for serious study, and the Government has decided on collaboration with one of the provinces where conditions are favourable. It is already the intention of the Chekiang Government to establish a provincial hospital, which will also be utilised as a base for the development of preventive medical activities. It is hoped the latter will be extended gradually to the districts of the province, and also throughout the country by utilising existing educational institutions as bases for public health work.

" Assistance is desired in planning the first National and Chekiang Hospitals, in providing facilities for their senior administrators to study abroad and especially in advising as to the gradual extension both of the preventive activities of the Chekiang unit as well as in the extension of the activities to other areas.

" (e) The Ministry of Education regards medical education as a major question which requires urgent reform in providing suitable facilities both in regard to undergraduate and post-graduate instruction. It is hoped to secure the collaboration of the competent commission of the Health Organisation in preparing a memorandum on the recent progress in the reform of medical teaching; for the provision of facilities for a study-tour of the officer who is to have charge of post-graduate instruction, and for the delegation to China, for a period of some months, of a League expert to advise with the National Commission on Medical Education of the Ministry of Education.

" (f) While the foregoing will build up the foundations for a modern health administration, there is the immediate problem of smallpox and cholera control in Shanghai. During the stay in China of the League's Mission, the Ministry invited the collaboration of the Health Services of the two Foreign Settlements, and it is hoped it may be also possible that, as a member of its Advisory Council, the Chinese Government may secure the collaboration of the Far-Eastern Bureau of the League. Collaboration is also desired in a joint epidemiological study of the cholera and smallpox situation in Shanghai, and the services of the Director of the Far-Eastern Bureau for a time during the application, in 1930, of control measures.

" 3. It is therefore hoped that it may be possible for the League to provide advice and assistance along lines on which it has been made available to other countries, namely:

" (a) The technical collaboration of the Health Organisation and its commissions, as well as other technical organisations of the League, for consultation in drawing up specific health schemes;

" (b) To make available opportunity for participating in the advantages offered through the League interchanges of technical officers, and study fellowships;

" (c) Collaboration in the establishment and the development of the central field-station by stationing a technical officer of the Health Organisation in an advisory capacity during the initial stage;

" (d) Collaboration with the Commission on Medical Education of the Ministry of Education. A request from the Minister of Education is attached herewith.

" 4. It is especially desired that the services of the Health Organisation for the study of these problems, as well as in a general advisory capacity, will be available through an acceptance by the League of this Government's invitation for continued collaboration.

" Nanking, December 24th, 1929. "

" MINISTRY OF EDUCATION,

" Nanking, December 27th, 1929.

" Realising that the subject of Medical Education in China needs to be studied thoroughly so that standards may be improved and a sufficient number of competent physicians trained to meet the medical needs of the country, the Ministry of Education, with the collaboration of the Ministry of Health, is organising a National Commission on Medical Education.

" We request that the Health Organisation of the League will give this Commission assistance in:

" (a) Supplying information on the programme of similar National Commissions in other countries; and

" (b) Collaboration of the League's Commission on Education in Hygiene and Preventive Medicine, which perhaps may be able to delegate an expert for several months in the coming year to China to work in conjunction with our National Commission.

" (Signed) CHIANG MON-LIN,  
Minister of Education. "

The extraordinary appropriation referred to in the letter of the Minister of Health amounting to one million dollars (Mexican) has since been granted for the establishment of the institutions necessary to the carrying out of these proposals.

#### ACTION OF THE HEALTH COMMITTEE.

The Health Committee met in special session on March 5th to 8th, 1930, to consider these proposals and to discuss the report of the Medical Director on his visit to China (see document C.118.M.38.1930.III). In addition to the proposals of the Government of China, this report contains chapters on public health and modern medicine in China, on medical education and on health organisation and procedure in certain Chinese ports.

The following resolutions were adopted by the Health Committee:

A. "The Health Committee,

"After studying the proposals of the National Government of the Republic of China for collaboration which it desires with the League of Nations on health matters, and having examined the report of the Medical Director concerning the Mission carried out on the invitation of the Government of China;

"Approves the report as a whole and expresses appreciation of the attitude adopted by the Government of China."

"The Health Committee,

"Considering that the Council of the League of Nations has expressed the wish that all necessary assistance should be afforded in the development of China,

"That the collaboration requested is entirely in harmony with the programme and aims of the technical organisations of the League of Nations, and, while fully appreciating the difficulties of the task with which it would be entrusted and the length of time required to accomplish it;

"Recommends to the Council the approval of the entire programme of collaboration presented by the Government of China as set forth in the report of the Medical Director, and requests the latter to make arrangements for providing the assistance of the Health Organisation in giving effect to that programme if approved by the Council."

B. *Reorganisation of the Quarantine Service of the Chinese Ports.*

"The Health Committee,

"After study of the proposals of the National Government of the Republic of China concerning the collaboration of the League of Nations in the reorganisation of the quarantine services of the Chinese ports; and on the advice of the Commission for Quarantine Measures in China nominated during the present session:

"1. Accepts the proposals made by the Chinese Government to obtain the benefit of the experiences of health services in other countries in the reorganisation of the present quarantine services.

"2. Approves the arrangements proposed by the Health Section that Dr. Park should visit China forthwith in order to complete the survey which has already been begun and report to the Commission thereon at an early date. In his report, Dr. Park should give special consideration to the possibilities of the satisfactory application of the provisions of the International Sanitary Convention of 1926.

"3. Notes that the Commission has given Dr. Park certain guiding lines for this survey. These include the sanitary equipment of ports; the nature of the action to be taken against the importation and exportation respectively of infectious diseases and the measures needed to deal with the special conditions of coastal traffic.

"Notes that, on the completion of Dr. Park's survey, he will submit proposals for consideration by the Commission regarding the scheme to be submitted to the Chinese National Government.

"4. Requests that the Commission, in so doing, should confer with any experts who may be delegated by the Communications and Transit Organisation of the League, in conformity with the request of the Chinese Government, before submitting the scheme to the Health Committee."

These resolutions came before the Council of the League at its fifty-ninth session on May 15th, 1930. The following resolution was adopted:

"The Council,

"After examining the proposals of the National Government of the Republic of China for co-operation with the League in health matters;

"Accepts the recommendation of the Health Committee that the Council should approve of the entire programme of collaboration presented by the Chinese Government, as set forth in the Medical Director's report, and

"Decides that the Medical Director should be asked to ensure the assistance of the Health Organisation in carrying out that programme."

The following steps have already been taken to give effect to the proposals of the Government of China:

1. Facilities have been granted for the training abroad of Chinese medical officers who will occupy important posts in the quarantine, central and provincial health services. Four of these

officers are already studying in Europe according to a programme arranged by the Health Organisation.

2. The survey of port health conditions in China is now being completed by a member of the Health Section, and Chinese medical officers will participate in the interchange of port health officers in the Far East to be held in July and August 1930.

3. A draft plan for the Central Field Health Station to be established by the Ministry of Health has been submitted for advice to a Conference of Directors of Schools of Hygiene held in Paris from May 20th to 23rd, 1930.

4. An expert from the Health Organisation is proceeding to China in June 1930 to be associated with the work of the Central Field Health Station during the initial stage of its organisation and development.

5. A memorandum is being prepared by the Health Organisation on recent progress in the reform of undergraduate and post-graduate medical instruction in various countries for the guidance of the competent authorities in China.

6. An epidemiologist from the Health Organisation, after a local study of the material available concerning cholera in the Shanghai area, advised on a plan of further studies in order to elucidate the sources of the disease.

7. The Director of the Eastern Bureau at Singapore arrived in Shanghai at the end of April 1930 to assist in the co-operative campaign against cholera and smallpox in the Shanghai area.

## II. COLLABORATION WITH THE GREEK GOVERNMENT IN THE SANITARY REORGANISATION OF GREECE.

The annual report for 1928 contains full information concerning the request of the Greek Government, which was placed before the Health Committee in October and approved by the Council of the League on December 13th, 1928.

To give effect to the resolution adopted by the Council and in conformity with the indications of the Greek Under-Secretary of State for Health, the Health Organisation of the League sent to Athens the Medical Director and a member of the Health Section, accompanied by Professor Haven Emerson of the University of Columbia; Dr. Allen McLaughlin of the United States Public Health Service; Dr. C. L. Park of the Public Health Service of the Commonwealth of Australia; and Professor B. Borčič, Director of the Institute and School of Hygiene at Zagreb.

These experts arrived at Athens on January 25th, 1929, and were requested by the Under-Secretary of State for Health to visit the following districts for the purpose of making detailed enquiries into health conditions:

Macedonia, including the city of Salonika;  
Thrace;  
The Athens-Piræus metropolitan region;  
Patras (city and district);  
Corfu (island and city);  
City of Canea and western region of Crete;  
Epirus (city and prefecture of Janina).

These districts were selected by the Under-Secretary of State for Health as being typical of the country and as lending themselves, for financial and other reasons, to a serious development of the activities of preventive medicine and public health within the near future.

Between January 25th and April 7th, these districts were visited and studied by one or more of the experts, with respect to public health conditions and other factors of importance to their sanitary reorganisation.

The President and Vice-President of the Health Committee, together with Professor Léon Bernard, Sir George Buchanan and the Chairman of the Malaria Commission, who had been asked by the Health Committee to place themselves at the disposal of the Council of the League of Nations and the Greek authorities, in order to study the situation and give advice to the Greek health administration, assembled at Athens on April 7th, 1929, where they were joined by Professor G. Pittaluga, member of the Health Committee and of the Malaria Commission, who was to make a study of certain malaria problems in Greece.

After examination of all the data collected by the experts and an exchange of views with the Under-Secretary of State for Health and his colleagues in Athens, this Commission presented a series of recommendations embodying the advice it had been requested to give.

These recommendations (see document C.162.M.63.1929.III) contain the following provisions:

1. The public health service, to be effective, should be arranged on a new basis and should have new objectives.

2. The technical personnel of this service should consist of men thoroughly trained in the modern practice of hygiene.

3. To meet these needs, the establishment of new technical services and a school of hygiene is indispensable.

4. Pending the completion of this centre, selected Greek medical officers should be given immediate facilities for practical studies abroad. Meanwhile, the principal officers of the centre should be appointed without delay. They should include three instructors with wide experience in general

hygiene and preventive medicine, malaria prevention and sanitary engineering, respectively. It is understood that the Greek Government intends to call upon experts from abroad for these posts.

5. The appointment of the latter will place at once at the disposal of the Government as well as of the authorities administering the special regions competent technical advisers who can be consulted on any matter of public health development, and who would be in the closest association with the health officers referred to immediately above when these officers return from abroad and take up their duties.

6. Simultaneously, suitable men should be selected to be trained as sanitary inspectors, and suitable women to be trained with the aid of the Hellenic Red Cross as hospital nurses and as health visitors.

7. This process of forming a trained public health personnel from which the health service would be recruited would be the first step towards the formation of a Permanent Hellenic Health Service in a few years—say, in 1933.

The experts, after consideration of many alternatives, have outlined a series of proposals regarding the nature and responsibilities of such a service, which the Commission endorses.

8. The practical measures which can be taken now with this as the ultimate objective, in order to make a substantial beginning with public health administration on new lines, are the subject of detailed recommendations.

In effect, the nucleus of the Permanent Hellenic Health Service should be formed at the earliest practicable date. It would consist at the centre of the new Technical Services and the School of Hygiene and in the provinces of the personnel responsible for the areas selected for the application of the scheme. The remaining areas of Greece for the time being would continue under the present administrative regime.

It seems necessary, however, at once to transfer to the existing Central Sanitary Administration those central services which are at present included in other Ministries. These sanitary services could provisionally retain their offices in the several Ministries concerned, but they should be considered as units detached from the Central Sanitary Administration, and they would receive their instructions from the permanent head of that Administration.

9. The existing Central Sanitary Administration would consequently come to be composed of:

- (a) The present administrative sections of the Under-Secretariat of State for Health.
- (b) Detached services now with other Ministries.
- (c) The new Technical Services which will be created, including the School of Hygiene.

10. It is an indispensable condition for the working of a modern and effective health service that it should be fully protected from political influences; such a service ought to be a purely technical service, having at its head a permanent technical chief, and should form the advisory and executive organ of the Government on health questions.

In all countries especially in those which go through a period of intense economic reconstruction, public health activity ought to be considered as an instrument of national progress and, to secure its success, should be systematically co-ordinated with the activities of other State departments. Looking to the authority exercised by the President of the Council of Ministers over every department of the State, there would be advantage in the present Under-Secretariat of State for Health, with its new services, being attached to the Prime Minister's office.

11. It is impossible to form a modern health service without requiring public health officers to give the whole of their time to the requirements of the service or without ensuring that they should receive adequate pay. Temporary contracts should be made with the medical officers who would be necessary when the scheme begins to operate, and they ought to be assured that their salaries will be periodically increased, and that they will receive preferential treatment in the nomination of members of the Permanent Hellenic Health Service if their work has been satisfactory.

12. Finally, it is essential that a special committee should be set up with the object of studying Greek sanitary legislation in order to codify existing laws and render the legislation easier of comprehension and facilitate its enforcement.

The scheme for the reorganisation of the sanitary administration, which follows the above recommendations, describes in detail the proposed new technical services and school of hygiene, to be known collectively as the "Athens Centre", mentioning its functions, enumerating its divisions and giving the personnel of its advisory committee.

The scheme also includes a description of the health services in the prefectures selected for the first application of the plan, gives the budgetary requirements and contains recommendations regarding hospitals, malaria prevention, the campaign against tuberculosis, the quarantine service, labour conditions and social insurance (on the basis of a note prepared by M. A. Tixier, Chief of the Insurance Services of the International Labour Office).

The following correspondence was exchanged between the Prime Minister of the Greek Republic and the President of the Health Committee:

*The President of the Health Committee to the Prime Minister of the Greek Republic.*

[Translation.]

" Athens, April 18th, 1929.

" Sir,

" The Commission of Enquiry appointed by the Council of the League of Nations at the Greek Government's request to assist in the reorganisation of the public health services of Greece has concluded the work with which it was entrusted and has forwarded its report, together with its recommendations, to the Under-Secretary of State for Health. A copy has also been sent to Your Excellency's chief secretary.

" The Commission, while tendering its thanks to the Greek authorities for the welcome extended to it and the facilities it has been granted, would be very grateful if it could be informed of Your

Excellency's views on the conclusions submitted, so that, when it presents its report at the League Health Committee's May session, it may be in a position simultaneously to make known your decision.

"I am, etc.

" (Signed) Th. MADSEN,  
" *President of the Health Committee.*"

*The Prime Minister of the Greek Republic to the President of the Health Committee.*

[*Translation.*]

" Athens, April 19th, 1929.

" Sir,

" I have the honour to acknowledge the receipt of your letter dated the 18th instant, forwarding a plan for the sanitary reorganisation of the country, together with recommendations drawn up by the Health Committee of the League of Nations, in conjunction with the Greek Under-Secretary of State for Health.

" I note with satisfaction that this plan and the recommendations are entirely in agreement with the principles of the programme for the sanitary reorganisation of the country which my Government has had in view ever since it came into power.

" I shall be very pleased, therefore, to ask the Chambers to take the legislative decisions required to give effect to this plan, and to adopt all measures necessary for the application of the recommendations you have submitted to me.

" I concur with your view that it is not possible to establish a modern health service without requiring the medical officers of health to devote their whole time to this service, and consequently without giving them adequate remuneration. Although the application of this principle runs counter to existing administrative rules, the fact that these medical officers give up their right to practise medicine entitles them to special compensation.

" The Greek Government is fully aware that the execution of this plan will have to be proceeded with methodically, and will require a very thorough technical preparation. For this reason, the Government requests the Health Organisation of the League of Nations, in accordance with the Council's invitation in December last, to place at the disposal of the Greek Government all its technical facilities, including its technical commissions, in order to ensure complete co-operation in the subsequent development of the plan which has just been agreed upon.

" I would take this opportunity to tender my heartfelt thanks to you and to the eminent members of the delegation over whose work you preside with such signal ability, as also to the Medical Director of the League of Nations and the highly qualified experts, for the important work they have already accomplished with a conscientiousness and rapidity that do the greatest credit to the organisation of the technical services of the League of Nations.

" I am, etc.

" (Signed) E. K. VENIZELOS,  
" *Prime Minister.*"

#### STEPS TAKEN TO GIVE EFFECT TO THE PLAN OF REORGANISATION.

The legislation necessary to give effect to the proposals outlined above has been adopted by the Greek Parliament, together with the necessary budgetary provisions.

The Government has also called upon experts from abroad to act as principal officers of the Athens Centre. Dr. Norman White, seconded from the Health Section, has been appointed Director, and Dr. Balfour and Mr. Marshall Wright have been appointed to the Divisions of Malariology and Sanitary Engineering, respectively.

A number of Greek public health officers have been given facilities for training abroad by the Health Organisation of the League.<sup>1</sup>

It is expected that courses will be given by the new School of Hygiene, beginning in October 1930.

Attempts to secure a high type of recruit for the nursing services have been successful, and courses for nurses are being arranged.

Steps have been taken to arrange the work in the areas selected for the first application of the plan.

#### ACTION OF THE HEALTH COMMITTEE AND THE COUNCIL.

The Health Committee, which had the report of its Commission before it at its May session in 1929, together with a covering letter by the President (documents C.162.M.63.1929.III and III (a)) adopted the following resolution:

- " The Health Committee,
- " Approves the action taken by the Commission and accepts the conclusions of its report;
- " Expresses its high appreciation of the work of the experts who have undertaken the preparatory work of the Commission;
- " And offers its sincere thanks to the Greek authorities, including their technical officers, for the invaluable assistance which the Commission received at their hands."

<sup>1</sup> Four Greek health officers attended the theoretical and practical malaria courses arranged under the auspices of the Health Organisation. A fifth officer studied in Denmark, Holland, Roumania, Hungary and Italy. The group united for a six weeks' study in Yugoslavia, followed by a visit to Geneva and studies in France, after which they returned to Athens. Other Greek health officers have since taken advantage of these opportunities for study abroad.

At its fifty-fifth session, the Council approved the manner in which the delegation of the Health Committee had acquitted itself of its task, and invited the Health Committee to offer all its technical assistance with a view to the subsequent development of the plan.

### III. THE SANITARY REORGANISATION OF BOLIVIA: REQUEST OF THE PRESIDENT OF THE REPUBLIC OF BOLIVIA FOR CO-OPERATION WITH THE LEAGUE.

On August 20th, 1929, the President of the Republic of Bolivia, in a letter to the Secretary-General, proposed that:

1. The Health Committee of the League should send as its delegate, for a period of six to eight months, a health expert to co-operate with the Bolivian Director-General of Health in the scientific organisation of the public health services.

2. While this preliminary work was going on, the Health Committee would select a health expert to co-operate technically with the Director-General of Health for a further period of two years.

The delegate mentioned under (1) might fill the office mentioned in paragraph 2, if so decided by common consent, in which case he would continue to discharge his duties until the completion of the further two years.

The letter went on to state that in the meantime the Directorate-General of Health would carry on certain urgent preparatory work and, if the proposal were accepted, he would draw up a programme of work and the basis of an agreement to ensure its successful conclusion.

The preparatory work referred to would consist of:

- Vaccination against smallpox;
- Survey of malaria;
- Prevention of hookworm;
- Child welfare;
- The organisation throughout the country of departmental health services.

The work of organisation would deal mainly with the following important problems:

- Establishment of a public health laboratory;
- Prevention of malaria and hookworm;
- Child welfare and perhaps vaccination of infants against tuberculosis by Calmette's method (BCG).

Subsequently, the programme of organisation would include the establishment of a public health institute, consisting of laboratories and a school of hygiene, the latter for the technical training of health officers.

These proposals were accepted by the Council at its meeting on August 31st, 1929, in the following terms:

"The Council expresses its satisfaction that the Bolivian Government, in its desire to extend its action in the reorganisation of the health service of this country, has appealed for the help of the Health Organisation of the League.

"It invites the Health Committee to give, in accordance with the terms of the Bolivian Government's letter, its assistance in the preparation as well as in the later developments of the plan for the reorganisation of the health service of Bolivia" (Minutes of the fifty-sixth session).

In April 1930, delegates of the Health Organisation were sent to Bolivia to co-operate with the Director-General of Health in the work described above.

### IV. REQUEST OF THE BULGARIAN GOVERNMENT FOR THE CO-OPERATION OF THE HEALTH ORGANISATION IN THE CAMPAIGN AGAINST SYPHILIS IN CERTAIN AREAS OF BULGARIA.

On September 6th, 1929, the Bulgarian Government addressed a letter to the Secretary-General asking for the co-operation of the Health Committee in the campaign against syphilis in certain parts of Bulgaria.

Accordingly, a member of the Health Section visited Bulgaria in October 1929 and, after getting in touch with the central health authorities and the Bulgarian Refugees Settlement Commission, went to an area thought to be specially affected in the department of Burgas near the Turkish frontier in company with the chief of the Venereal Disease Service of the Bulgarian Government and the representative in Bulgaria of the Rockefeller Foundation.

The details of the information obtained during this journey are found in document C.H.837.

The problem of syphilis was brought to the attention of the Bulgarian Government through surveys it had undertaken in various places, and the problem had also attracted the attention of the Commissariat for the Settlement of Refugees in connection with its work. Accurate information concerning the prevalence and distribution of syphilis is not known, however, and one of the objects of the campaign is to secure precise data on these points.

Twelve brigades, each consisting of a doctor and two assistants, have been engaged in this survey for some time, but as all cases found are given treatment immediately, the work proceeds slowly. The brigade in the Burgas district, for instance, after four years' work has only completed the survey of a relatively small number of villages. In this district, forty-two villages with a population of 33,000 were examined and 2,343 cases of syphilis were found. The incidence in the different villages, however, appears to vary enormously, so that some were found in which no less than 50 per cent of the people were clinically positive or gave positive Wassermann reactions.

While all forms of the disease were found, the majority of the cases are said to be congenital.

In this district, the rough and isolated character of the country renders surveys and the application of remedial measures difficult, for beyond the sea-coast towns there are no roads, and journeys have to be made in wagons and on horseback.

During the stay of the representative of the Health Organisation in Bulgaria, plans were made by the Bulgarian Government and the Refugees Settlement Commission for more effective survey and treatment of the disease, particularly in the Burgas district, along the following lines:

The Central Health Administration would:

1. Provide personnel immediately for four or five brigades to start work in this district;
2. Provide a bacteriologist for the Public Health Institute at Burgas in order to afford facilities for serological diagnostic work;
3. Send a preliminary report to the Health Organisation of the League at the end of January on the results of the survey up to that time and a final report on the completion of the survey;
4. Send monthly reports to the Refugees Settlement Commission for transmission to the Health Committee;
5. Release the twenty malaria doctors in the Burgas district for two months during the winter to permit them to attend a course in venereal diseases to be arranged by the central health services;
6. Require these malariologists to carry on anti-venereal as well as anti-malaria work, and eventually to consider their suitability for appointment as district medical officers under the new law.

It was understood that the Commissariat for the Settlement of Bulgarian Refugees would:

1. Provide salary and material for the four extra brigades in the Burgas district;
2. Pay the travelling expenses and subsistence allowance of the twenty malaria doctors who would attend the course at Sofia;
3. Consider the possibility of paying the salaries of the extra staff required for treatment purposes when the survey is completed, after the Health Committee has given its advice on this subject;
4. Consider the possibility of continuing to supply the Government with materials necessary to the anti-malaria and anti-syphilitic campaigns from April 1930 to April 1931;
5. Pay the salary of the bacteriologist at the Burgas Institute.

The first report submitted by the Commissioner for the Settlement of Bulgarian Refugees gave some results of the preliminary enquiries undertaken (document C.H.855). This report contained information concerning the examination for syphilis of 75,550 persons, or about one-sixth of the total population of the district.

Of those examined, 1,932 were found to be suffering from syphilis, which represents 2.5 per cent of the total population. Nevertheless, from 40 per cent to 50 per cent of the population of certain villages were found to be affected.

At its fifteenth session in March 1930, the Health Committee adopted the following resolution:

- " The Health Committee,  
" Having noted the report of the Health Section (document C.H.837);  
" Recommends the acceptance of the proposal made by the Bulgarian authorities for the collaboration of the Health Organisation in a campaign to be undertaken against endemic syphilis prevalent in certain areas of Bulgaria;  
" Is glad to note that the Commissariat of the League of Nations for the Settlement of Bulgarian Refugees is prepared to assume responsibility for the expenses involved in the preliminary enquiry, the training of the necessary personnel and the carrying out of the prophylactic campaign;  
" Invites its Commission of Experts on Syphilis and Cognate Subjects to afford all requisite technical assistance, including the placing of the services of an expert at the disposal of the Bulgarian authorities."

## V. CO-OPERATION OF THE HEALTH ORGANISATION WITH THE HEALTH ADMINISTRATIONS OF LATIN-AMERICAN COUNTRIES.<sup>1</sup>

In the annual report for 1928, reference was made to the departure of the secretary of the Leprosy Commission for Latin America early in 1929. The primary object of this visit was to ascertain the position regarding past and present investigations into leprosy and the possibility of co-operation between these countries themselves and, through the Leprosy Commission, between them and other countries which possessed centres for research, particularly in the Far East.

The visit also gave an opportunity of discussing the possibility of establishing more direct relations with the health administrations of the different Republics, more particularly in regard to health problems which were being investigated in European countries under the auspices of the Health Organisation, such as infant mortality, the treatment and serological diagnosis of syphilis, nutrition, etc.

From March to September 1929, Dr. Burnet visited the Argentine, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay and Venezuela. In each State he found that considerable attention was being devoted to public health and social medicine. Difficulty in solving health problems was due to the sparseness of the population in many regions, the long distances that had to be covered, the uncertain means of transport and communication, and the primitive conditions under which large sections of the population lived. Health administrations were handicapped by the lack of full-time health workers, and by incomplete information concerning the incidence of disease and the causes of death.

Nevertheless, considerable interest was everywhere displayed by Governments and public health and medical leaders in the problems selected by the Health Committee for international work. These problems were: infant mortality, leprosy diagnosis and treatment of syphilis, and the preventive aspects of health insurance. In Chile, in consequence of the recent visit of a Japanese expert on nutrition—which was arranged by the Health Organisation—very keen interest has been aroused in that problem.

### INFANT MORTALITY.

Enquiries into the causes of infant mortality, applied to selected areas along the lines of the European enquiry conducted under the auspices of the Health Organisation, have been completed in the Argentine, Brazil, Chile and Uruguay. A final conference of the experts in charge of these enquiries will be held at Lima in 1930 in order to sum up the results, to decide what preventive measures shall be applied on the basis of the findings, and to agree upon the form of the final reports.

A number of child welfare experts from other Latin-American countries<sup>2</sup> will be invited to this conference in order to discuss the possibility of extending the enquiry to those countries. In view of the widely varying conditions obtaining in some of these countries, the possibility of carrying on more limited enquiries may have to be considered. In *Peru*, where in 1927 the infant mortality rate reached 155 per 1,000 births in some districts, the subject is already receiving attention from the public as well as from the Government. A new children's hospital which has been erected in Lima might form a suitable centre for an enquiry similar to that undertaken by the Health Organisation in Europe. In *Bolivia*, this problem is a pressing one, the infant mortality rate at La Paz during the last ten years having been 461 per 1,000 births. There exists an organisation for child welfare whose work might be utilised and extended. In *Colombia* and *Venezuela*, this problem also demands attention, the infant mortality rate in the latter being given as 144 per 1,000 births. *Ecuador* has a special infant welfare service in its public health administration.

In addition to the Latin-American experts, representatives of the Health Organisation will attend the Lima Conference, when the questions set out above come up for discussion.

### SYPHILIS.

In Uruguay there is a well-organised service against syphilis, there being 60 dispensaries throughout the country, subsidised by a special tax. The serological branch of this work is an important one, carrying out from 1,000 to 1,300 tests per week.

A South American Serological Congress will be organised at Montevideo in September 1930 by the Uruguayan Institute for the Prevention of Syphilis, and the Health Committee has been invited by the Government of Uruguay to send a delegate to preside over the Congress.

<sup>1</sup> See also reorganisation of Health Services of Bolivia earlier in this chapter (No. 3).

<sup>2</sup> Bolivia, Colombia, Ecuador, Peru, Venezuela.



Work will be done along the lines of the Laboratory Conference held at Copenhagen for comparing the value of the various methods used in the serodiagnosis of syphilis.

This invitation was accepted by the Health Committee during its fifteenth session held at Geneva in March 1930, and the President was asked to do everything possible to facilitate the work of the Congress as well as to select its presiding officer.

In Peru, the anti-venereal organisation has not been perfected, but the authorities are alive to the necessity of improving it.

In Uruguay, Brazil and Peru enquiries into the treatment of syphilis along the lines suggested by the Commission of Experts on Syphilis and Cognate Subjects might be undertaken to obtain a comparison with European and North American results.

#### LEPROSY.

The secretary of the Leprosy Commission collected much information on leprosy in each Republic. This related to all phases of the subject, such as incidence, epidemiology, legislation, provision of leprosaria and dispensaries, methods of treatment and research work, as well as the resources available in the different countries for the creation of centres for scientific research and its practical application.

From the point of view of leprosy, South America may be divided into three areas:

- A northern area, comprising the Guianas, Venezuela, Colombia and Ecuador;
- A western area, comprising Peru, Bolivia and Chile;
- A south-eastern area, comprising the Argentine, Uruguay, Paraguay and Brazil.

The chief foci in the north are in Venezuela and Colombia. In neither country has a census of lepers been taken, but they are known to be numerous.

In Ecuador the disease is much less prevalent. One centre for the study of leprosy in the north could cover these three Republics.

In the west the disease is much less common. This area, however, might form the centre for epidemiological investigations.

In the south-east, leprosy is a pressing problem in the Argentine and Brazil. In both countries considerable work is being done, but the gravity of the problem in Brazil, the importance of the institute under the control of Professor Carlos Chagas, and the interest shown by M. G. Guinle, who has promised to found an institute devoted to leprosy research, indicate this country as the best site for a centre for scientific, epidemiological, therapeutic and experimental studies. Professor Chagas has already organised researches at his institute into the chemo-therapy of leprosy.

The Health Committee has promised to send a European expert to work at that centre, and he is expected to arrive in 1930.

At Sao Paulo serological researches are being carried out.

At Montevideo, Dr. Scaltritti has decided to extend his serological studies to leprosy with a view to adapting complement-fixation reactions to its early diagnosis.

#### NUTRITION.

There is a proposal to create an institute for the study of nutrition in Chile, in order to undertake a laboratory and field study of this important problem along the lines described by Professor Saiki in the course of his recent visit. The institute of Professor Saiki in Japan was created for a similar purpose.

#### INTERCHANGES AND INDIVIDUAL MISSIONS.

The Health Organisation has continued to utilise these means for establishing a closer liaison with the Health Administrations of Latin-American countries.

#### VI. SURVEY OF HEALTH CONDITIONS IN CERTAIN ISLANDS OF THE PACIFIC.

The International Pacific Health Conference which met at Melbourne in 1926 recommended that the Health Organisation of the League should undertake a health survey of certain islands in the Pacific, and this proposal was approved by the Assembly and welcomed by the Health Committee.

The offer of the Government of the Commonwealth of Australia to make available the services of one of its medical officers was also accepted. The survey was made between October 1928 and April 1929 by the medical officer mentioned above and a second medical officer from the French

colonial service. The investigation took place in Papua, New Guinea, the New Hebrides, New Caledonia, the Solomon Islands and Fiji.

The report (document C.H.820), which has now been published, reveals that three diseases were found to be almost universally prevalent in the areas visited: filariasis, frambœsia and hookworm. Malaria has a definite distribution north of 20°S. and west of 170°E. Leprosy is prevalent in South Melanesia and is also present in northern areas.

Generally speaking, the problems are:

1. Control and investigation of specific diseases such as those mentioned;
2. Education of the natives in medicine;
3. Survival and increase of native races.

The members of the mission were of opinion that within the financial resources at their disposal the health administrations of the islands visited were carrying out routine sanitation along generally accepted lines. Several problems appeared suitable for co-ordinated research:

- (a) Disease problems requiring synchronised local investigations along accepted lines—*e.g.*, hookworm, dysentery, typhoid fever, leprosy and food deficiencies.
- (b) Disease problems beyond the resources of local administrations—mosquito surveys with special reference to malaria and filaria.
- (c) Problems in regard to native education in medicine—infant mortality, depopulation and repopulation, co-operative and auxiliary medical factors.

One of the most important items raised by the enquiry is the need for a comprehensive entomological survey of the whole of Melanesia, which is beyond the resources of the administrations concerned and would require aid from outside.

A copy of the report has been forwarded to the Prime Minister of Australia.

The subject will be discussed at a meeting of the Health Committee when a member of the mission may be present to give explanations.

Questions of special interest raised in the report will be referred to the competent commissions of the Health Organisation.

## Chapter IV.

### WORK OF THE COMMISSIONS

#### I. MALARIA COMMISSION.

##### A. TOUR IN INDIA.

On the invitation of the Government of India, a delegation of the Malaria Commission visited India in 1929 and made a careful study of malaria according to a programme prepared by the competent authorities. The study lasted from August 23rd to December 28th, 1929, and the following participated:

- DR. W. A. P. SCHUFFNER, Director of Tropical Hygiene, Royal Colonial Institute, Amsterdam; Professor at the University of Amsterdam; *Chairman of the group.*
- DR. N. H. SWELLENGREBEL, Chief of Laboratory of Tropical Hygiene, Royal Colonial Institute, Amsterdam; Professor at the University of Amsterdam.
- Surgeon LOUIS WILLIAMS, Head of the Anti-Malaria Service, United States Public Health Service, Richmond, Virginia, U.S.A.
- DR. S. DE BUEN, Professor of Parasitology, Institute of Hygiene, Madrid.
- Major M. PELTIER, Professor of Social Hygiene, School of Sanitary Service for Colonial Troops, Marseilles.
- DR. M. CIUCA, Professor at the Faculty of Medicine, University of Jassy, Roumania; Secretary of the Malaria Commission.

The Commission was accompanied by the Director, and later by the Assistant Director of the Malaria Survey of India, and its work was greatly assisted by the competence of its guides and by the fact that the provincial directors of public health and their colleagues spared neither time nor trouble in placing at the Commission's disposal their extensive knowledge of the local problem, based on long experience and the results of their work, which are of the highest scientific value.

The programme of the investigation, drawn up in its general lines by Major-General Graham, Colonel James and Colonel Christophers, started on August 24th, 1929, with an examination of the epidemiological factors involved in the spread of malaria in the city of Bombay. The study continued in over 140 villages and in a number of towns in the malarial regions of the Presidency of Bombay, the Punjab, the town and province of Delhi, the United Provinces, Assam, Singbhum, Bengal, Burma, the Vizagapatam Agency, the Presidency of Madras, and Mysore. These studies, carried on for the most part at the height of the malaria season, enabled the Commission to secure first-hand information concerning the nature and extent of the problem.

More than 4,000 children and as many adults were examined by the Commission for the purpose of establishing the endemic nature of the disease and the degree of immunity acquired by the inhabitants.

On the one hand, the "human" factor, which includes the widely differing customs, social organisation and working conditions prevailing in the various provinces, and, on the other, the orohydrographic and climatic conditions in their bearing on local anophelism, constitute a variety of local problems which were of the greatest interest to the Commission.

The Commission encountered four main local malaria problems, which were classified as follows:

1. The urban malaria problem;
2. The Punjab problem;
3. The Bengal delta problem;
4. The hill malaria problem.

The solution of the *urban malaria* problem has been found by Bentley and Covell in Bombay, and their work has been confirmed by the findings in other cities. The main vector is *A. stephensi*, which breeds in wells inside houses and in cisterns on house-tops. While it may also breed in other natural and artificial breeding-places, for practical purposes in urban areas it is considered as a well and cistern-breeder only. Apart from complicating factors, dealing with this problem is intrinsically simple and comparatively cheap.

The *Punjab* is characterised by a waterlogged soil subject to serious flooding. This water-logging and flooding form numerous pools, and these, together with the smaller distributing channels, river-beds, disused wells and rice-fields, form the chief breeding-places for anophelids. In the Punjab *A. culicifacies* is in all probability the chief carrier. However, ordinarily malaria

affects the population very little, and the real problem is the occasional outbreak of a severe and widespread epidemic, sweeping over the whole province and causing the mortality to rise to unprecedented heights.

The *Bengal delta* problem is just the reverse of the Punjab problem. The crops in Lower Bengal—rice, cane and jute—are all wet crops. The floods here improve the soil and suit the crops. As a rule, the low-lying flooded areas are healthy and the dry and elevated ones malarious. The two main vectors here are *A. philippinensis* and *A. fuliginosus*. Curiously enough, these vectors occur in both malarious and non-malarious districts with apparently equal density.

The *hill malaria* problem is characterised by a spleen rate of over fifty per cent among the population affected. Moreover, in many instances, malaria is associated with blackwater fever among the immigrants who are common in this region. Malaria in these areas appears in its worst form, if this immigration is not accompanied by adequate medical and economic measures. The anopheline vectors belong to the *funestus* group requiring clear water for breeding.

The Commission prepared a report (document C.H./Malaria/147) on its studies, which will be presented to the full Malaria Commission at Algiers in May 1930, in the presence of members from the public health services of India. This report contains chapters on general aspects of malaria in India, the four chief local malaria problems, examples of malaria control, malaria research in India, and conclusions. The Commission points out that the real malaria problem is in the rural districts, as 90 per cent of the population of India lives in villages.

In the districts through which it travelled, the Commission examined 3,957 children in 79 villages. Its findings are given in the following table:

SPLENIC INDEX AMONG CHILDREN.

Province	Healthy areas not over 10 per cent		Areas of moderate endemicity between 10 per cent and 25 per cent		Areas of high endemicity between 25 per cent and 50 per cent		Areas of hyper-endemicity over 50 per cent	
	Number of villages examined	Number of children examined	Number of villages examined	Number of children examined	Number of villages examined	Number of children examined	Number of villages examined	Number of children examined
Bombay . . .	—	—	1	19	2	54	1	7
Punjab . . .	—	—	2	56	4	132	1	112
Delhi . . . .	2	48	4	205	2	120	3	137
United Provinces .	3	528	1	113	1	45	22	748
Bengal . . . .	1	100	—	—	—	—	8	295
Vizagapatam .	—	—	—	—	3	142	9	560
Madras . . . .	1	44	1	62	1	80	3	205
Mysore . . . .	—	—	—	—	1	51	2	94
Total . . .	7	720	9	455	14	624	49	2,158

Total: 79 villages; 3,957 children.

B. THE ORDINARY WORK OF THE MALARIA COMMISSION DURING 1929.

*Malaria research* has been carried out in several countries along the lines agreed upon by the Commission in June 1928.

The reports of studies made by Dr. W. Fletcher on the "treatment of malaria with cinchona febrifuge, quinidine and cinchonine" and on "plasmochin in the treatment of malaria" by the same worker and Dr. K. Kanagarayer (from the Institute for Medical Research, Kuala Lumpur) have been received from Dr. A. N. Kingsbury, Director of the Institute.

The study on *anophelism and malaria in the delta of the Ebro*, by Professor G. Pittaluga and his assistants, Dr. Zozaya and Dr. G. Vellido, is practically concluded after three years of painstaking observations in the low-lying parts of the delta.

The effect of "intensive quinine treatment" was studied in Rome at the Reale Clinica Medica, by Professor V. Ascoli.

A study of "the movement of infected mosquitoes" was carried out in Palestine by Professor Kligler.

A survey of the literature on the relationship between housing and malaria has been undertaken, at the request of the Health Organisation, by Lieut.-Col. Clayton Lane, I.M.S., London.

Two samples of cinchona febrifuge received from plantations of the Government of India were analysed through the courtesy of Dr. H. H. Dale, F.R.S., by Dr. T. A. Henry and Dr. J. A. Goodson.

The interest of these analyses lies in the extreme differences in alkaloid and especially quinine content of the two samples, differences which must be taken into account in studies on the efficiency of such cinchona bark febrifuges.

Further information on the clinical effects of alkaloids other than quinine in the treatment of malaria, are expected from Dr. S. de Buen (Navalmoral de la Mata). This will be inserted in Professor Ciuca's general report on the efficacy of "secondary" alkaloids of cinchona.

In order to standardise the method of determination of the species of animal on which anophelines feed, a note was prepared by Professor E. Missiroli and Dr. L. W. Hackett, giving details of the technique for this determination (document C.H./Malaria/131).

Professor Ciuca, Dr. Baillif, Dr. M. Vieru, and Dr. A. Stirbu have reported on the control of immunity in malaria through transfusion of virulent blood (document C.H./Malaria/134).

Professor N. H. Swellengrebel, Professor A. de Buck and Professor I. M. H. Swellengrebel de Graaf have contributed a note on the latency during winter of an artificially induced malaria infection in man (manifesting itself in the following summer) (document C.H./Malaria/136).

#### MALARIA COURSES.

Courses in malariology were for the fourth time organised in 1929 under the auspices of the Health Organisation. The theoretical courses in 1929 took place in four schools. A sufficiently large group of medical officers from the British possessions being available, a course was arranged at the London School of Tropical Medicine through the courtesy of Sir Andrew Balfour. This course lasted from May 28th to June 28th.

Theoretical courses were also given: (a) at the Laboratory of Parasitology of the Faculty of Medicine, University of Paris (Director: Professor Brumpt), from June 5th to July 13th; (b) at the Institute of Tropical Diseases at Hamburg (Director: Professor B. Nocht), from June 10th to July 15th; and (c) with a large attendance at the Scuola superiore di Malariologia in Rome (Director: Professor V. Ascoli), from July 1st to September 30th.

As in previous years, the theoretical courses were followed by two periods of field work of one month's duration in the anti-malarial stations of Italy, Spain and Yugoslavia. In Italy the field work was jointly organised by the Stazione sperimentale per la Lotta antimalarica and the Scuola superiore di Malariologia.

The theoretical instruction given in these four schools was intended for medical men and malariologists. In addition to these courses, the Scuola superiore also gave a special course of instruction in malaria control to civil engineers and agricultural experts.

Ten scholarships were given to participants in malaria courses by the Health Organisation, four of which were granted to Greek physicians under the plan of co-operation between the Health Organisation and the Greek Government.

Other scholarships were given by the Rockefeller Foundation and Governments interested.

## II. PERMANENT COMMISSION ON THE STANDARDISATION OF SERA, SEROLOGICAL REACTIONS AND BIOLOGICAL PRODUCTS.

No meeting of this Commission was held during the year, but progress was made in the work carried on by the Danish State Serum Institute, which acts as the central institute on behalf of the Health Organisation.

### A. Sera.

1. *Anti-diphtheria Serum.* — In February, May and November 1929, the Institute compared and found identical the English, German and Danish standards.

2. *Anti-tetanus Serum.* — The Danish and English standards were compared in July and were found to be identical. Samples were distributed to the following establishments and institutions:

#### AFRICA.

##### *Official Institution.*

*South Africa:*

South African Institute for Medical Research, Johannesburg.

#### ASIA.

##### *Commercial Establishment.*

*British India:*

Bengal Chemical and Pharmaceutical Works Ltd., Calcutta.

#### EUROPE.

##### *Official Institutions.*

*Poland:*

State Institute of Hygiene, Warsaw.

*Czechoslovakia:*

State Institute of Hygiene, Prague.

*U.S.S.R.:*

State Bacteriological Institute, Minsk.

3. *Anti-dysentery Serum.* — This serum was distributed to the following twenty-six institutions and establishments:

AFRICA.

*Official Institution.*

*South Africa:* South African Institute for Medical Research, Johannesburg.

AMERICA.

*Official Institutions.*

*Argentina:* Bacteriological Institute of the National Department of Hygiene, Buenos Aires.

*Brazil:* Brazil Vital Institute, Nictheroy.

*Brazil:* Brazil Institute of Microbiology, Rio de Janeiro.

*United States of America:* Department of Hygiene, Albany (N. Y.).

ASIA.

*Official Institutions.*

*China:* National Epidemic Diseases Prevention Bureau, Peking.

*Korea:* Government General Hospital, Keijo (Seoul).

*Dutch East Indies:* Pasteur Institute, Bandoeng.

*Japan:* Government Institute for Infectious Diseases, Tokio.

*Commercial Establishments.*

*British India:* Bengal Chemical and Pharmaceutical Works Ltd., Calcutta.

Bacterio-Clinical Laboratory Ltd., Calcutta.

EUROPE.

*Official Institutions.*

*Germany:* Institute of Experimental Therapy, Frankfort-on-Main.

*Austria:* State Serum Institute, Vienna.

*Bulgaria:* Bacteriological Institute, Sofia.

*France:* Pasteur Institute, Paris.

Bacteriological Institute, Lyons.

*Great Britain:* National Institute for Medical Research, London.

*Poland:* State Institute of Hygiene, Warsaw.

*Roumania:* Laboratory of Experimental Medicine, Bucharest.

*Czechoslovakia:* State Institute of Hygiene, Prague.

*Turkey:* Institute of Hygiene, Istanbul.

*U.S.S.R.:* State Bacteriological Institute, Moscow.

State Bacteriological Institute, Minsk.

Institute of Experimental Therapy and for the Control of Sera and Vaccine for the Commissariat of Public Health, Moscow.

*Commercial Establishments.*

*Germany:* Behring Institute of Experimental Therapy, Marburg (Lahn).

Saxon Serum Factory, Dresden.

B. *Pharmaceutical Preparations.*

1. *Digitalis.* — The standard is preserved and distributed by the National Institute for Medical Research, London. This international standard was distributed to the following eleven institutions and establishments:

AMERICA.

*Official Institution.*

*United States of America:* The State University of New Jersey, Newark.

EUROPE.

*Official Institutions.*

*Germany:* " Reichsgesundheitsamt ", Berlin.

*Austria:* University Institute of Pharmacology, Vienna.

*Belgium:* University Laboratory of Pharmacology, Louvain.

*Hungary:* Pharmacological Institute, Budapest.

*Netherlands:* University Laboratory of Pharmacology, Utrecht.

*Poland:* University Institute of Pharmacology, Warsaw.

*Czechoslovakia:* Pharmacological Institute of the Veterinary College, Brno.

State Institute of Hygiene, Prague.

*U.S.S.R.:* Trust for the Sale of Pharmaceutical and Medical Products, Leningrad.

State Institute for Chemico-pharmaceutical Research, Moscow.

2. *Insulin.* — The standard is preserved by the National Institute for Medical Research, London, and has been distributed to the following thirteen institutions and establishments:

ASIA.

*Commercial Establishment.*

*British India:* The Bengal Immunity Co., Calcutta.

EUROPE.

*Official Institutions.*

<i>Germany:</i>	University Institute of Pharmacology, Berlin.
<i>Austria:</i>	University Institute of Pharmacology, Vienna.
<i>Great Britain:</i>	National Institute for Medical Research, London.
<i>Hungary:</i>	University Physiological Institute, Pecs.
<i>Poland:</i>	State Institute of Hygiene, Warsaw.
	University Institute of Pharmacology, Warsaw.
<i>Czechoslovakia:</i>	State Institute of Hygiene, Prague.
<i>U.S.S.R.:</i>	Trust for the Sale of Pharmaceutical and Medical Products, Leningrad.

*Commercial Establishments.*

<i>Germany:</i>	Seax Ltd., Berlin.
	I.G. Farbenindustrie A.G., Hoechst-on-Main.
<i>Great Britain:</i>	Wellcome Physiological Research Laboratories, Beckenham.
	Boots Pure Drug Co., Nottingham.

3. *Pituitary (Posterior Lobe)* — The international standard is preserved by the Hygienic Laboratory, Washington. A standard identical with this has been distributed by the National Institute for Medical Research, London, to the following nine establishments and institutions:

ASIA.

*Commercial Establishment.*

<i>British India:</i>	The Bengal Immunity Co., Calcutta.
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EUROPE.

*Official Institutions.*

<i>Germany:</i>	Pharmacological Institute of the Academy of Medicine, Dusseldorf.
<i>Austria:</i>	University Institute of Pharmacology, Vienna.
<i>Poland:</i>	University Institute of Pharmacology, Warsaw.
<i>Czechoslovakia:</i>	State Institute of Hygiene, Prague.
<i>U.S.S.R.:</i>	Trust for the Sale of Pharmaceutical and Medical Products, Leningrad.
	State Institute for Chemico-Pharmaceutical Research, Moscow.

*Commercial Establishment.*

<i>France:</i>	Poulenc Frères Establishment, Paris.
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4. *Salvarsan.* — This standard is preserved by the Institute of Experimental Therapy of Frankfort-on-Main, and has been distributed to the following six institutions and establishments:

ASIA.

*Official Institution.*

<i>Japan:</i>	Kitasato Institute for Medical Research, Tokio.
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EUROPE.

*Official Institutions.*

<i>Spain:</i>	Government Pharmacological Department, Madrid.
<i>France:</i>	University Pharmacological Laboratory, Paris.
<i>Great Britain:</i>	National Institute for Medical Research, London.
<i>Switzerland:</i>	Federal Health Service, Berne.
<i>Czechoslovakia:</i>	State Institute of Hygiene, Prague.

C. *Preparations alleged to contain Vitamins.*

During its fourteenth session held in Geneva in May 1929, the Health Committee invited this Commission to consider the elaboration of standardised methods for the examination of preparations placed on sale alleged to contain vitamins. The Medical Director was also asked to obtain information on the methods employed by health administrations to suppress the abuses to which the sale of such products might give rise.

III. CANCER COMMISSION.

I. GENERAL WORK.

The Cancer Commission received during the year various communications of interest. An enquiry in the Netherlands by Professor Deelman, who carried on parallel investigations of the families of cancerous and of correspondingly non-cancerous persons, revealed that the factor of heredity was conspicuous in the cancer group. While the data are not sufficiently large to justify the drawing of definite conclusions, they suggested the interest of enquiries along similar lines in other countries. The Polish Congress which met at Warsaw submitted interesting information on the influence of race, and a memorandum on the same subject was received from Japan.

## 2. OCCUPATIONAL CANCER.

This study was undertaken by a special Sub-Commission under the chairmanship of Dr. Major Greenwood. The secretariat was furnished by the International Labour Office as well as by the Health Section. The Sub-Commission is attempting to determine why certain well-recognised types of occupational cancer—such as cancer of chimney-sweeps, mule-skinners, etc.—should occur to such varying degrees among the same class of workers in different countries. It is also attempting to bring to light the existence of forms of occupational cancer not hitherto suspected. The Sub-Commission is following with interest an English enquiry into cancer of the skin, in which an attempt is being made to trace back the particular occupation which might have been responsible for exposure to the skin of irritation.

An enquiry has been undertaken to ascertain whether certain classes of miners are liable to cancer of the lung, as at Schneeberg (Austria). Cases of the disease among Czechoslovak cobalt miners were established, but the results in other countries were negative (document C.H./Cancer Prof./3).

## 3. RADIOTHERAPY OF CANCER.

This work is being carried on by a special Sub-Commission of radiologists and gynaecologists. The greater recognition in recent years of the curative properties of radium and of its specific action, in certain circumstances, on cancer tissue has given rise to the demand that the supply of radium should be adequate. As radium is so costly, it is essential that methods calculated to produce the maximum benefit should be employed. Only a few institutions, however, possess the necessary experience in this matter.

The form of cancer for which many countries desire this information is cancer of the uterus. Consequently, the Sub-Commission applied to three clinics which had had the necessary experience in treating this form of cancer—those at Munich, Paris and Stockholm.

The Directors of these three clinics described in detail the methods followed at their clinics, and followed this up with a description of the various methods which had been fully tried out and finally abandoned. Their object was to prevent newcomers to this field repeating the same mistakes which others had made.

The experts also agreed on a statement of general principles, relating to the standard classifications of stages of cancer, the standard case-record, and the way in which radium should be distributed and used.

The Sub-Commission of Radiologists drew attention in its report (document C.H.788) to the necessity of ensuring further international co-operation with regard to the radiological treatment of cancer.

## IV. COMMISSION ON THE FUMIGATION OF SHIPS.

A meeting of this Commission was held in Paris on May 15th, 1929.

Major-General Graham was represented by Colonel Phipson and in addition Dr. Rupert Blue and Dr. Villejean were present.

The Commission considered a report presented by its Chairman. This included a summary of the action decided upon at a previous meeting with a note on the progress made.

The President had written to members of the Commission requesting information on the methods of fumigation at the ports with which they were familiar and comments based on their experience.

An abstract of the replies received accompanied the report which also contained information on the following points:

1. Suggested programme of experiments on ship fumigation.
2. Tentative programme of investigation on ship fumigation at the New York quarantine station.
3. Abstracts of the first, second and third progress reports of investigations at the New York quarantine station.
4. Accidents resulting from fumigation of ships with hydrocyanic acid gas in the United States.
5. References to the literature on fumigation of ships with reviews of certain articles.

The suggested programme of experiments was approved, and the Chairman promised that the investigations would be actively pursued in the United States.

The programme is as follows:

### A. Absorption of HCN in living quarters by blankets, mattresses, curtains, etc.:

1. The exact amounts absorbed under various conditions of gas, length of exposure, temperature, humidity, etc.:

(a) How this HCN is released—heat, humidity, artificial, natural, heat of body, effect of ventilation.



2. The methods to avoid this danger:

- (a) Removal of absorbing material, airing afterwards, shaking, beating, etc.;
- (b) Introduction of substance to compel longer ventilation, formalin, etc.

B. Absorption of HCN in non-living quarters by water in bilges, refrigerating room, various kinds of cargo and foodstuff:

1. Exact amounts absorbed under varying conditions as under A (1);
2. Methods to avoid this danger:

- (a) All details as under A (2).

C. Review chemical tests for presence of HCN after fumigation and compare these with animal tests:

1. Get exact figures to show comparative delicacy and reliability of each;
2. Compare the two from a basis of actual practical work as done at a typical American quarantine station.

D. Test methods of neutralisation as distinguished from warning gas and get results:

1. As a theoretical study;
2. As a practical application to modern fumigation. (These studies should include formaldehyde, ammonia, methanol or any other substance that may give promise.)

E. Experiment with sulphur and HCN. Compare the two:

1. Test especially penetration. (Penetration of sulphur can be improved by having it burn out quickly. This depends upon the shape of pan.)
2. Try to cut the time of exposure necessary for sulphur. Compare especially with Zyklon-B.

F. Investigate liquid SO<sub>2</sub> and experiment if costs permit.

G. Test penetration of various gases when air is agitated as compared with still air.

H. Test the effect of Zyklon-B with special reference to the warning gas on tea, tobacco and any other delicate article.

I. Series of experiments to determine the point of highest efficiency considering two factors, viz., strength of gas and length of exposure.

In working out the relation between these two, we should consider:

- (1) The value of the ship's time; and
- (2) The relatively short time required for fumigation proper as with the time necessary for preparation of the ship. The point of maximum efficiency will vary in relation to strength of gas and time of exposure with certain factors, especially the structural conditions of ship.

J. The effect of heat and humidity:

1. Upon generation;
2. Upon release from containing material (Zyklon-B);
3. Upon penetration;
4. Upon killing effect of HCN.

K. A substitute for Zyklon-B should be sought for; at least, HCN absorbed in carbon tetrachloride should be thoroughly tested.

L. Mechanical. A ventilating machine should be worked out. This may come under three heads:

1. Gasolene;
2. Electric;
3. Hand.

M. Experiments with live rats released on board ships. These rats should be wild and of the *rattus* or *alexandrinus* variety. The method of raising these rats, as well as their transportation, should receive careful consideration as many difficulties are involved. Several lines of investigation may be followed and others will suggest themselves.

1. Release of a definite number of rats on a vessel which will be fumigated in a foreign country, checking the results.

2. Release of a definite number of rats on a vessel which will not be fumigated in a foreign country but which will be fumigated at a home port upon its return trip.
3. Release of a definite number of rats on a similar vessel, subjecting it, however, to other deratisation methods, such as trapping.
4. Release of a definite number of rats on a similar vessel, subjecting it to fumigation plus trapping.

The above can be repeated on vessels of varying construction such as non-rat-proof, partially rat-proof or entirely rat-proof. It may also be repeated on vessels carrying grain on the outward trip to see how many return with the vessel.

5. Release of rats on a vessel about to discharge cargo at the dock, endeavouring to see how many get off. By comparing several such ships, the effect of rat guards, breasting off and similar measures could be tested.
6. Release of rats on board a rat-proof ship, tracing what becomes of them. This would be of especial value if they could be released without the knowledge of the crew and if a check could be kept of any rats killed by them and the ease or difficulty with which they were killed.

It was recommended that the programme should be communicated to those public health administrations which were especially interested in ship fumigation, for their observations.

These administrations were to be asked if they were carrying out experimental work on any of the problems enumerated or if they would be prepared to do so.

Dr. Stock (Great Britain) and Dr. Jitta were invited to prepare a memorandum on the work already carried out concerning the absorption of hydrocyanic acid gas by footstuffs and the danger involved to human life.

The Commission recommended that Mr. Monier Williams, of the British Ministry of Health, should be invited to join the Commission as a technical expert.

## V. JOINT COMMISSION ON ANTHRAX. <sup>1</sup>

At a meeting of this Commission at Geneva in June 1929, Professor Ottolenghi gave details of the work carried out by M. Casaburi and his assistants from the bacteriological point of view (document C.H./Anthrax/15).

As the results obtained by the use of sodium sulphide were not satisfactory in practical tests, an endeavour had been made to ascertain if the disinfectant action of sodium sulphide could be increased.

The following are the directions along which this work has proceeded:

1. The possibility of associating sodium sulphide with other substances capable of increasing its power of destroying spores is being explored.
2. The resistance of the different strains of anthrax spores is being investigated.
3. Experiments on hides, considering both the bacteriological and technical aspects of the question, are being carried out.

1. The combinations which have shown the greatest activity are with sodium fluoride, sodium arsenite, potassium sulphate and potassium arsenite.

2. The strains dealt with have been received from fifty-two sources.

They are classified as relatively feeble, moderately resistant and highly resistant.

The first group are killed by sodium sulphide alone.

The second group are killed by a combination of sodium sulphide and other salts.

The third group, after treatment by a combination, still contain living spores.

3. Experiments on skins have been made using the guinea-pig, rabbit and goat artificially infected:

In 75 per cent of skins spores survived treatment with sodium sulphide alone;

In 40 per cent of skins spores survived treatment with sodium sulphide combined with sodium sulphate;

And in 25 per cent of skins spores survived treatment with sodium sulphide combined with other salts.

From the *bacteriological* standpoint, experiments have shown that sodium sulphide, even when employed with other salts, does not kill all the spores.

However, the number which survive is so small that the skins no longer present a grave danger.

Several speakers referred to the influence of the temperature at which treatment took place on the resistance of the spores and on the necessity of determining the time required to disinfect

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<sup>1</sup> Set up by the Health Organisation of the League and the International Labour Office.

a skin at a given temperature. Dr. Hailer gave particulars of the application of Ascoli's serum reaction for the detection of infected skins.

The experimental work is to be continued during 1930, when these two points will be given due consideration.

## VI. COMMISSION FOR THE STUDY OF LEPROSY.

At its meeting in Paris in May 1928, the Leprosy Commission concluded that more information was needed on the prevalence of leprosy in various countries and on the methods of prevention in use, as well as on the investigations being carried out by various agencies.

Before the visit to Latin America, Dr. Burnet, the Secretary of the Leprosy Commission, visited a number of centres in Europe to discuss various phases of the Commission's work. In London interviews took place with the Secretaries of the British Empire Leprosy Relief Association and with Sir Leonard Rogers.

Dr. Reenstierna of Stockholm and Dr. Lie of Bergen were consulted and, later, a visit was made to Tartu to obtain full details of the new method of treatment of leprosy which Dr. Paldrock is carrying out with apparently promising results.

During his tour in Latin America, a large amount of information was collected and on his return Dr. Burnet prepared a report for presentation to the Leprosy Commission at its next meeting. This report deals with the following subjects:

- (i) Interpretation of epidemiological enquiries into leprosy.
- (ii) Consideration of urgent matters to which the Commission drew attention at its session in May 1928.
- (iii) General conditions of prophylaxis.
- (iv) Conclusions:
  - (a) Suggested programme for next session;
  - (b) General programme of work and study.
- (v) Appendices: Epidemiological Information:
  - (a) Europe and Africa;
  - (b) Asia and Oceania;
  - (c) America.

The Secretary is now obtaining further information by personal observation and enquiry in British India, Japan, the Netherlands East Indies, and the Philippines.

At its next session, the Commission will thus have before it the data needed to enable a general programme of international study to be prepared.

## VII. OPIUM COMMISSION.

A question was put to the Health Committee regarding the interpretation of a decision taken at its thirteenth session in regard to the application of Article 10 of the Opium Convention signed at Geneva in 1925 to the esters of morphine.

During its fourteenth session, the Health Committee placed its opinion on record that the recommendation made at its thirteenth session concerning the application of the Convention to benzoylmorphine and the morphine esters generally should apply to all morphine esters without exception. However, the Committee reserved the right to exempt, under Article 8 of the Convention, those esters the innocuous character of which might hereafter be clearly demonstrated (document C.175.1929.III).

Three new lists of preparations were submitted to the Health Committee for exemption under Article 8 of the Convention from the British, German and Swiss Governments. They have been duly transmitted to the Office international d'Hygiène publique for opinion and report.

The Siamese Government requested the Health Committee to indicate the best physiological and chemical methods of identifying the drugs to which the Committee had extended the provisions of the Opium Convention, namely, eucodal, dicodide, dilaudide, benzoylmorphine and other esters of morphine. The Health Committee accordingly entrusted Professor Knassl-Lenz with the preparation of a detailed memorandum on this question, which has been duly transmitted to that Government.

## VIII. SUB-COMMISSION ON PREVENTIVE MEDICINE.

The first session of this Sub-Commission, held at Geneva in December 1928, was described in the annual report for that year.

From April 8th to April 24th, 1929, the Sub-Commission made a study-tour in Austria and Germany in order to observe the working of the health institutions set up by the health services and insurance organisations at Berlin, Hamburg, Cologne, Nuremberg and Vienna.

On the basis of the observations made during the study-tour, as well as on the personal opinions of its expert members, the Sub-Committee reached the general conclusions which appear below. These conclusions are necessarily of a provisional nature and subject to alterations which further experience in other countries might suggest.

I.

"The Sub-Committee is of the opinion that, for the protection of public health, the co-operation of the institutions of social insurance and health welfare organisations, both public and private, is essential.

"This co-operation is necessary to prevent duplication of effort, to secure the fullest results from each of the institutions concerned and to apply really rational measures of disease prevention and early treatment.

"This co-operation is of benefit both to the institutions themselves and to the general public.

"The public authorities should establish the policy necessary for the application and development of common measures for the protection of the public health.<sup>1</sup> They must also give to the institutions interested the necessary powers for the carrying out of their task.

"The measures taken in common by the insurance and health institutions for the benefit of the insured persons and the members of their families should only be made compulsory for these institutions after a sufficient time has elapsed to show that such measures are efficient and economical.

2.

"A fundamental principle in public health work is that 'prevention is better than cure'; it is therefore the duty of social medicine to apply to the whole population the needed preventive measures.

"In order to apply these fundamental principles, it is first necessary to discover the persons in need of protection. Such persons, after a thorough medical examination, must be given for a sufficiently long and uninterrupted period, under proper supervision, the benefit of the curative and other methods which their state of health may necessitate.

"Principles of economy should form the basis of all measures tending to the protection and betterment of public health.

3.

"The chief aim of public health work is the control of so-called 'social diseases'.

"It is, however, necessary to extend the meaning of the term 'social diseases' so as to include:

"1. Those diseases which cause heavy losses of life and health to the population affected (such as tuberculosis, syphilis and other diseases, generally called 'social diseases');

"2. And also those which, by their frequency, the necessity of prolonged and costly treatment and the repeated working disability they entail, constitute a heavy financial burden for the community.

"It is essential to organise or to intensify the campaign against diseases of these two types since, although their modes of action are different, in the final analysis they both result in a heavy drain upon the social capital of the people.

"In order to set out clearly which are these diseases, it is necessary to gather statistics giving information on the following subjects:

"1. Mortality and morbidity;

"2. The expenditure entailed by medical care of these illnesses, their frequency and duration, the cash expenditure in sickness benefits;

"3. The social factors in disease, their influence on the causation, evolution and termination of the diseases in question.

"These statistics should be established in accordance with scientific requirements and in conformity with the principle to be laid down by the Commission of Expert Statisticians of the Health Organisation of the League of Nations, through the common action of the Health Services on the one hand and the social insurance institutions on the other.

4.

"In order to obtain the collaboration of all institutions capable of playing a useful rôle in the protection of public health, it is necessary to bring them together into 'Councils of co-operative action for social medicine' (Arbeitsgemeinschaft für Gesundheitsfürsorge).

"Unity in method and action is essential for success and all steps taken by the Council of co-operative action must be guided by scientific principles laid down by experts specially competent in the field of social medicine.

"The activity and the field of action of these Councils must of necessity depend upon the constitution and administrative structure of the various countries. It may be possible, for instance, to establish a central national committee dealing with the whole of the country, with the purpose of bringing about unity of action, and regional and local committees, the main duty of which would be the actual organisation and carrying out of the work in their respective spheres.

"Each Council of co-operative action should be composed of:

"Competent representatives of social insurance institutions;

"Competent representatives of *public* health and welfare services;

"Representatives of *private* welfare organisations and of any other organisation able to give useful collaboration;

<sup>1</sup> Such general instructions have been issued, for instance, by the German Government under the title: "Richtlinien über Gesundheitsfürsorge in der versicherten Bevölkerung" (Erlassen von der Reichsregierung am 27. II. 1929. Reichsgesetzblatt, I. 69).

“ Competent representatives of the medical profession, *i.e.*, whose technical training is in accordance with the requirements suggested by the Sub-Committee of Social Medicine at its session of December 17th to 19th, 1928. <sup>1</sup>

“ The funds necessary for the action of the co-operation Council must be made up of contributions from the various institutions represented on it, in proportion to their respective budgets.

5.

“ The programme of the ‘ Council of co-operative action ’ should be directed not only to the persons insured by social insurance institutions and their families, but also to all persons who, because of their economic circumstances or state of health, are in need of assistance.

6.

“ It will be the duty of the ‘ Council ’ to determine which elements of the population are in need of protection, to take the necessary measures of preventive and curative medicine, of social assistance and of health education, and, finally, to allot the available resources.

“ They will have to consider also:

“ (a) The upkeep, development and foundation, according to sound economical principles, of institutions of preventive and curative medicine (out-patient clinics, dispensaries, hospitals, sanatoria, preventoria, etc.) in conformity with the requirements of modern science. The staff of these various institutions—physicians, visiting and bedside nurses, inspectors, etc.—must be duly qualified and trained for their work.

“ (b) The extension of health control, particularly through periodical medical examination of young people (infants, school-children, apprentices, etc.).

“ (c) The betterment of living and working conditions, especially through the elimination of slums by the re-modelling of houses, the building of healthy dwellings, the development of ‘ workers’ gardens ’, campaign against alcohol, etc.

“ (d) Popular health education, which should be systematically extended to the whole population. ”

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<sup>1</sup> *Resolution VII:*

“ 1. Special training should be given to medical personnel and assistants (midwives, visiting nurses, social workers, etc.) employed by institutions of preventive medicine. ”

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## Chapter V.

### CO-OPERATION OF EXPERTS IN THE WORK OF THE HEALTH ORGANISATION.

#### I. ENQUIRY INTO INFANT MORTALITY.

A conference of health experts on infant welfare met at Rome from March 25th to 28th, 1929, to consider the national reports received from the several countries.

The enquiry had been carried on for a period of twelve consecutive months in twenty-nine urban and rural districts of seven European countries<sup>1</sup>. The deaths of 7,503 infants had been investigated, of which 5,147 were live births and 2,356 still-births.

The experts found that the problems were everywhere the same in districts belonging to the same mortality groups, consequently the districts were classified into four groups (urban and rural districts separately) characterised by low, moderate, high and very high infant mortality rates.

The important problems in each of these groups were set out by the Conference as follows:

##### GROUP I. — LOW INFANT MORTALITY RATES (3 TO 4.9 PER CENT).

The problems relating to infant mortality in these districts are as follows in the order of their importance:

- (a) Deaths associated with the pre-natal period (prematurity, still-birth), with confinement and with the period immediately following birth, usually supervised by obstetricians and midwives, cause almost two-thirds of all the deaths in the various districts.
- (b) Deaths due to respiratory affections do not constitute a real problem in these districts.
- (c) There are only a few deaths from digestive disturbances in this group of districts.

##### GROUP II. — MODERATE INFANT MORTALITY RATES (5 TO 6.9 PER CENT).

- (a) Deaths associated with the pre-natal period, with confinement and with the period immediately following birth, continue to occur in the same measure as in Group I.
- (b) The number of deaths from respiratory disease also remains about the same.
- (c) Digestive disturbances begin to assume more importance.

##### GROUP III. — HIGH INFANT MORTALITY RATES (7 TO 9.9 PER CENT).

The characteristics of this group are the importance of:

- (a) Digestive disturbances, both in rural and urban districts, and
- (b) Acute specific infectious diseases.

The influence of tuberculosis and syphilis has become more apparent than in the preceding groups. Deaths due to respiratory disturbances and those associated with confinement are of still greater importance than in the preceding groups.

##### GROUP IV. — VERY HIGH INFANT MORTALITY RATES (10 PER CENT AND OVER).

In this group, the mortality due to digestive disturbances has become very much greater. A larger number of deaths is also due to acute specific and non-specific infectious diseases, while prematurity and conditions immediately following birth are responsible for more deaths than in previous groups.

The Conference, after analysing the causes of infant mortality as elicited by the enquiry (document C.H.779), went on to make a number of recommendations.

<sup>1</sup> Austria, France, Germany, Great Britain, Italy, the Netherlands and Norway.

The enquiry had revealed the value of measures of infant and maternal protection, such as welfare centres and social legislation, but these were insufficient in all the districts.

In view of the obscurity surrounding prematurity, still-birth and early infant death, these problems should be investigated scientifically by obstetricians and pediatricians. Pediatricians should unite with hygienists to throw light on the prevention of respiratory infections.

A number of practical suggestions were based on the results of the enquiry with respect to the chief causes of infant mortality, as follows:

#### A. *The Prevention of Prematurity, Still-birth and Early Infant Death.*

1. There should be improvement in the medical supervision of women during pregnancy.
2. This may be brought about by means of maternal welfare centres, physicians and midwives. Special training should be provided for this purpose.
3. More maternal welfare centres should be organised to provide for the medical supervision of the expectant mother.
4. Such supervision implies a better understanding on her part of its necessity from the very beginning and throughout the whole period of pregnancy.
5. There should be a campaign against the employment of untrained women as midwives, and in certain countries the social status of the midwife should be raised.
6. There should also be medical supervision of women in industry who become pregnant.

#### *Social and Legislative Measures for Pregnant Women.*

1. Financial and other forms of assistance to pregnant women, and legislative measures, such as health insurance (with provision for dependents), should permit such women to rest during the latter months of pregnancy—a means of preventing still-birth and prematurity.<sup>1</sup>
2. In the majority of the districts under consideration, the existing laws and financial assistance have been insufficient to permit pregnant women to take sufficient rest.

#### *Measures during Confinement.*

1. Untrained women should be prevented from acting as midwives, and midwives and physicians should be given a better training in obstetrics.
2. Access of parturient women to maternity hospitals should be facilitated whenever there is sufficient medical or social need.
3. Small maternity hospitals should be established in rural districts.

#### *Prevention of Deaths during the First Days of Life.*

Attention should be called to the necessity for consulting child specialists with regard to new-born children, and to the need for improving public instruction and the training of midwives in the care of infants at and immediately following birth, especially of premature and weakly infants.

#### B. *Campaign against Respiratory Diseases.*

1. Apart from better housing conditions, the prevention of cross infection implies improvement of hygienic conditions and medical supervision of all infants gathered together in groups, as in hospitals, nursing-homes, etc.
2. The public should be better informed regarding these diseases and the danger of their spread from adults to infants, as well as in the methods of preventing such transmission.

#### C. *Campaign against Acute Specific Infectious Diseases.*

1. Attention should be called to the dangers of whooping-cough and measles, and to the need for employing the classic preventive measures, such as isolation, as well as the more recent methods, such as serum-prophylaxis and vaccination.
2. Every possible effort should be made to apply to infants all known preventive measures against syphilis and tuberculosis.

#### D. *Measures against Digestive Disturbances.*

1. The success obtained in the districts with low mortality in the prevention of this group of causes of death indicates clearly the action to adopt. In these districts the campaign should

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<sup>1</sup> Social remedies should be applied without partiality to legitimate and illegitimate children.

be continued and extended to districts with higher infant mortality. Breast-feeding should be encouraged by measures of education and material assistance given to the nursing mother.

2. In the interests of artificially fed infants, infant welfare agencies which give advice to mothers and assist by other means, etc., should be developed.

3. Measures for the supervision and improvement of the milk supply should be organised.

#### E. *General Measures.*

##### (a) *Education of the Public in Hygiene.*

1. This implies the teaching of certain aspects of hygiene concerning infants, as a part of elementary and secondary school instruction.

2. The interest of teachers and professors should be developed in this direction, especially when women teachers are employed.

3. The establishment of schools of hygiene with courses not limited to physicians, midwives and nurses, but also open to the public. Education of the public may be carried on by means of infant welfare centres, which should undertake still more widely than at present the training of mothers by dealing more fully with all the subjects relating to infant welfare.

##### (b) *Education of Physicians and Midwives in Hygiene.*

This training should not be limited to medical students and student midwives, but should extend to practising physicians and midwives, for whom systematic continuation courses should be organised. In medical schools, physicians and midwives should learn of the practical difficulties which will confront them in practice. Courses in pediatrics and particularly in diseases of infants should be compulsory.

##### (c) *Supervision of Infancy by Public Health Nurses.*

The enquiry shows that it is most desirable for infants living in each district to be visited by a public health nurse, who should persuade the mother to visit the family physician or the infant welfare centre even though the child is quite well. The public health nurse should also advise the mother on infant hygiene and breast-feeding. The influence of such nurses and of infant welfare centres is particularly valuable in dealing with certain groups of the population which resist the application of measures for the protection of infancy.

If proper provision be made for pregnant women and new-born children in the form of maternal and infant consultations, public health nursing, legislation providing for compulsory absence from work and a subsistence allowance before and after confinement, as well as an allowance for breast-feeding, a large proportion of the women and infants in need of these services will take advantage of them voluntarily.

Every central health administration should realise the advantages inherent in these provisions for infant and maternal welfare, and should develop them or encourage their development as rapidly as possible.

*In view of the results secured by the enquiry, it is recommended that the Health Administrations of the different countries should carry on studies of a similar character, which will serve as a basis for the establishment and application of preventive measures, and will complete the official statistical information on infant deaths which the enquiry has proved to be insufficient in many districts.*

*In view of the fact that the enquiry has stimulated the greatest interest in all the districts in the prevention of infant mortality, it is also recommended that the investigators should furnish periodically information on the various districts and on the progress achieved.*

#### Action of the Health Committee.

The report of the Conference was submitted to the Health Committee by Professor Debré in May 1929. The Committee approved the report, offered its best thanks to the experts and workers, and decided to associate itself with the recommendation that health administrations of other countries should be invited to undertake studies of a similar nature. It also recommended that the report should receive as wide publicity as possible.

M. Quiñones de León (delegate of Spain), who presented the Health Committee's report to the Council at its fifty-fifth session, said that a similar enquiry was being started in Spain. Similar action will be taken in Czechoslovakia, Denmark, Roumania and Yugoslavia, and in different countries of Asia.

In view of the Health Committee's desire to assist in the conduct of such studies, the Health Organisation has granted fellowships to the experts who will be entrusted with these studies in the new countries, to enable them to study the methods used in the districts where the enquiry has been completed.



Each of the experts who conducted one of the original enquiries plans to publish a national report. Two of these, for England and the Netherlands, have appeared.

The Health Section has also prepared a memorandum for the information of health administrations desiring to undertake the enquiry.

Reference to the enquiries in Latin America is made elsewhere in this report (Chapter III).

## II. IMMUNISATION AGAINST DIPHTHERIA AND SCARLET FEVER.

During the discussion in the Health Committee in October 1928 of the report on the Conference on Infant Mortality, it was decided to ask experts to report on the results obtained in certain countries of Europe and in America by specific immunisation against scarlet fever and diphtheria.

Professor Debré was asked to undertake the report on scarlet fever, and Professor Gorter the report on diphtheria.

Both these experts visited a number of European countries and prepared preliminary memoranda on the information collected. Amongst the many interesting facts that emerged from the enquiry, the most striking feature was the universal agreement concerning the urgent need for a technical discussion and the exchange of material between the various research workers and clinicians in the different countries visited.

In order to develop further the enquiry along these lines, the President and the Medical Director were authorised by the Health Committee to obtain expert advice, and a number of experts were invited to a consultation in Paris on July 4th, 5th and 6th, 1929.<sup>1</sup>

Before the meeting, a copy of Professor Debré's report on scarlet fever and that of Professor Gorter on diphtheria was circulated to all participants with a request for observations.

1. *Diphtheria.* — With regard to material for immunisation against diphtheria, it was agreed that Ramon's anatoxin should be chosen and that experiments should also be made with toxoid supplied by O'Brien. It was further agreed that, in those countries, namely, the Netherlands and Germany, where toxin-antitoxin (T.A.) was used, this preparation should be contrasted in its results with that obtained in those countries with Ramon anatoxin.

It was agreed that comparative tests between Ramon's anatoxin and O'Brien's toxoid might be done in England and Hungary.

With reference to the Schick test, it was suggested that O'Brien's borated solution should be used in all cases and that the toxin should be supplied by one laboratory. This would leave it open to the various workers to test the toxin received against the toxin ordinarily used by them, that is to say, to compare standard Schick solution in respect of the minimum skin reaction dose and the combining power test.

As regards active immunisation against diphtheria, it was decided to study in the first place the number of injections advisable. It was considered that, if three injections were given as a general rule, a sufficient number of two-injection cases would be automatically secured through the unwillingness of many individuals to come forward for the three injections. It was also proposed that, where possible, the question of the interval between the injections should be studied on the comparative basis.

Three age-groups were suggested, viz., 1 to 6 years, 6 to 12 years and 12 to 25 years. It was urged that the number of children to be immunised in each experiment should be not less than 1,000 with controls. A proportion of these, say 10 per cent, should be Schick-tested before and after vaccination and also tested for blood content of antitoxin before and after immunisation. It was considered essential to make the tests on alternate children in the same group in order to make sure that the environmental condition of the controls was the same.

It was thought desirable to check results not only by the Schick test and antitoxin determinations, but also by statistical methods, *i.e.*, control groups.

It was agreed that the Schick test should be performed three months after the beginning of the injection and that some children should be tested two months after that date in order to ascertain whether immunity was conferred more quickly by one product than by another. If possible, a number of children should again be tested after nine months and as regards the antitoxin determination that this also should be performed, when possible, at the three intervals mentioned (two, three and nine months).

It was agreed that the usual dose of anatoxin, *i.e.*,  $\frac{1}{2}$  c.c., 1 c.c. and  $1\frac{1}{2}$  c.c., should be used for children of all ages. In the case of toxin-antitoxin, it was suggested that some proportion might be laid down, *e.g.*, 1/10th of a unit of toxin to 0.085 of antitoxin, and the suggestion was also made that the toxin content of the toxin-antitoxin might be adjusted so as to be equivalent to the anatoxin used in the enquiry.

The details of the toxin-antitoxin experiments were, however, held over for later discussion.

<sup>1</sup> See list in Annex III.

2. *Scarlet Fever.* — It was proposed that the same procedure be followed as for diphtheria and that no discussion be held on the value of the Dick test. The following working hypotheses were taken for granted:

1. The Dick test enables the susceptible to be distinguished from the non-susceptible.
2. It is possible by using a suitable chosen antigen to produce immunity to Dick toxin.
3. Such immunity appears to correspond to a protection against scarlet fever.

The following points were particularly discussed:

1. The method of appraising Dick test results.
2. The supply of toxin for the experiments.
3. The procedure as regards pseudo-reaction.
4. The methods of active immunisation.
5. The appraisal of the results of such immunisation.

It was suggested that a standard toxin be supplied prepared from the original Dick strains in one laboratory and that this toxin should be compared in each country with the toxins locally used; that is, patients immunised against this toxin in which the reaction had changed from Dick positive to Dick negative might be tested with the reaction to the local toxin. It was thought that it would be valuable to compare on patients who had acquired immunity not only the Dick reaction with the standard toxin supplied to each country, but also the results obtained in such individuals by toxin prepared from original cultures taken from the throat of the patient.

It was agreed that all countries taking part in the experiment should use a common Dick-Dochez antigen and that in Roumania, Hungary and Poland a local antigen should be used as well; that is to say, that in Roumania a local anatoxin would be used in pure form and in Hungary and Poland a local anatoxin mixed with the Dick-Dochez antigen. It was agreed that each country should be supplied with Dick and Dochez strains from a common source and should prepare its own antigen on the lines to be laid down for comparative purposes.

Immunised patients are to be tested before and after vaccination, according to a specified technique, with a Dick-Dochez toxin and with a national toxin. It was suggested that vaccination should be according to the classical American method and with an anatoxin to be prepared according to Professor Ramon's instructions.

Members would receive upon application:

1. Toxin for Dick tests;
2. Particulars of the Dick test, together with particulars of the method of reading, and details as to pseudo-reactions that might be expected;
3. Samples of strains for the preparation of anatoxin;
4. The technique for the preparation and titration of anatoxin.

Strains isolated from those who had had scarlet fever after vaccination are to be sent to Professor Friedemann, together with the strains of streptococci used locally for the preparation of toxin and anatoxin.

Professor Friedemann agreed to submit these organisms to a bacteriological-biological examination and to test them for toxigenic properties.

Professor Ramon will supply full particulars as to the technique for the production of anatoxin and samples of standard serum for flocculation tests for the comparative test of the anatoxins prepared.

A programme based on the suggestions of the experts was drawn up and approved at a final session.

#### PROGRAMME OF EXPERIMENTAL WORK.

##### *Diphtheria.*

As in the case of the test-control reaction in scarlet fever, it was agreed to adopt a uniform toxin and technique for the Schick reaction. The toxin would be supplied from London through Dr. O'Brien, who would also draw up the details of the technique for the Schick test.

The immunisations will be carried out with anatoxin (Ramon), toxoid (O'Brien) and toxin-antitoxin (Netherlands' Serological Institute).

The following problems would be specially studied:

- (a) Comparison of the different antigens used for active immunisation against diphtheria as contrasted with Ramon's anatoxin;
- (b) Effect on immunisation of the intervals between the immunising doses;
- (c) Comparative effect of subcutaneous and intramuscular inoculations from the point of view of reaction and efficacy;
- (d) Influence of age;
- (e) Effect of environment.

Experts from the following countries promised to attempt to undertake work on these lines: Denmark, England, France, Germany, Hungary, the Netherlands, Poland, Roumania, Czechoslovakia and Yugoslavia.

It is anticipated that the work of immunisation could be carried out on some 20,000 individuals.

#### *Scarlet Fever.*

In the case of scarlet fever, it is suggested that the work be controlled in each country by a Dick reaction in which the toxin used and the technique employed would be similar. The toxin would be supplied by the Danish State Serum Institute from supplies of toxin prepared in London from the original Dick strain. The technique used would be that drawn up by Professor Debré, on the basis of a note by Dr. O'Brien and Professor Madsen. In certain countries (Hungary, Poland, Roumania and Yugoslavia), an additional Dick test will be carried out with toxin derived from local streptococcal strains.

With regard to immunisation, two strains of Dick and one of Dochez would be sent to each of the countries concerned by the State Serological Institute of Denmark, and at the same time Professor Ramon would supply an account of the technique for the preparation of anatoxin from the toxin prepared from these strains. The anatoxin would be prepared in each country from the Dick and Dochez strains supplied and should be compared with anatoxin prepared from local streptococcal strains.

In Yugoslavia, experiments would be made concurrently as to the results of vaccinations with Dick toxin according to the original method of Dick (slightly modified).

In Japan, it is proposed to continue investigation into the properties of the thermolabile toxin and the thermostabile toxin recently isolated by Dr. Toyoda from Dick toxin.

It is suggested that, where possible, investigation should also be made regarding the antitoxin content of the blood.

Finally, it was suggested that Professor Friedemann be asked to undertake a detailed study of the different local streptococci. This investigation would cover not only those streptococci used locally for the preparation of toxin and antitoxin, but also organisms isolated from the throat from cases of scarlet fever, especially those occurring in persons after vaccination.

Experts from the following countries promised to try to undertake work on these lines, viz.: France, Hungary, Germany, the Netherlands, Japan, Poland, Roumania, Czechoslovakia, Yugoslavia.

It is anticipated that the work of immunisation could be carried out on some 10,000 individuals.

In order that the results may be comparable, record cards were drawn up and approved by the experts for both scarlet fever and diphtheria.

It is hoped that in all cases the effect of immunisation will be controlled by Dick and Schick reactions carried out before and after immunisation.

### III. ENQUIRY INTO THE TREATMENT OF SYPHILIS.

As described in the annual report for 1928, in Denmark, France, Germany, Great Britain, and the United States of America the experts on syphilis and cognate subjects have selected clinics from which are being obtained individual case records of venereal diseases. Analysis of the data contained in these records is expected to throw light on the results of treatment by different methods and in different countries.

At the end of 1929, a total of 17,527 case records had been obtained from the participating clinics, and it is expected that this total will finally reach 50,000. The information in these case records is being analysed.

There is a possibility that this enquiry will be extended to Latin America.

Reference will be found in this report (Chapter III) to the co-operation of the Health Organisation with the Bulgarian Government in its campaign against syphilis.

### IV. STUDY OF TUBERCULOSIS MORTALITY IN SCANDINAVIA.

In previous reports, reference has been made to the study of tuberculosis mortality in Scandinavia being carried on by the experts of the three countries under the auspices of the Health Organisation.

A meeting of these experts<sup>1</sup> was held in September 1929 at the Danish State Serum Institute.

<sup>1</sup> *Chairman: Professor Th. MADSEN;*

*Dr. HEITMAN, Director of the Norwegian Tuberculosis Services;  
Dr. NEANDER, Director of the Swedish National Anti-tuberculosis League;  
Dr. OSTENFELD, Director of the Danish National Anti-tuberculosis League;  
Mlle. J. BACKER, Chief of the Norwegian Medical Statistical Service.*

The experts described the principal factors to which deaths from tuberculosis in their respective countries were attributable, as well as the measures of prevention applied. It was not possible to establish a correlation between this mortality and the anti-tuberculosis campaign, or between mortality and other factors. The experts decided to undertake detailed supplementary investigations for the purpose of interpreting the data collected.

Doctor Ostenfeld was selected to act as Rapporteur and to compare the statistical data and experience in the three countries. His report will be submitted to his colleagues some time before the final meeting is held.

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## Chapter VI.

### SYSTEM OF LIAISON WITH THE HEALTH ADMINISTRATIONS OF THE DIFFERENT COUNTRIES.

During 1929, two collective study-tours were organised, and a number of individual missions offered to public health officers on the nomination of their Health Administrations.

#### I. COLLECTIVE STUDY-TOURS (INTERCHANGES).

##### (a) INDUSTRIAL HYGIENE.

This study-tour was arranged by the Health Organisation of the League in co-operation with the Health Section of the International Labour Office. The group comprised ten participants from as many different countries.<sup>1</sup> The interchange began on April 3rd in Lyons, where the participants attended the International Conference on Industrial Hygiene. After leaving Lyons, the group visited Turin, Genoa, Milan and Bologna in Italy; Munich, Augsburg, Nuremberg, Würzburg and Mannheim-Ludwigshafen in Germany, and Lucerne and Zurich in Switzerland.

The participants had ample opportunity of seeing industries differing widely in character, of gaining first-hand knowledge of the risks to health therein incurred, and of the means of preventing or minimising them. The different systems of workmen's insurance and care for the victims of accidents were also demonstrated in the countries visited. Lectures by experts in the various fields of industrial hygiene added to the knowledge gained by practical experience in the factories.

A new feature of this interchange was the introduction of a rest day or half a day during each week in addition to Sunday. This helped to diminish the fatigue which otherwise inevitably appears during the course of several weeks' travel; it also gave an opportunity for the participants to complete and compare notes, and enabled them to study local conditions to better advantage.

The tour ended at Lucerne on May 8th. Reports on the study-tour were prepared by each participant for presentation to his Health Administration and to the Health Organisation.

##### (b) RURAL HYGIENE STUDY-TOUR IN DENMARK AND THE NETHERLANDS.

This study-group consisted of eleven participants from ten countries.<sup>2</sup> As in the first rural hygiene study-tour (annual report for 1928) participation was not restricted to medical officers, an attempt being made to select the different types of technical officers concerned in rural hygiene. Consequently a veterinary surgeon and an administrator of a rural district were invited, while sanitary engineers had participated in the former interchange.

Publications on rural hygiene in Denmark and the Netherlands were supplied beforehand to the participants. An attempt had been made to show the relationship between the level of rural hygiene and education, economic and social development and other related factors. Thus, in Denmark, attention was paid to the Folk High Schools and the extensive co-operative movement.

The interchange began at Copenhagen on June 3rd with a study of the central health services and the central organisations having to do with rural communities. Films were shown to illustrate social, health and economic conditions. Visits followed to characteristic rural areas in all parts of Denmark. Small farms and large holdings were visited, and every characteristic of rural life in Denmark explained, so that the participants could understand the basic conditions underlying the development of rural hygiene.

<sup>1</sup> Austria, Belgium, Czechoslovakia, France, Germany, Great Britain, Italy, Netherlands, Poland and Switzerland.  
<sup>2</sup> Czechoslovakia, Denmark, France, Germany, Great Britain, Greece, the Netherlands, Hungary, Italy and Poland.

On June 26th, the participants began an equally interesting and instructive visit to the Netherlands. The group was received at The Hague by the Central Advisory Health Office, and given full opportunity to study the central health organisation.

In North Holland, particular attention was paid to the systems of public water-supplies in rural districts, whereby water from the same source is piped to a number of villages. In the south, the work of the Green Cross was studied, as it is this organisation which in places deals with cases of tuberculosis, medical treatment, nursing and school hygiene in rural districts.

Housing was a special object of study in the province of Drenthe, where old villages are being removed and replaced by new. The crippled children's clinics were also shown to the participants.

The collection and distribution of pure milk supplies was studied in both countries, as well as such questions as infectious disease control, administration of rural hospitals, welfare measures for rural children, etc.

The interchange ended with a final conference at The Hague on July 9th.

### (c) PROGRAMME OF COLLECTIVE STUDY-TOURS FOR 1930.

1. *A general study-tour has been arranged to take place in France* during the early summer of 1930. There will be from sixteen to eighteen participants from nearly as many countries, and these will include sanitary engineers and public health administrators as well as medical officers.

The group will assemble at Paris on May 26th and will spend the first week studying the central organisation and administration as well as visiting as many medical and health installations as possible. Visits will be paid in the North, to Normandy, the Aisne, to Lorraine and later to the Midi, Haute-Savoie and Burgundy.

There has been a considerable development of public health work in France in recent years, and the tour has been so arranged as to enable the participants to see the newest developments, as in the reconstructed regions, as well as the oldest health organisations, such as the health services of the Department of the Seine-Inférieure. All phases of public health work will be studied including housing, water-supplies, food control and social hygiene, etc.. It is expected that the tour will end at Dijon on July 8th.

2. *A study-tour in Roumania and Yugoslavia* will be held simultaneously with the French interchange. There will be twelve participants from Bulgaria, Czechoslovakia, Greece, Roumania and Yugoslavia, and these will include a number of the senior officials. The tour will begin in Roumania, and has been planned to show all important public health and medical institutes, as well as the most urgent health problems. Thus, special attention will be paid to malaria, and the secretary of the League's Malaria Commission will have charge of that part of the programme.

In Yugoslavia, visits will be paid to the different regions—Croatia, Serbia, Dalmatia and Macedonia, and to the system of public health institutes which are utilised for purposes of investigation and control.

3. The question of a *study-tour of port health officers in the Far East* was raised by the Japanese delegate at the Assembly as well as by the Japanese member of the Health Committee. The tour will start in June 1930, and visits will be made to ports of China, Japan, the Philippines, the Netherlands East Indies and Singapore. There will be from eight to ten participants, all from Far-Eastern countries, in charge of an expert in matters of port quarantine. The tour will be preceded by a survey of certain ports in order to secure the material necessary for the interchange, which will enable the participants to discuss the equipment and methods most useful to Far-Eastern ports. It is expected that the interchange will last six weeks.

## II. INDIVIDUAL MISSIONS.

Individual missions were offered to health officers nominated by their Health Administration in connection with lines of work in which the Health Organisation was engaged.

In accordance with the plan for the reorganisation of the public health services of Greece, five Greek medical officers, who will be appointed to posts in the new health services, were given opportunities for study abroad under the auspices of the Health Organisation. Four of these officials took part in the malaria courses arranged by the Health Organisation, while the fifth visited districts in Denmark, Hungary, Italy, the Netherlands and Roumania. All five then assembled at Zagreb for a six weeks' study of conditions in Yugoslavia. This was followed by short periods of study in France and at Geneva.

Two professors of hygiene (Belgian and French) made a study of the new institutes of hygiene in Central Europe, and submitted interesting reports.

A medical officer from the Health Institute of Bangalore, Mysore, studied at Zagreb, Ljubljana and Rome for a period of one month.

The chief of the Sewage Disposal Department of New Brunswick, N.J. (U.S.A.) visited England, Germany and the Netherlands to examine the latest methods of sewage disposal employed in Europe.

A Chinese medical officer studied child welfare methods in the Netherlands, Great Britain, Italy and Yugoslavia. Six more medical officers from China will be given missions in 1930, in connection with the proposals of the Government for collaboration with the League in health matters.

### .III. INTERCHANGE OF LABORATORY STAFF IN AFRICA.

In conformity with a recommendation of the Second International Sleeping-Sickness Conference, an interchange will be arranged of members of laboratory staffs in certain parts of Africa for the study of sleeping-sickness.

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## Chapter VII.

### I. SLEEPING-SICKNESS.

At its thirteenth session, held at Geneva in October 1928, the Health Committee suggested that the Second International Conference on Sleeping-Sickness, to be held the following month, might deal with questions connected with the health conditions of natives in Africa.

The Conference appreciated the value of enquiries in this direction and asked the Health Organisation to examine the information available on the importance of human trypanosomiasis in relation to other causes of morbidity, and also to study the results of the various medical administrative measures taken in different parts of Africa to deal with trypanosomiasis.

The Health Section has accordingly collected information on this subject and will later present a report to the Health Committee.

During its fourteenth session, in May 1929, the Health Committee adopted the following resolution, concerning the Second International Conference on Sleeping-Sickness:

“ The Health Committee,

“ Having considered the report of the Second International Conference on Sleeping-Sickness, the report by M. Quiñones de León to the Council on the work of that Conference, and the resolution adopted by the Council relating thereto;

“ Attaches special importance to the recommendation of the Conference that the Health Organisation of the League should collect and analyse facts obtainable in regard to the importance of human trypanosomiasis in relation to other causes of morbidity, and expresses the hope that the administrations concerned will co-operate fully in this study;

“ Recommends that the services of the Health Organisation be placed at the disposal of the administration of those territories and that it employ its usual methods of enquiry and work in complying to the fullest possible extent with the recommendation of the Conference;

“ Endorses the recommendation of the Conference concerning the appointment of an expert Committee to assist in co-ordinating trypanosomiasis investigations, and recommends that the following experts be invited to serve on that Committee:

“ Dr. A. BAGSHAWE,  
“ Professor E. VAN CAMPENHOUT,  
“ Professor Aldo CASTELLANI,  
“ Professor MESNIL,  
“ Professor G. PITTALUGA,  
“ Professor R. STRONG.

“ Requests the Medical Director to take all practical action to give effect to the recommendations of the Conference concerning individual interchanges between laboratory staffs.”

At its fifty-sixth session in September 1929 the Council decided, on the request of the President of the Health Committee, to invite Dr. Damas MORA, Director of the Health Services in the Portuguese colony of Angola, to join this expert committee.

### II. INTERNATIONAL SECRETARIAT FOR PHARMACOPŒIA.

In June 1929, the Belgian Government asked the opinion of the League with regard to the establishment of an International Secretariat for Pharmacopœia and two committees, one to study the standardisation of methods for the chemical and physico-chemical dosage of heroic remedies and the other to study the unification of methods of preparing heroic galenic remedies.

Resolutions on this subject had been adopted at the second International Conference for the Unification of the Formulæ of Heroic Drugs, which met at Brussels in 1925. The resolutions of this Conference, which was attended by the delegates of thirty-three Governments, were embodied in a draft International Agreement.

The Council, in September 1929, referred the letter to the Health Committee for consideration and report.



### III. WELFARE OF THE BLIND.

At its eleventh session, the Health Committee approved a proposal by Sir George Buchanan that information on the provision made for the welfare of the blind in various countries should be collected. A circular letter was accordingly sent to the administrations of fifty-six countries, accompanied by a questionnaire concerning the measures in force for the welfare of the blind. By the beginning of 1929, twenty-seven countries had communicated their replies and, on the basis of this official information, a report was drawn up and published in September (document C.H.818).

As regards certain countries whose replies were not received in time, the compilers of the report supplemented this information by particulars obtained from unofficial sources. The Health Organisation secured the services of two experts, one from the British Ministry of Health and the other from the Department of Health for Scotland, to collaborate in the preparation of the report.

As regards the section of the report coming within the sphere of the International Labour Office, the Health Organisation obtained the assistance of the Social Insurance and Disablement Service.

#### ARRANGEMENT OF THE REPORT AND APPENDICES. <sup>1</sup>

"So far as is known, no enquiry on so comprehensive a scale has ever been made into the provision for the blind in various countries, and for this reason, the data now obtained have been set out as fully as possible in the appendices. Each appendix deals with a separate subject and is arranged to show what is being done, under each heading, in the various countries, which are arranged alphabetically. It is hoped that this arrangement will enable ready comparison to be made of the way in which various subjects are dealt with in different countries. Such a presentation must necessarily confine itself, for the most part, to a statement of facts without showing their interrelations or their relative significance. The main body of the report aims at a general description of the work that is being done, showing these interrelations and the relative significance of special methods adopted in particular countries. The report has been arranged so far as is practicable, so that each chapter is illustrated by its corresponding appendix and is consequently not overburdened with detail. By adopting this method, which necessarily involves some repetition, it is hoped that the general reader will be able to obtain from the main report a general survey of the problems of the welfare of the blind and the methods adopted for solving them, and can supplement and verify them from the detailed statement of the facts set out in the appendices. This arrangement also will enable the specialist to turn quickly to that part of this volume which specially interests him.

"It should be observed that the subject of this report is the provision made in various countries for the welfare of persons after they have become blind. It does not therefore aim primarily at discussing the causes and prevention of blindness in detail, but, inasmuch as many of the replies gave valuable information on these subjects in reply to the questionnaire, it has been thought desirable to include such information as is available in a separate appendix.

"The report and appendices are necessarily limited to the replies furnished and to such further information as has been available."

\* \* \*

In a letter to the Secretary-General dated August 14th, 1929, the League of Red Cross Societies, in its own name and on behalf of the Provisional Committee of International Co-ordination for the Prevention of Blindness and of the President of the International Congress of Ophthalmology, invited the Health Organisation to send a representative to the meeting to be held on September 14th at Scheveningen (Netherlands) at the close of the thirteenth International Congress of Ophthalmology. This invitation was accepted.

A special organisation, to be known as the International Association for the Prevention of Blindness, was set up at Scheveningen at the close of this Conference. The Statutes of this Association were drawn up and adopted and several resolutions were passed, of which the fourth reads as follows:

"The International Association for the Prevention of Blindness expresses to the Health Organisation of the League of Nations its sincere gratitude and admiration for the completion of the latter's enquiry into blindness and its causes, which will be of the greatest assistance to international prophylaxis."

An English organisation for the blind has recently sought permission to publish this report in Braille.

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<sup>1</sup> This paragraph is taken from the first chapter of the Report on the Welfare of the Blind.

#### IV. DANGERS RESULTING FROM THE USE OF X-RAYS.

Further information has been received during 1929, in addition to that mentioned in the previous annual report, concerning the laws and regulations in force in various countries for the prevention of dangers from the use of X-rays.

The Public Health authorities of *Czechoslovakia* have forwarded draft regulations prepared by a Commission set up for the study of this subject.

Information received from *Bulgaria, Finland, France, Japan* and *Roumania* indicates that there is no special legislation on the matter in these countries.

The Greek Ministry of Health submitted a memorandum by a committee of doctors constituted to study the legislative measures to be taken for protection against X-rays and radium (document C.H.827).

In *Hungary*, the Ministry of Health has charged a special Committee to study the damage caused by X-rays and to propose preventive measures.

The Director of Health in *Italy* stated that the Ministry of the Interior had decided to bring forward a legislative measure. In *Switzerland*, no Federal law exists on the subject. A copy of instructions established by the Swiss Society of Radiology, Berne 1928, was communicated to the Health Section.

In the *United States of America*, very little federal legislation exists, since the matter generally comes under State legislation.

Information has been received from the *Union of Soviet Socialist Republics* that this subject is dealt with by a Decree of the Commissariat of Work of September 9th, 1925. A copy of this Decree has been supplied by Soviet authorities.

The Health Organisation has secured valuable assistance from the eminent radiologist, Professor Wintz, Chief of the University Gynæcological Clinic at Erlangen, who is preparing a report with Dr. Jitta. Dr. Jitta is preparing draft regulations which might be recommended for use in the various countries.

#### V. ENQUIRY REGARDING THE DEVELOPMENT OF HEALTH CENTRES.

At a meeting of the Health Committee, in May, 1929, the Secretariat was instructed to collect information regarding health centres in certain countries in Europe, with special reference to the lines along which they were likely to develop.

Since October, preliminary investigations have been under way in *Czechoslovakia, Poland, Roumania* and *Yugoslavia*.

It is expected that the matter may be considered by a few experts in the autumn of 1930, with a view to securing definition of certain minimal requirements.

#### VI. RABIES.

The International Rabies Conference, which met in Paris in 1927, directed attention to the necessity for comparing the efficiency and innocuousness of the various methods of antirabic inoculation. For this purpose, a standard form (document C.H.693) for the preparation and publication of statistics was distributed to the Pasteur Institutes of various countries.

Returns on these forms have now been received from thirty-one institutes in seventeen countries. These give particulars of the treatment of more than 31,000 persons. This material has been analysed and a report (now in the press) prepared by Lt.-Col. McKendrick, I.M.S.

The preliminary conclusions reached tend to show that there is no definitive evidence that any one of the methods of preventive treatment has an advantage over the others. This applies in particular to methods employing live vaccines which do not appear to give better results than those using killed vaccines.

It is anticipated that a larger collection of material will be available in subsequent years as several additional Institutes will be using the standard form and making their data available for analysis.

From the information so furnished, it is hoped that, in time, definite conclusions regarding antirabic treatment may be reached.

#### VII. DENGUE.

The severe dengue epidemic which occurred in 1928 in Greece and several other countries of the Eastern Mediterranean area, drew the attention of the Health Committee to the desirability of ascertaining the true prevalence of *Ædes Ægypti* (*stegomyia colopus, vel argenteus*, the vector of the disease).

The health administrations and, in some cases, expert entomologists and specialists in tropical diseases of the countries concerned were requested to furnish data on the prevalence of *Aedes*, as well as on local peculiarities which might be of importance should a repetition of the epidemic occur. This data could be obtained personally or from existing literature.

Information was received concerning the following countries:

Algeria	Morocco <sup>1</sup>
Bulgaria	Palestine
France	Syria
Greece	Union of Soviet Socialist Republics
Italy	Turkey
Malta	Yugoslavia

This information supplemented the reports made by Dr. Raynaud, Dr. Dienot and Dr. Burnet on dengue in the Mediterranean countries (document C.H.751), by Dr. Lutrario on dengue in Italy (document C.H.755), the bibliographical note by Dr. Wenyon and Dr. McGregor (document C.H.756), and the general note prepared by the Health Section (document C.H.758).

Although far from uniform in details and reliability as regards all countries, these data constitute a valuable basis for prophylactic measures in the event of a fresh outbreak either of dengue or yellow fever.

## VIII. DEVELOPMENTS IN THE PUBLIC HEALTH MOVEMENT IN THE UNITED STATES OF AMERICA. <sup>2</sup>

### (a) SURVEY METHOD OF STIMULATING PUBLIC HEALTH ADMINISTRATION IN THE UNITED STATES OF AMERICA.

During the May 1929 session of the Health Committee, Surgeon-General Cumming presented a note on this subject, a summary of which is given in the Minutes (document C.H.805). The Committee decided to include an account of this method in the publications of the Health Organisation.

By the term "survey" is understood the process or result of a critical inspection or examination undertaken for the purpose of ascertaining all the facts, as to quantity, quality or status of the objective of the survey.

In public health, the survey may be likened to the physical examination in the hands of the medical clinician.

To make some differentiation as to the variety of the investigations that have been classed as surveys, the term "public health survey" is applied to those studies that include all the activities, resources and conditions affecting in any way the health of a community. It should include the organisation, administration and work of both the official and the so-called voluntary health agencies.

The term "sanitary survey", on the other hand, is restricted to those studies of various environmental conditions affecting the health of the community either directly or indirectly, such as water-supplies, excreta disposal methods, milk and food sanitation, housing, insect and rodent infestation.

One of the most useful functions of the survey method is the opportunity offered to estimate the progress made from year to year in a given community. For this purpose, "periodic surveys" are essential.

The surveys carried out in the United States of America have made it possible to compare the health services of different cities and to determine some of the defects and shortcomings of public health work.

### (b) HEALTH DEMONSTRATIONS.

Having established the need for developing and extending whole-time health service, especially in small towns and rural areas, it was evident that more rapid progress might be expected if these communities could be shown, objectively, the advantages of adequate service. Realising that the cost of such a service frequently exceeded the funds these communities were able or willing to contribute, efforts to assist these communities gradually took the form of "health demonstrations".

Nearly ten years ago, following surveys of representative rural areas, the United States Public Health Service began to promote greater interest in better provisions for rural health service. Out of this have grown the "demonstrations" or co-operative projects which undertook to set up whole-time county health units. That this method of stimulation has been fairly effective is evidenced by the fact that, at the end of the calendar year 1928, there were reported a total

<sup>1</sup> Dr. Remlinger of Tangiers made proposals for further research.

<sup>2</sup> Abstract of reports submitted by Surgeon-General Cumming and Professor C. E. A. Winslow.

of 461 whole-time county health units, as compared with thirty-seven such units in 1918, an increase of 424 counties in ten years.

The campaigns against hookworm disease and malaria also contributed to improvement in rural hygiene and sanitation. In addition to the Public Health Service, the International Health Board of the Rockefeller Foundation rendered material assistance in these various demonstration projects.

Several private agencies, foundations, and endowment funds have likewise supported various "demonstrations" and mention should be made of the American Child Health Association, the Commonwealth Fund, the Milbank Memorial Fund, and others, including some of the large insurance companies.

The demonstrations have been organised with the intention of transferring full responsibility to the community as soon as it is prepared to maintain it properly. Although it is too early to draw definite conclusions, there is evidence that these demonstrations have contributed very materially to the development and improvement of local health service.

### (c) THE APPRAISAL METHOD OF MEASURING HEALTH SERVICES.

One of the earliest attempts to apply specific ratings to various health services was developed in 1914, in connection with studies of stream pollution undertaken by the United States Public Health Service. These studies endeavoured to examine critically the various factors responsible for the prevalence of typhoid fever as indicated by information and data collected by field surveys of all the communities located on the Ohio River watershed.

In order to compare the conditions found in different communities, a scheme of sanitary ratings or relative values was carefully devised by which specific numerical values were assigned to those factors, such as water-supplies, sewage-disposal methods, and other items of sanitation, that seemed definitely related to the incidence of typhoid fever.

After many revisions, a "sanitary rating" schedule was finally adopted and specific weight factors were assigned to the conditions considered responsible for typhoid fever.

#### *The Appraisal Form for City Health Work.*

The tendency to standardise in other fields has led to a very definite attempt to establish standards for various items of health service. This idea of standardisation, based upon relative values, has become crystallised in the "Appraisal Form for City Health Work", sponsored by the present Committee on Administrative Practice of the American Public Health Association, the American Child Health Association, together with a group of health officers and representatives of other national voluntary health agencies.

Briefly, this appraisal form "contains a list of the major health activities now common to practically all cities; sets forth their relative values in a public health programme; and presents a set of standards for evaluating the adequacy or inadequacy of the different activities under any branch of public health work".

Combined with the appraisal form, as published, there is a schedule which calls for the collection of data essential to appraisal. This schedule contains fourteen sections, each representing a specific field of public health activity, whether carried on by the official authorities or by non-official agencies. To each section or activity are assigned values totalling 100 points, and a weighted value, or factor, is applied to each section in order to adjust the total score to 1,000.

A full record of the progress of this appraisal movement will be found in the third edition (1929) of the "Appraisal Form for City Health Work", published by the American Public Health Association, and in the reports of the Committee published in the Association Journal and elsewhere.

An "Appraisal Form for County Health Work" has been prepared and published (1926) for experimental use. A similar appraisal form for State health work is now under consideration by a special Sub-Committee. Other Sub-Committees have been arranged for the consideration of (1) standard health department reports; (2) model health department ordinances; and (3) model record forms.

In undertaking to devise appraisal forms for health work, the Committee recognised that it might "invite unjustified and damaging criticism of departments having low scores; and it might . . . lead to undue standardisation and to stagnation on the part of cities having high scores". By applying appraisals only with the approval and on the request of the health officer concerned, by avoiding any comparisons of total scores, and by making provisions for periodic revisions of the appraisal forms, it was expected that these hazards would be avoided.

The present appraisal form has been confined, for the most part, to work the relative value of which can be measured by such criteria as number of visits of infants to clinics, tuberculosis

cases hospitalised, laboratory tests performed, etc. It does not undertake to give any credits to funds available or to the adequacy of efficiency of personnel—items representing resources rather than performance. It does not utilise mortality and morbidity rates as measures of results, nor does it directly measure the "healthfulness" of a community.

(d) PLANS FOR "IDEAL" HEALTH DEPARTMENT ORGANISATION.

Growing out of the extensive surveys made by the United States Public Health Service, the American Public Health Association and the American Child Health Association, and to meet the frequent demands for standard or ideal plans of health organisation for cities of different sizes, three such plans have been prepared, as follows:

1. "An Ideal Health Department for a City of 100,000 Population" (1922);
2. "A Proposed Plan of Organisations of Community Health Service for a City of 50,000 Population" (1925);
3. The Organisation and Budget of a Health Department in a City of 20,000 Population (1924). (Revised to apply to a county or district of 30,000.)

Each of these plans includes all powers of health work whether supported by official or non-official agencies. They do not contain provisions for such services as garbage disposal, street cleaning, plumbing and building inspection, operation of water-supply and sewage-disposal systems, industrial or mental hygiene, or care of sick poor.

Professor Winslow mentioned that an effort had been made to avoid any tendency to over-standardisation. The object was to enable each health officer to measure his own work against a general objective standard and the appraisal form was not imposed by any higher administrative agency but represented the effort of the health officer's own organisation to improve the general standards of practice.

Dangerous stagnation was avoided by the revision of the appraisal form every three years to keep pace with rising standards of current practice. The actual quantitative standards of one country would by no means fit another, but it might be of interest to consider the possibility of applying this general principle in certain European countries with the object of developing locally standards applicable to those countries and of obtaining a comparative idea of the importance of various aspects of public health work in different countries.

(e) PROGRAMME OF THE COMMITTEE ON THE COST OF MEDICAL CARE.

Professor Winslow stated that this Committee had been organised to undertake a joint study, with the help of physicians, public health workers, economists and representatives of the general public, of the extent of illness in the United States of America, the type and cost of the treatment given, the remuneration of the medical profession and the success of various experiments in organised medicine to meet the needs of special population groups. The Committee had embarked on a five, year study of these problems and hoped to be able to reach a solution mutually satisfactory to the medical profession, the public health workers and the public.

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Appendix I.

LIST OF PRINCIPAL MEETINGS, MISSIONS, INVESTIGATIONS, ETC., DURING 1929.

I. MEETINGS OF COMMISSIONS.

	Place	Date
1. Fourth Session of the Advisory Council of the Eastern Bureau of the Health Organisation . . . . .	Singapore.	February 14th to 16th.
2. Commission of Health Experts on Infant Welfare . . . . .	Rome.	March 25th to 28th.
3. Cancer Commission: Sub-Commission on Radiology . . . . .	Geneva.	March 25th to 27th.
4. Commission of Expert Statisticians . . . . .	Berlin.	April 3rd to 5th.
5. Joint Commission of the Health Organisation and the International Institute of Statistics . . . . .	Paris.	April 9th to 12th.
6. Fourteenth Session of the Health Committee	Geneva.	May 2nd to 8th.
7. Commission on the Fumigation of Ships . .	Paris.	May 15th.
8. Joint Commission on Anthrax . . . . .	Geneva.	June 17th.
9. Consultation of Experts on Immunisation against Diphtheria and Scarlet Fever. .	Paris.	July 4th to 6th.
10. Meeting of Experts for the Study of Tuberculosis in Scandinavia . . . . .	Copenhagen.	September 25th and 26th.

II. SURVEY OF HEALTH CONDITIONS IN THE PACIFIC ISLANDS.

Departure of the Mission from Sydney . . . . .	December 26th, 1928.
Visit to Fiji Islands . . . . .	October 31st to November 18th, 1928.
Visit to New Caledonia and Loyalty Islands . . . . .	November 25th to December 6th, 1928.
Visit to Papua, the Bismarck Archipelago and the Solomon Islands	February 6th to April 1st, 1929.
Return of the Mission to Brisbane . . . . .	April 6th, 1929.

III. COLLABORATION WITH THE GREEK GOVERNMENT IN THE SANITARY REORGANISATION OF GREECE.

Arrival of the Commission of Experts at Athens. . . . .	January 25th.
Arrival of the Delegation of the Health Committee . . . . .	April 7th.
Departure from Greece . . . . .	End of April.

IV. MALARIA COURSES.

*Theoretical Courses:*

London . . . . .	May 28th to June 28th
Paris. . . . .	June 5th to July 13th.
Hamburg. . . . .	June 10th to July 15th.
Rome . . . . .	July 1st to September 30th.

*Practical Work:*

Navalmoral de la Mata. . . . .	July 18th to August 15th.
Skoplje. . . . .	July 18th to August 15th.
Rome . . . . .	August 19th to Sept. 18th.

V. INTERCHANGES AND GENERAL STUDY-TOURS.

Collective Tour for the Study of Industrial Hygiene . . . . .	April 3rd to May 8th.
Collective Tour for the Study of Rural Hygiene . . . . .	June 3rd to July 8th.
Tour of the Sub-Commission on Preventive Medicine. . . . .	April 8th to 24th.

Tour of the Malaria Commission in India:

Arrival at:	Bombay . . . . .	August 23rd.
	Punjab . . . . .	August 29th.
	United Provinces . . . . .	September 13th.
	Bengal. . . . .	October 23rd.
	Assam . . . . .	November 11th.
	Burma. . . . .	November 22nd.
	Madras . . . . .	December 11th.
	Mysore . . . . .	December 17th.
Departure from:	Bombay . . . . .	December 28th.

VI. INVESTIGATIONS IN CONNECTION WITH ENDEMIC SYPHILIS  
IN CERTAIN AREAS OF BULGARIA. . . . . October 23rd to Nov. 3rd.

VII. MISSION IN CHINA.

Departure from Europe . . . . .	October 2nd.
New York . . . . .	October 10th.
Japan . . . . .	October 28th to Nov. 8th.
China . . . . .	Nov. 9th to Dec. 31st.

VIII. MISSION OF THE SECRETARY OF THE LEPROSY COMMISSION IN LATIN AMERICA.

Departure from Bordeaux . . . . .	February 28th, 1929.
Venezuela . . . . .	March 14th to April 9th.
Colombia . . . . .	April 10th to May 13th.
Ecuador . . . . .	May 16th to 28th.
Peru . . . . .	June 7th to 24th.
Bolivia . . . . .	June 25th to July 2nd.
Chile . . . . .	July 3rd to 15th.
Argentine . . . . .	July 16th to 30th.
Uruguay . . . . .	July 31st to August 9th.
Paraguay . . . . .	August 10th to 20th.
Argentine . . . . .	August 21st to 23rd.
Brazil . . . . .	August 29th to Sept. 12th.

Appendix II.

HEALTH COMMITTEE. — ADVISORY COUNCIL OF THE EASTERN BUREAU. —  
NEW COMMISSIONS FORMED IN 1929. — NEW MEMBERS.

Health Committee.

The mandate of the members of the permanent Health Committee elected in 1923 having expired at the end of 1926, the following twenty-four members were elected or re-elected for a period of three years commencing on January 1st, 1927. The Council, at its December 1929 session, decided to extend their mandate for a further period of six months until June 30th, 1930.

*President:*

Dr. TH. MADSEN, Director of the State Serum Institute, Copenhagen.

*Vice-Presidents:*

(*Ex officio*) M. O. VELCHE, Secretary-General of the Ministry of the Interior and of Health, Brussels; President of the Comité permanent de l'Office international d'Hygiène publique.  
(Elected for 1929) Dr. Witold CHODZKO, former Polish Minister of Health; Director of the State School of Hygiene, Warsaw.

(Elected for 1929) Professor Ricardo JORGE, Technical President of the Public Health Council, Lisbon.

*Members:*

- Professor G. Araoz ALFARO, former President of the National Health Department, Buenos Aires.
- Professor Léon BERNARD, Professor of Tuberculosis at the Faculty of Medicine, Paris; President of the Conseil Supérieur d'Hygiène at the French Ministry of Health, Paris.
- Sir George BUCHANAN, Senior Medical Officer, Ministry of Health, London.
- Professor J. CANTACUZÈNE, Professor of Bacteriology and Director of the Institute of Experimental Medicine, Bucharest.
- Dr. H. CARRIÈRE, Director of the Swiss Federal Public Health Service, Berne.
- Dr. Carlos CHAGAS, Director of the Oswaldo Cruz Institute, Rio de Janeiro.
- Surgeon-General H. S. CUMMING, Chief of the United States Public Health Service, Washington, D.C.
- Dr. J. H. L. CUMPSTON, Director-General of the Commonwealth Department of Health, Canberra.
- General J. D. GRAHAM, Public Health Commissioner with the Government of India, Delhi.
- Dr. C. HAMEL, President of the Reichsgesundheitsamt, Berlin.
- Dr. Alice HAMILTON, Professor of Industrial Hygiene at Harvard University, Cambridge (Mass.).
- Dr. N. M. J. JITTA, President of the Public Health Council of the Netherlands, The Hague.
- Dr. A. LUTRARIO, former Director-General of Public Health, Rome.
- Professor NAGAYO, Director of the Government Institute for Infectious Diseases, Tokio.
- Professor B. NOCHT, Rector of the University and Director of the Institute of Tropical Diseases, Hamburg.
- Professor Donato OTTOLENGHI, Professor of Hygiene at the Royal University of Bologna.
- Professor Gustavo PITTALUGA, Professor of Parasitology at the Faculty of Medicine, University of Madrid.
- Dr. L. RAYNAUD, Inspector-General of the Public Health Service of Algeria, Algiers.
- Dr. M. TSURUMI, representative of the Public Health Service of Japan at the Japanese Embassy, Paris.
- Dr. C. E. A. WINSLOW, Professor of Public Health, Yale School of Medicine; member, Public Health Council, State of Connecticut.

*Secretary of the Committee:*

Dr. L. RAJCHMAN, Medical Director.

**Advisory Council of the Eastern Bureau at Singapore.**

**DELEGATES TO THE SESSION IN FEBRUARY 1929.**

The delegates on the Advisory Council comprise a representative of the following countries:

Australia, China, India, Indo-China, Japan, Japanese Colonies, Netherlands East Indies, Straits Settlements or some other British Colony.

In 1929, the delegates were as follows:

- General J. D. GRAHAM, I.M.S., Public Health Commissioner with the Government of India (Chairman for the year 1929), representing British India.
- Professor NOBECHI, of the State Institute for Infectious Diseases, Tokio, representing Japan (Vice-President for 1929).
- Dr. A. L. HOOPS, representing British Colonies and Dependencies.
- Dr. Yiling MEI, representing China.
- Dr. F. H. GUÉRIN, representing French Indo-China.
- Dr. T. AMAGISHI, representing Japanese Colonies.
- Dr. J. D. REDFIELD, representing Siam.
- Dr. J. VAN LONKHUIJZEN, representing Netherlands East Indies.



**Expert Committee on Sleeping-Sickness.**

Dr. A. G. BAGSHAWE, Director of the Bureau of Hygiene and Tropical Diseases, London.  
Professor E. VAN CAMPENHOUT, Director of the Health Service of the Colonial Office, Brussels.  
Professor Aldo CASTELLANI, K.C.M.G., M.D., Director of Tropical Medicine and Dermatology,  
Ross Institute and Hospital for Tropical Diseases, London.  
Professor MESNIL, Pasteur Institute, Paris.  
Dr. Damas MORA, Director of the Health Services of Angola.  
Professor G. PITTALUGA, Professor of Parasitology at the Medical Faculty, Madrid.  
Professor R. STRONG, Department of Tropical Medicine, Harvard University Medical School.

**Expert Commission on Plague.**

The following member has been added to the Commission:  
Professor ISHIWARA, Chief of the Plague Section, State Institute of Infectious Diseases, Tokio.

**New Members of Commissions:**

*Commission on Education in Hygiene and Preventive Medicine:*

Dr. F. C. YEN, The Dean of the Central University Medical College, Shanghai.

*Permanent Commission on Standardisation (Vitamins):*

Dr. Robert LIM, Professor of Physiology at the Peiping Union Medical College and President of the National Medical Association.

*Expert associated with the Studies on Physical Education:*

Dr. TSU MIN YI, member of the Central Executive Committee of China.

*Sub-Commission on Social Medicine:*

Dr. Shisan C. FANG, former Director of the National Epidemic Diseases Prevention Bureau.

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**Appendix III.**

**LIST OF EXPERTS INVITED TO TAKE PART IN THE CONSULTATION ON  
IMMUNISATION AGAINST SCARLET FEVER AND DIPHTHERIA.**

(Paris, May 1929.)

Professor Th. MADSEN, Director of the State Serum Institute, Copenhagen.  
Dr. BORCIC, Director of the State School of Public Health, Zagreb, Yugoslavia.  
Professor CANTACUZÈNE, Director of the Institute of Experimental Medicine, Bucharest.  
Professor FRIEDEMANN, of the Rudolph Virchow Hospital, Berlin.  
Dr. HIRSZFELD, Director of the State Institute of Health, Warsaw.  
Dr. O'BRIEN, Director, " Wellcome Research Laboratories ", Beckenham, Kent.  
Dr. RAMON, Director of the Pasteur Institute, Garches, Seine-et-Oise.  
Dr. TOMCSIK, State Health Institute, Budapest.  
Professor E. GORTER, Director of the Child Clinic of Leyden University, Netherlands.  
Dr. R. DEBRÉ, Professeur Agrégé d'Hygiène, at the Medical Faculty, Paris.  
Dr. E. H. R. HARRIES, Medical Superintendent, City Fever Hospital, Birmingham.  
Dr. O. SCHUBERT, State Health Institute, Prague.  
Professor FINKELSTEIN, Children's Clinic, Berlin.  
Dr. BIE, Blegdamshopitalet, Copenhagen.

All the above experts, with the exception of Professor Finkelstein, attended the consultation.  
Dr. Tsurumi, member of the Health Organisation of the League of Nations, also attended some of the sessions.

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Appendix IV.

BUDGET OF THE HEALTH ORGANISATION FOR 1930.

(In Swiss francs.)

INTERNATIONAL HEALTH ORGANISATION	ESTIMATES FOR 1930			ESTIMATES FOR 1929			EXPENDITURE 1928 <sup>1</sup>		
	League contribution	Grant from International Health Division of Rockefeller Foundation	Total	League contribution	Grant from International Health Division of Rockefeller Foundation	Total	League contribution	Grant from International Health Division of Rockefeller Foundation	Total
<i>I. Health Committee, Secretariat and General Work of the Organisation:</i>									
1. Sessions of the Health Committee . . . . .	60,000		60,000	60,000		60,000	51,461		51,461
2. Salaries of the Health Section . . . . .	370,944		370,944	362,403		362,403	325,726		325,726
3. Travelling and removal expenses of the Secretariat . . . . .	48,000		48,000	58,000		58,000	47,382		47,382
4. General printing and documentation . . . . .	19,000		19,000	16,000		16,000	17,611		17,611
5. Cables, telegrams and telephones . . . . .	12,000		12,000	13,000		13,000	24,080		24,080
6. Miscellaneous petty expenses and unforeseen contingencies . . . . .	2,000		2,000	2,000		2,000	1,960		1,960
7. Unpaid liabilities in respect of previous years	—		—	6,554		6,554			
<i>II. Intelligence, Technical and Research Work of the Organisation:</i>									
1. Technical Committees and Sub-Committees, Conferences, Missions, work of experts and collective and individual studies . . . . .	240,000	275,305	515,305	250,000	120,397	370,397	233,711	133,433	367,144
2. Salaries of the temporary staff . . . . .		280,109	280,109		237,401	237,401		160,197	160,197
3. Publications, printing and documentation . . . . .	70,000	20,000	90,000	70,000	45,763	115,763	32,300	64,651	96,951
4. Cables and telegrams . . . . .	12,500	10,000	22,500	5,000		5,000			
5. Miscellaneous and unforeseen . . . . .				5,000		5,000	5,655		5,655
6. Contribution to Singapore Bureau . . . . .	15,000	15,000	30,000	15,000		15,000	15,000		15,000
7. Miscellaneous enquiries . . . . .	150,000		150,000						
<i>III. Expenses in connection with a system of liaison between the various national public health services . . . . .</i>	149,450	150,000	299,450	150,000	139,549	289,549	203,553	217,324	420,877
<b>Total . . . . .</b>	<b>1,148,894</b>	<b>750,414</b>	<b>1,899,308</b>	<b>1,012,957</b>	<b>543,110</b>	<b>1,556,067</b>	<b>958,439</b>	<b>575,605</b>	<b>1,534,044</b>

<sup>1</sup> The presentation of the budget having been slightly altered in 1929, the 1928 expenditure has been grouped under the headings adopted for 1929 and 1930.

Appendix V.

BUDGET OF THE EASTERN BUREAU.

ESTIMATES FOR 1930 ADOPTED BY THE TENTH ASSEMBLY<sup>1</sup>.

		1930 Estimates Straits dollars	Expenditure in 1928 Straits dollars
I. Staff Salaries and Allowances . . . . .		57,858	40,928
II. Travelling Expenses of the Staff and Expenses for the Co-ordination of Research . . . . .		5,200	2,358
III. Cables and Postage.	Straits Dollars		
Cables . . . . .	16,300		
Postage . . . . .	600		
	<hr/>	16,900	16,160
IV. Printing, Stationery and Equipment.			
Printing . . . . .	2,550		
Stationery . . . . .	650		
<i>Weekly Fasciculus</i> . . . . .	3,600		
Periodicals . . . . .	900		
Equipment . . . . .	180		
Books of Reference . . . . .	300		
	<hr/>	8,180	5,579
V. Rent, Electricity and Telephone.			
Rent . . . . .	3,000		
Electricity . . . . .	54		
Telephone . . . . .	166		
	<hr/>	3,220	3,189
VI. Travelling Expenses of Members of the Advisory Council .		5,500	—
VII. Miscellaneous.			
Medical attendance to staff . . . . .	200		
Audit fee. . . . .	300		
Miscellaneous . . . . .	1,750		
	<hr/>	2,250	1,379
		<hr/>	<hr/>
		99,108	69,593

Appendix VI.

LIST OF PUBLICATIONS ISSUED DURING 1929.

I. SERVICE OF EPIDEMIOLOGICAL INTELLIGENCE AND PUBLIC HEALTH STATISTICS.

*Periodicals.*

1. *Weekly Bulletins* (bilingual), Nos. 149-200 (approximately 8 to 12 pages each).
2. *Monthly Epidemiological Reports* (bilingual), Nos. 122-133 (approximately 40 pages each).
3. *Annual Epidemiological Reports* (bilingual):
  - E.I.12. — "Statistics of Notifiable Diseases for the Year 1927."  
1 vol., size 24.5 × 32 cm., 66 pages. May 1929.
  - E.I.13. — "Statistics of Notifiable Diseases for the Year 1928."  
(In preparation.)

<sup>1</sup> The expenses of the Eastern Bureau of the International Health Organisation will be met, in 1930, by contributions from:

- (a) Certain Governments;
- (b) The budget of the Health Organisation of the League (including outside grants).

The following Governments contributed towards the expenses of the financial year 1928: China, Dutch East Indies, Federated Malay States, French Indo-China, Japan, Philippines, Straits Settlements.

*Series.*

I. *Statistical Handbooks:*

C.H.741. — "Official Vital Statistics of Ireland" (The Irish Free State and Northern Ireland).  
1 vol., size 18.5 × 24 cm., 112 pages. July 1929.

C.H.771. — "Official Vital Statistics of the Kingdom of Scotland."  
1 vol., size 18.5 × 24 cm., 84 pages. June 1929.

2. *International Health Year-Book. (Annual):*

C.H.733. — *International Health Year-Book 1928* (Fourth Year).

Reports on the Public Health Progress of Twenty-nine Countries (Thirty-five Public Health Administrations) in 1927.

1 vol., size 18.5 × 24 cm., 1,173 pages. August 1929.

II. SPECIAL STUDIES AND INVESTIGATIONS.

1. *BCG Vaccine (Vaccination against Tuberculosis by the).*

C.H.745. — Report of the Technical Conference for the Study of Vaccination against Tuberculosis by means of BCG, held at the Pasteur Institute, Paris, October 15th-18th, 1928.

1 vol., size 16 × 24 cm., 147 pages. May 1929.

2. *Cancer Commission.*

C.H.788. — Reports submitted by the Radiological Sub-Commission on Radiotherapy of Cancer.

1 vol., size 19.5 × 25 cm., 82 pages. July 1929.

3. *Commission of Expert Statisticians.*

C.H.786. — Report of the Second Session of the Commission of Expert Statisticians, held in Berlin on April 3rd, 4th and 5th, 1929.

1 fasciculus, size 21 × 33 cm., 4 pages. April 1929.

4. *Health Experts on Infant Welfare.*

C.H.779. — Report on the Work of the Conference of Health Experts on Infant Welfare, held in Rome on March 25th, 26th, 27th and 28th, 1929.

1 fasciculus, size 21 × 33 cm., 8 pages. April 1929.

C.H.820. — Memorandum relating to the Enquiries into the Causes and Prevention of Stillbirths and Mortality during the First Year of Life.

(In preparation.)

5. *Interchange of Public Health Personnel.*

C.H.691. — Health Organisation in British India. Articles written on the Health Organisation of British India on the occasion of the Interchange Study-tour organised for Medical Officers of Health from the Far-Eastern Countries by the Health Organisation of the League of Nations. January-February 1928.

English edition already distributed in March 1928.

French edition (translated by Dr. P. Hermant, Médecin principal de l'Assistance publique de l'Annam).

1 vol., size 18.5 × 24.5 cm., 420 pages. November 1929.

6. *Malaria Commission.*

C.H./Malaria/127. — Programme of the Malaria Course organised by the Health Organisation of the League of Nations for the Year 1929.

1 booklet, size 16 × 23.5 cm., 29 pages. March 1929.

Mixed French-German-Italian.

7. *Permanent Commission on Standardisation of Sera, Serological Reactions and Biological Products.*

C.H.726. — Report on the Work of the Second Laboratory Conference on the Serodiagnosis of Syphilis, held at Copenhagen, May 21st to June 4th, 1928.

1 vol., size 16 × 24.5 cm., 186 pages. March 1929.

C.H.734. — Memorandum on Cardiac Drugs, Thyroid Preparations, Ergot Preparations, Filix Mas, Suprarenal Preparations, Vitamins, Pituitary, Salvarsan, Oil of Chenopodium, and Insulin, by Professor Knaff-Lenz (Vienna).

1 vol., size 16 × 24.5 cm., 76 pages. December 1929.

C.H.832. — Memoranda on the International Standardisation of Sera and Bacteriological Products, by Professor Carl Prausnitz (Breslau).

1 vol., size 16 × 24.5 cm., 60 pages. December 1929.

8. *Welfare of the Blind.*

C.H.818. — Report on the Welfare of the Blind in Various Countries, based on Replies furnished to a Questionnaire sent out by the Health Organisation of the League of Nations.

1 vol., size 19 × 24.5 cm., 284 pages. September 1929.

9. *Sundries.*

C.H.805. — The Survey Method of Stimulating Public Health Administrations in the United States of America, presented by Dr. H. S. Cumming, Surgeon-General, U.S., P.H.S., to the Health Committee.

(Printed as Annex to the Minutes of the Fourteenth Session of the Health Committee.)  
Reprint: 1 fasciculus, size 21 × 33 cm., 20 pages. September 1929.

III. SPECIAL STUDIES ON SANITARY QUESTIONS PREVALENT IN CERTAIN COUNTRIES.

1. *Greece.* — Collaboration with the Greek Government in the Sanitary Reorganisation of Greece.

C.162.M.63.1929.III (C.H.789). — Report of the Delegation to the Health Committee of the League of Nations.

1 fasciculus, size 21 × 33 cm., 24 pages. May 1929.

C.162(a).M.63(a).1929.III. — Note by the President of the Delegation of the Health Committee (Annex to above Report).

1 fasciculus, size 21 × 33 cm., 4 pages. May 1929.

2. *Pacific Islands.*

C.H.829. — Report of the Mission entrusted with the Survey of Sanitary Conditions in the Pacific Islands, by Dr. P. Hermant (Médecin principal de l'Assistance médicale de l'Indo-Chine) and Dr. R. W. Cilento (Director of the Tropical Hygiene Division of the Health Department for the Commonwealth of Australia).

1 vol., size 19.5 × 24 cm., 116 pages. December 1929.

IV. REPORTS, MINUTES OF SESSIONS OF HEALTH COMMITTEE AND CONSTITUTIONAL QUESTIONS.

A. *Geneva Office.*

1. *General Work of the Health Organisation.*

A.8.1929.III (C.H.783). — Annual Report on the Work of the Health Organisation for the Year 1928.

1 fasciculus, size 21 × 33 cm., 71 pages. May 1929.

2. *Sessions of the Health Committee.*

C.3.M.3.1929.III. — Minutes of the Thirteenth Session of the Health Committee, held at Geneva from October 25th to 31st, 1928.

1 vol., size 21 × 33 cm., 72 pages. March 1929.

C.246.M.85.1929.III. — Minutes of the Fourteenth Session of the Health Committee, held at Geneva from May 2nd to May 8th, 1929.

1 vol., size 21 × 33 cm., 121 pages. September 1929.

C.175.1929.III (C.H.799). — Report (Resolutions) on the Work of the Fourteenth Session of the Health Committee, held at Geneva from May 2nd to May 8th, 1929.

(Annex to the Minutes of the Health Committee, document C.246.M.85.1929.III.)  
Also: 1 fasciculus, size 21 × 33 cm., 7 pages. May 1929.

B. *Far-Eastern Bureau.*

C.48.M.28.1929.III. — Annual Report for 1928 and Minutes of the Fourth Session of the Advisory Council, held in Singapore from February 14th to February 16th, 1929.

1 vol., size 21 × 33 cm., 55 pages. May 1929.

Appendix VII.

RESOLUTIONS OF THE ADVISORY COUNCIL OF THE EASTERN BUREAU AT SINGAPORE.

*(Fifth session held at Bandoeng, February 18th to 28th, 1930.)*

I.

The Advisory Council approves the report of the Director of the Eastern Bureau for 1929 and congratulates the Director on the efficient manner in which he has administered the Bureau during the year.

II.

The Advisory Council having recorded with pleasure an increased efficiency in the broadcast arrangements of the Bureau's intelligence service, a position which has been largely brought about by the co-operation and generosity of the wireless departments of the Governments of French Indo-China, Netherlands East Indies, British India, British North Borneo, Hong-Kong, Madagascar, Japan and Shanghai,

(a) Authorises the Director to convey its thanks to the heads of the various departments aforementioned;

(b) Notes with great satisfaction the generous offer of the Director of the Netherlands East Indies Post, Telegraph and Telephone Services to arrange for a daily broadcast of the Bureau's bulletin for ships at sea.

III.

The Advisory Council resolves that its warmest appreciation be tendered to the Government of the Netherlands East Indies for their kind invitation to hold the annual meeting of the Council in Java, for the great facilities afforded it during its meeting in Bandoeng, for the ample opportunities given to the members to study the excellent organisation of medical research and of preventive and curative medicine in the Netherlands East Indies, and for the generous hospitality accorded to the delegates.

IV.

The Advisory Council passes the accounts for the year 1929, which have been duly certified by the auditors of the Bureau; and having considered carefully the proposed estimate of \$101,981 for the year 1931, approves of it.

V.

The Advisory Council records with thanks the donation of \$500 (gold) by Mr. J. J. Forstall of Chicago as a contribution towards the expenses of some special object of research in which the Bureau is interested.

VI.

The Advisory Council having noted the remarks of the Health Committee in regard to the collection of epidemiological information regarding the interior of the countries associated with the Eastern Bureau, points out that such information is already being supplied by thirty-five countries, a list of which appears in the Director's report.

VII.

The Advisory Council, having considered certain improvements which, as a result of recent experience, should, in its opinion, be made in the broadcasts of the Bureau's epidemiological intelligence service, and believing that a satisfactory solution will be furthered if the problem is dealt with by international agreement between the competent authorities, requests the Health Committee to submit the question to the Technical and Advisory Committee for Communications and Transit of the League of Nations with a view to the two committees studying this item of international collaboration in order that adequate suggestions may be framed for the use of all concerned and eventually for presentation at the forthcoming Conference for the Revision of the International Radiotelegraph Convention of Washington, 1927.

VIII.

The Advisory Council, having considered the reply of the Director of the Office international d'Hygiène publique, dated July 12th, 1929, to a letter from the Acting Medical Director of the

Health Section of the League of Nations, dated June 25th, 1929, concerning the enforcement of certain measures in regard to vaccination against smallpox by the Port Health Authorities of Marseilles in May 1929, desires to express its unanimous opinion that, in the interest of international co-operation for the prevention of disease, any information regarding measures taken by the health authorities of a country situated outside the Eastern area against the arrivals from a country situated in this area should be communicated telegraphically by the Office international d'Hygiène publique to the Eastern Bureau as a regional information centre.

IX.

The Advisory Council resolves that special attention be given during the coming year to the collection of documentation on pneumonia with a view to the consideration at a future annual meeting of the desirability of appointing an expert committee on this disease.

X.

The Advisory Council is of the opinion:

(a) That in view of the momentous consequences which the introduction of yellow fever into one of the tropical Asiatic countries would entail and of the results of investigation in the Netherlands and England regarding the susceptibility of culicids and monkeys from British India and the Netherlands East Indies, nothing should be left undone to prevent the introduction of yellow fever into such countries of Asia as are known to be liable to infection;

(b) That stringent measures should be taken against the entry of the disease, the most urgent being:

(1) The interdiction of all air traffic from infected or even suspected areas to any of the countries in the regional area of the Eastern Bureau until such time as the measures concerted by the Office international d'Hygiène publique are being effectually applied;

(2) The prohibition by law, under severe penalty, of the importation or possession of yellow fever virus for any purpose in all countries in the East liable to infection with this virus;

(c) That to attain this object the closest co-operation between all interested countries is necessary, and that the Health Committee be therefore requested to bring this resolution to the notice of all administrations concerned.

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Geneva, September 19th, 1930.

LEAGUE OF NATIONS

**WORK OF THE HEALTH ORGANISATION**

**REPORT OF THE SECOND COMMITTEE TO THE ASSEMBLY**

*Rapporteur* : Miss Susan LAWRENCE (British Empire).

I am profoundly sensible of the honour which my colleagues on the Committee have conferred upon me in assigning to me the task of Rapporteur on this important subject. It is an honour which has not before been conferred on a delegate of the British Empire, and the Assembly will forgive me if I recall with a certain pardonable pride that more than one important international conference on the health work of the League has been held at the offices of the British Ministry of Health in London. And, in considering the work which is being done to improve the conditions of health in my own country, and the contributions we are making to health work in the British Empire by our School of Hygiene and Tropical Medicine and by our most recent school of post-graduate medical education, a reflection presents itself to my mind which I feel is shared by the delegates of all the nations present — which, like myself, have come from long study of their own countries to this work of the League — how essentially similar, in spite of the wide differences of local circumstances, are the problems which confront us; how the same difficulties repeat themselves in every crowded urban area and in every scattered rural population; and how infinitely valuable is the experience of each of us to all the others.

Before reviewing in general terms the work of the Health Organisation during the period which has elapsed since the last Assembly, I should like to stress the importance of that work to the League as a whole. As one of the technical organisations of the League, it has achieved results which show the success which international co-operation through the League may achieve in technical matters. International co-operation in health matters is relatively easy. There are few, if any, vested interests comparable to those which act as a bar to progress in the economic field. In that even more difficult field of international co-operation, the political, success is to be won only by the greater determination and more strenuous efforts needed to overcome more serious obstacles.

New world conditions, as well as the obligations assumed by Governments which have subscribed to the Covenant, imply the assumption of a new responsibility by health administrations — the responsibility of co-operation, and of placing at the disposal of all the special information and experience which some have gained. And, indeed, these duties are emphasised in the Covenant itself, which recognises the value of a more rapid evolution of health and welfare work in every country through international co-operation.

Nearly ten years have elapsed since the League's Health Organisation began its work, and, as one studies its development, the various steps in its solution are clearly apparent. Each separate question naturally passes through three stages — that of study and the collection of information, that of forming general judgments on the basis of the material collected, and, then, finally, a stage of action. And, speaking quite broadly and generally, we may say that the ten years' work of the Health Organisation of the League corresponds roughly to those three stages — although obviously the last stage, that of action, will generally be carried out, not by the League, but by the individual Governments united here in a common purpose.

The first period in the work of the Health Organisation was mainly occupied by general studies and surveys, in order to learn and define the problems which might be susceptible of solution by the new international health agency. These covered a wide field; so wide that, on more than one occasion, members of this Committee expressed the fear that the vast field of work contemplated by the Health Organisation might be beyond its strength and its means. Nevertheless, it was necessary to explore widely the possibilities of international co-operation, because of the diversity of the problems facing the health administrations, not only as between European countries, but also as between countries of the New and Old Worlds and Asia.



This period permitted the Health Organisation to learn the needs of the various health administrations, which might be satisfied by common studies and co-operative action which it could promote. As examples of this work of the Health Organisation, I would instance how, at different times, a group of countries have needed to exchange experience about the control of tuberculosis or rabies, about infant welfare, sleeping-sickness in Central Africa, or on methods of education in hygiene. These needs have to be realised and satisfied one by one according to the judgment of the Health Committee and the Medical Director. There is no finality to these questions, and it is altogether desirable that new proposals for international study should be made to the Health Committee and considered year by year.

Some examples of this may here be given. Recently, Great Britain found itself among the countries in which the public, as well as the Government, desired to extend the beneficial effect of radium in the treatment of cancer, and they found a large sum of money to purchase radium for hospitals. But questions at once arose about the best and most economic method of applying radium. When this was put before the Health Committee, it was found that many other countries desired the same international study; it has been begun and already has produced most useful results.

In the Second Committee, during the present session, some noteworthy suggestions were made by delegates who spoke on the work of the Health Organisation.

The delegate from Australia mentioned the enquiry into the health conditions of certain Pacific islands, undertaken by the Health Organisation at the request of his Government. In view of the results of that enquiry he suggested that it would be desirable for the Health Organisation's Malaria Commission to undertake a mosquito survey of Melanesia.

The delegate of Japan hoped that the leprosy studies undertaken by the Health Organisation would be continued and extended.

The delegate of Venezuela spoke of the value of medicinal plants and their active principles in the treatment of disease. In the case of some of these plants, it was difficult to secure a quantity sufficient for medical purposes, because of the difficulty of collecting them and the lack of supervision. The unsystematic exploitation of cinchona, for example, had led to deplorable results. The interest taken in this subject was shown by the constitution of numerous national associations, and the conclusions of the two international congresses held at Vienna and Budapest. The delegate of Venezuela was of opinion that it would be advisable to arrive at a more systematic utilisation of medicinal plants by a co-ordinated study of their active principles, their distribution and their utilisation throughout the world. He suggested that the Assembly should request the Health Committee to decide whether the technical study of this problem was opportune, and if opportune, to plan the studies to be undertaken.

The suggestion — it will be clear to the Assembly — is one which might usefully be discussed with the International Institute of Agriculture whose competence in this field is well-known.

These are examples of the kind of international enquiry which it is open to any country to ask the Health Committee to consider from the point of view of practicability and priority.

All countries have desired to increase their facilities for learning about the spread of infectious diseases throughout the world, whether through the operation of the existing international Conventions on the subject or otherwise. It is on the basis of this universal demand that the Health Organisation has developed its well-known system of world "epidemiological intelligence", not only at Geneva, but at its important Far-Eastern Bureau at Singapore, to which so many public health administrations now contribute information, and from which they will doubtless continue to derive increasing benefit.

The delegates of Australia and Japan at the Second Committee of the present Assembly expressed the desire to see the work of this bureau widened and extended so that it might act as a general branch for the health work of the League in the East.

According to the Japanese delegate, Japan was also anxious that the system of fellowships for the benefit of specialised health officers from the East should be maintained.

The delegates of India and Persia expressed the desire to see appropriate studies of plague and cholera undertaken by the Health Organisation. As the Singapore Bureau has already undertaken enquiries into the epidemiology and prevention of these diseases, it is proper that the study of these subjects should be continued by that branch of the League's Health Organisation.

The next period in the evolution of the Health Organisation may be termed the period of the formation of general conclusions. The early work of the Malaria Commission is a good example for the development from the first to the second stage. First came the surveys and studies of the malaria problem in many countries by delegations of the Malaria Commission in order to determine its limits and possibilities as a field for international action. Studies and surveys of this kind went on for four years, resulting in the collection of a large amount of information. The time was ripe for a session of the full Malaria Commission to determine the points in connection with the prevention of malaria on which agreement was general. As a result of this Conference, some general principles of action were laid down which must be invaluable for any Government which has to organise its anti-malaria services. But, if

this session resulted in finding common ground on the methods and principles which must govern the campaign against malaria, it revealed also divergencies of opinion which could only be solved by further studies conducted on an international basis. The Commission therefore agreed on a programme of common studies to elucidate these points, and studies on these lines are now being carried on in different countries by workers who are kept in touch with each other through the League's Health Organisation.

The third period characterising the work of the Health Organisation is the period of what may be called action — the response to the application of particular Governments for advice or assistance in their peculiar problems. This is the stage which has now been reached in respect of certain of the Health Organisation's activities.

The first tentative steps leading in this direction were taken early in the history of the Health Organisation, when different Governments sought to utilise the experience gained and the information collected by that Organisation in special subjects.

For example, the Health Organisation made a sanitary survey of malaria in Corsica at the request of the French Government. At the request of the Government of Bulgaria it gave advice on anti-malaria measures. At the request of the Government of Persia it advised on the establishment of an anti-malaria service within the framework of its health administration. Requests from the Governments of Argentine, Brazil, Chile and Uruguay had as object the undertaking of joint studies into infant mortality. A sanitary survey of certain islands of the Pacific was made at the request of the Government of Australia, and studies of malaria in India were undertaken at the invitation of that Government.

Not until recently, however, did any Government request the co-operation of the League's Health Organisation in matters covering the whole field of public health.

The Assembly will recall that, at this time last year, the Council considered a request from the National Government of the Republic of China for the despatch of a mission from the League to explore with the Chinese Ministry of Health the possibilities of collaboration in health matters. The Council decided that the League should give every assistance to China in her efforts for reconstruction; and a Secretariat mission, after discussing detailed plans for collaboration with the Government of China, brought back detailed proposals to this end, which were accepted by the Health Committee and by the Council.

I am sure I am expressing the feelings of all those present when I say that we are watching with the utmost sympathy and admiration the manner in which the Government of China is attacking the common foes of humanity — disease and the conditions which produce disease.

Let me here mention the progress which has been made in the League's co-operation with China since the return of the Secretariat mission. At Nanking, a central field health station is about to be established under plans suggested by the experts designated by the Health Organisation. A distinguished Danish authority on medical education is now also visiting China, while arrangements to facilitate the new Chinese port health administration have made substantial progress.

In like manner, as regards Greece, the recommendations of the Health Organisation made to the Greek Government last year have been followed up, and a plan of reorganisation has been elaborated. The new School of Hygiene will open its doors in November for the admission of candidates for posts in the new public health service, and in the country districts selected for the application of the plan the preliminary work has already been completed.

On the other side of the world, in Bolivia, two expert officers of the Health Section have already, in pursuance of the request of the Bolivian Government, undertaken special health surveys in that country. Reports of this work in China, Greece and Bolivia are to be presented to the Health Committee at its coming session.

Health work has an important reaction on economic conditions. The aim of health work is to raise the standard of life and, to realise this, one has only to consider a malarial region, where the crops lie ungarnered in the field, because the harvester is stricken with this disease. A population undermined by disease cannot prosper. On the other hand, economic conditions affect health work favourably or adversely, and even conditions of transit may favour or prevent the solution of health problems. How, for instance, can a modern health service exist in a region without proper communications and transit facilities? Without communications, disease cannot be notified; and, without means of transport, the public health and medical services cannot reach, nor carry on their work in, the affected area.

These simple examples suffice to show that, raising the standard of life, which is the aim of all Governments, may be influenced by health conditions, by communications and transit, by economic and financial conditions. Health does not stand alone, but is only one factor in a situation, the resultant of many others. There may be need for a union of effort in this field. Not the least need is that the League itself should be in a position to place the experience gained by all three technical organisations at the disposal of Governments seeking assistance of any kind with the object of raising the standard of life and reconstituting

certain of their territories on a new and higher plane. The success of international, as well as national, health work is so linked up with economic, financial and social conditions that to select only one of these factors for study and action is to court failure.

I may be pardoned for mentioning these other problems in a report on the work of the Health Organisation; but the experience of the League's Health Organisation has clearly shown the relationship of these factors, and I am sure that this interdependence is fully appreciated by this Committee, which must deal with them all.

So much for the general nature of the work which we are considering. The Assembly will not wish to pass from it without a tribute to those who have carried it out, and, first and above all, to the Medical Director, Dr. Rajchman, of whose zeal, devotion and inspiration we have so many continual proofs. He has been well aided by the staff of the Health Section of the Secretariat. Our best thanks are also due to the Health Committee, a small body several of whose members have served from the foundation of the Organisation and have spared no trouble to give the League the technical guidance which it needs. And we must never forget that it is the co-operation of the different health administrations and of the many experts who have given their services in different lands that makes it possible for us to record satisfactory progress from year to year. I should like to ask the Assembly to signify to these experts also our sincere appreciation of their real sacrifices in the cause of international co-operation.

The work of the Health Organisation since the last Assembly will be found described in the documents before you; notably, the annual report of the Medical Director for 1929 (document A.9.1930.III) and in the report of the Secretariat on the work of the League since the last Assembly (documents A.6.1930 and A.6(a).1930) and the report on the Singapore Bureau.

Special reference should be made to the important study of malaria prevalence and control carried out by members of the Malaria Commission in India at the invitation of the Government of India, which placed at the disposal of the Commission the treasures of information which they possess. Suggestions arising therefrom will be considered at the forthcoming session of the Health Committee.

At the last Assembly, an account was given of studies on infant mortality carried out in Europe in the selected districts of seven countries. Last July, a conference was held at Lima (Peru) to study the results of the enquiry in the four Latin-American countries—the Argentine, Brazil, Chile and Uruguay. When the child health experts met last year in Rome to consider the results of the European enquiries, they recommended that the health administrations of other countries should undertake similar studies in view of the value of these studies in the campaign against infant mortality. This recommendation has been acted upon by a number of countries in Europe and Latin America (Czechoslovakia, Peru, Roumania, Spain, Yugoslavia, etc.) and the Assembly will be pleased to learn that the experience and advice of the Health Organisation have been made available to these health administrations.

The success which has attended the enquiries set up in this way into a certain limited aspect of infant welfare suggests that these investigations might well be extended in some or all of the directions indicated in the memorandum (document C.H.820) already issued. For example, the high rate of mortality during the first days of life, together with the still-birth rate, which apparently remains constant in most countries, is largely due to obstetric causes, and an enquiry into the maternal mortality associated with child-bearing might not only indicate means of reducing the death rate among women, but also of lowering neonatal mortality of infancy.

Much remains to be learned regarding the prevention of respiratory diseases, which are so frequently infective in character; of certain specific diseases, such as whooping-cough or measles. The same applies to the study of the health of the child between infancy and school-age, and of the best methods of maintaining nutrition and preventing disease during this period.

The enquiry into the results of the treatment of syphilis is another example of common international conclusions. The records of treatment from selected clinics in five countries are to be subjected to searching analysis according to methods agreed upon by an international group of experts. These experts met this year at Copenhagen to consider questions which had arisen in connection with the analysis of some 23,000 case-records.

In connection with syphilis, I should also like to mention the work of the Health Organisation in connection with the laboratory diagnosis of syphilis. Two important laboratory conferences to compare the results of different methods of laboratory diagnosis have been held in Europe. Feeling the need of such a laboratory comparison of methods in Latin America, the Uruguayan Institute for the Prevention of Syphilis called such a conference at Montevideo, and the Government of Uruguay requested the Health Organisation to select its presiding officer. The facilities of the Health Organisation have been placed at the disposal of the Conference, which is carrying on its work during the present month.

I may draw your attention to the completion last year of the collection of national data relating to the welfare of the blind, and take this occasion to express the hope of my Government — which, I feel sure, will be shared by other Governments — that the several organisations of the League, including the Health Organisation, will keep in touch with the efforts

which are being made to develop international co-operation for the welfare of blind persons. The international conference on this subject, which is being planned for 1933, may give a suitable occasion for the liaison desired.

Courses of study, so-called interchanges, have been held in France, Yugoslavia and Roumania during the year. In France, the group of public health officers was given every opportunity to study the new health services which have been built up in the regions where so much reconstructive work has been carried on. The new type of health work in Yugoslavia, designed to improve social and economic as well as health conditions, was studied by a group of fourteen health officers, who also spent a fortnight in Roumania, studying new features of the health and medical work. The trouble taken by the authorities in these three countries to make the courses instructive deserves a special word of recognition.

One of the tasks which has fallen upon many European Governments in their attempts at development and reconstruction has been to train public health officers for this work. The several schools of hygiene which have been established for this purpose have needed to exchange experience and compare methods so as to make good progress. The Health Organisation has fostered this exchange of experience and comparison of methods and results by convening the directors together with the leaders of longer-established schools of hygiene from time to time for consultation and discussions.

Meetings of this kind were held at Dresden and Paris during the summer, and the directors not only agreed on certain general principles which should govern the courses of instruction — the field work and training in sanitary engineering — but also decided on a programme of activities, as in most instances these schools and institutes of hygiene have administrative as well as educational responsibilities.

In closing, I should like to insist for a moment, as all my predecessors have done, on the universality of the work of the Health Organisation. This work is being carried out in many countries distributed over all the continents. With this wide geographical distribution on the one hand, and with the diversity of medical and public health problems on the other, the Health Committee has always a difficult task in advising on programmes and progress. The League necessarily looks to that Committee, as well as to its permanent staff, for the careful selection of subjects which the Health Organisation is most fitted to pursue with practical success. The Health Committee is appointed for terms of three years, and the new Committee, the third, will hold its first session at the end of this month.

In this work of reconstruction in which the world is interested, from the economic and social as well as the public health point of view, I ask the Assembly to join me in wishing every success to the work of the new Health Committee, of the Medical Director and the permanent Health Organisation, and of the League.

The Second Committee proposes the following resolution to the Assembly :

“ The Assembly :

“ Recognising the importance of the work of the Health Organisation to the League as a whole, and the value of that work in connection with problems of development in all countries ;

“ Expresses the hope that the experience gained by this Organisation may be made available in increasing measure to Member States of the League ;

“ Notes with satisfaction that the activities of the Health Organisation continue to extend to countries in all parts of the world, and that during the past year they have been specially exercised in certain countries which have invited the technical advice of the League in the development of their public health services ;

“ Approves the work carried on by the Organisation since the last session of the Assembly ; and

“ Expresses its appreciation to the members of the Health Committee, as well as to the different health administrations and individual experts who have contributed in so large a measure to the success of their activities. ”

\* \* \*

In connection with the report on the work of the Health Organisation, the Second Committee, on the proposal of its Chairman, discussed the proposal of the Hungarian Government for a study of international reciprocity in the care of the sick (document A.24.1930.III).

After discussion, the Committee decided to recommend to the Assembly that this proposal should be communicated to the Health Committee for study and report. The delegate of Hungary having expressed his concurrence, I would invite the Assembly to agree to this course.

[Distributed to the Council and  
the Members of the League.]

Official No.: **C. 627. M. 248.** 1930. III.

Geneva, December 1930.

LEAGUE OF NATIONS

**HEALTH COMMITTEE**

6

**MINUTES**

OF THE

**SIXTEENTH SESSION**

Held at Geneva from September 29th to October 7th, 1930.

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LIST OF MEMBERS.

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The following members were present at the session :

Dr. Th. MADSEN, Director of the State Serum Institute of Denmark, *President*.

M. O. VELGHE, President of the Comité permanent de l'Office international d'Hygiène publique, Paris ; Honorary Secretary-General of the Ministry of the Interior and of Health, Member-Secretary of the Conseil supérieur d'Hygiène publique of Belgium, *Vice-President (ex-officio)*.

Dame Janet CAMPBELL, Senior Medical Officer at the English Ministry of Health, *Vice-President*.

Professor Léon BERNARD President of the Conseil supérieur d'Hygiène publique of France, Professor of Clinical Tuberculosis at the Faculty of Medicine of Paris.

Professor Jules BORDET, Director of the Pasteur Institute, Brabant, Brussels (Holder of the Nobel Prize).

Sir George BUCHANAN, Senior Medical Officer, English Ministry of Health.

Dr. H. CARRIÈRE, Director of the Swiss Federal Public Health Service.

Dr. Witold CHODZKO, former Polish Minister of Health ; Director of the Polish State School of Hygiene.

Professor J. G. FITZGERALD, Professor of Hygiene & Preventive Medicine. Director of the School of Hygiene and Connaught Laboratories. University of Toronto (Canada).

Dr. C. HAMEL, President of the Reichsgesundheitsamt of Germany.

Dr. N. M. J. JITTA, President of the Public Health Council of the Netherlands.

Professor Ricardo JORGE, Technical President of the Conseil Supérieur d'Hygiène, of Portugal.

Dr. A. LUTRARIO, former Director-General of Public Health at the Ministry of the Interior of Italy.

Professor G. PITTALUGA, Professor of Parasitology at the Faculty of Medicine, and Director of the School of Hygiene University of Madrid.

Dr. L. RAYNAUD, Director of the Health Services, Algeria.

Dr. M. TSURUMI, Representative at the Paris Embassy of the Central Sanitary Bureau, Ministry of the Interior, Japan.

Dr. L. RAJCHMAN, Medical Director, Secretary to the Committee.

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The following also attended the sessions of the Committee :

Dr. P. Z. KING, Chief of the Department of Health and Sanitation at the Ministry of Health of the Government of the Republic of China (*representing Dr. Heng-Liu*).

Surgeon John MACMULLIN, Medical Director and Chief Medical Officer in charge of the general supervision of the United States Public Health Service activities in Europe (*representing Surgeon-General Cumming for the work of the Sub-Commission for Quarantine*).

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The following members were absent :

Professor Vittorio ASCOLI, Professor of Medical Clinic of Rome University, Member of the Academy, Director of the Superior School of Malariology, Rome.

Professor J. CANTACUZÈNE, Professor of Bacteriology, and Director of the Institute of Experimental Medicine, Bucarest, *Vice-President*.

Professor Carlos CHAGAS, Director of the Oswaldo Cruz Institute, Rio de Janeiro.

Professor J. JADASSOHN, Director of the Dermatological Clinic of Breslau University.

Dr. A. STAMPAR, Inspector-General of Public Health at the Ministry of Social Welfare and Public Health, Yugoslavia ; Professor of Social Medicine at the University of Zagreb.

Professor J. SCOSERIA, President of the Conseil supérieur d'Hygiène of Uruguay (nominated at the first session of the Health Committee).

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The following also attended the meetings of the Committee :

H. E. Mr. A. PAPPAS, Under-Secretary of State at the Ministry of Health, Athens.

M. S. GAS, Director of Public Welfare and Health, Ministry of Health, Paris.

M. Georges ABT, Director of the Office international d'Hygiène publique, Paris.

Mr. Michael HESELTINE, Assistant Secretary, Ministry of Health, London.

Mr. Alexandre PALLIS, Secretary-General of the Greek Ministry of Health, and Director-General of the Athens Centre.

Professor W. A. P. SCHÜFFNER, Director of the Tropical Health Department of the Royal Colonial Institute, Amsterdam.

Professor TANDLER, Director of the Institute of Anatomy, University of Vienna.

Dr. N. H. SWELLENGREBEL, Professor at the Institute of Tropical Hygiene, Amsterdam.

Professor JESSNER, Chief Medical Officer at the Dermatological Clinic of Breslau University.

Dr. P. HERMANT, Chief Medical Officer, Ministry for the Colonies, Paris.

Dr. R. DEBRÉ, Professor at the Faculty of Medicine, Paris.

Dr. Norman WHITE, Director of the Athens Centre and School of Hygiene.

Dr. M. KACPRZAK, Chief of the Department of Health Statistics, Polish State Institute of Hygiene, Warsaw.

Dr. TSAI, Ministry of Health, National Government of the Republic of China, Nanking.

Dr. J. PARISOT, Professor of Hygiene and Preventive Medicine at the Faculty of Medicine, Nancy.

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## FIRST MEETING.

*Held on Monday, September 29th, 1930 at 11.30 a.m.*

*President: Dr. Th. MADSEN.*

### 458. Opening of the Session.

The DEPUTY SECRETARY-GENERAL declared open the first session of the new Health Committee (sixteenth session). He emphasised the fact that during the term of office of the previous Committee the influence of the Health Organisation had developed in a very remarkable manner. The results of its work had gained for it an authority which was unequalled in the League of Nations, though its work obtained less publicity, because it escaped discussion on account of its scientific character.

The Deputy Secretary-General welcomed the new members of the Committee on behalf of the Secretary-General and expressed the hope that their work would be successful.

On behalf of his colleagues, M. VELGHE thanked the Deputy Secretary-General for his observations. The Committee was aware of the duties which faced it and would do its best to deserve the praise accorded to it.

### 459. Election of the President.

On the proposal of M. Velghe, *Dr. Th. MADSEN was unanimously elected President.*

The PRESIDENT thanked the members of the Committee for the honour they had paid him in electing him President for the fourth time. The scope of the Committee's work increased every year, and its President's responsibility became greater. He accepted that office, and would carry out his duties to the best of his ability.

The Health Committee had succeeded, by the methods it had employed to solve international problems, in establishing the closest relationship between different nations, and had thus worked in conformity with the real spirit of the League of Nations. Its work had, however, been greatly facilitated by the attention and help which the Secretary-General and the Deputy Secretary-General had always afforded the Committee. The Committee asked M. Avenol to express its gratitude to the Secretary-General and to his colleagues, and to assure the Secretary-General of the Committee's devotion to the work of the League of Nations.

### 460. Welcome to New Members and Absence of Certain Members.

The PRESIDENT welcomed the new members of the Health Committee : Dame Janet Campbell, Professor Jules Bordet and Professor Fitzgerald. He also welcomed Dr. King, representative of H. E. M. Heng-Liu, who was unfortunately detained at Nanking by important duties.

The President regretted the absence, owing to illness, of Professor Ascoli and Professor Cantacuzène. The Committee hoped that they would speedily recover.

Professor Chagas had been unable to leave Rio de Janeiro in time to take part in the session. Surgeon-General Cumming and General Graham, who were also detained in their own country, would be represented by Dr. MacMullin and Dr. Mackie respectively. Dr. Stampar, as well as Professor Jadassohn who was now presiding over the work of the South American Serological Congress at Montevideo, would be unable to attend the session. Dr. Carrière would be in Geneva on the next day.

The President also welcomed Mr. Heseltine, Assistant Secretary at the English Ministry of Health, as well as M. Pallis, Secretary-General to the Under-Secretariat of State for Health in Greece and Director of the Athens Centre. The President had great pleasure in informing the Committee that Dr. Pappas, Under-Secretary of State for Health in the Greek Government, and Dr. Serge Gas, Director of Public Health in France, had been able to come to Geneva in order to take part in the discussions of the Committee on its work in their respective countries.

Professor Schüffner, who had presided over the delegation of the Malaria Commission to India, would describe the results of that mission. Dr. Hermant would describe the results of the mission to the Southern Pacific Islands, in which he had taken part. Professor Debré would give the Committee information regarding the Conference on Infant Mortality at Lima, which he had attended in July 1930. Professor Jessner and Professor Swellengrebel would take part in the discussions of the Committee on the work done in Bulgaria in connection with syphilis and malaria respectively.

The President welcomed Dr. Abt, Director of the Office international d'Hygiène publique and M. Parisot, professor at the University of Nancy. He also welcomed Dr. Mackenzie and Dr. Pascua, on their return from Bolivia, Dr. Park on his return from his long mission to the Far East, and Dr. Norman White. Dr. Olsen had co-operated in the work of the Montevideo Serological Congress. Dr. Tsai of the Chinese Ministry of Public Health had come from China to hold himself at the disposal of the Quarantine Commission.

#### 461. Constitution of the New Health Committee.

The PRESIDENT explained that the Permanent Committee of the Office International d'Hygiène publique, at its meeting on May 12th, 1930, had proceeded to elect the members of the Health Committee whom it was its duty to appoint. The following were elected :

M. VELGHE  
Sir George BUCHANAN  
Dr. H. CARRIÈRE  
General J. D. GRAHAM  
Dr. C. HAMEL

Dr. N. M. J. JITTA  
Professor Ricardo JORGE  
Dr. A. LUTRARIO  
Dr. L. RAYNAUD  
Dr. M. TSURUMI

The President and the permanent Vice-President, who had been requested by the Health Committee to make the necessary proposals to the Council for the appointment of the members of the Committee, had submitted the following names, which the Council had approved :

Professor Vittorio ASCOLI  
Professor Léon BERNARD  
Professor Jules BORDET

Dame Janet CAMPBELL  
Dr. J. HENG-LIU  
Professor Th. MADSEN

Since on the other hand the Health Committee could co-opt health experts and assessors, the President and permanent Vice-President, with the object of placing before the Council full information regarding the final composition of the new Committee, had communicated the following names, feeling confident that they would obtain the unanimous approval of their colleagues :

Professor CANTACUZÈNE  
Dr. Carlos CHAGAS  
Dr. W. CHODZKO  
Surgeon-General CUMMING

Professor J. D. FITZGERALD  
Professor J. JADASSOHN  
Professor G. PITTALUGA  
Dr. A. STAMPAR

In view of the fact that it was difficult for Japanese scientists to come frequently to Geneva, they had suggested that one of the three following should be invited to attend each session of the Committee :

Dr. HATA  
Professor MIYAJIMA  
Professor NAGAYO

Finally, the Committee was to appoint two health experts for North and South America. The President and the Vice-President proposed for Latin America the name of Dr. José SCOSERIA, President of the Principal Council of Hygiene in Uruguay, and they hoped, before the end of the session, to be in a position to submit the name of the expert for North America.

*The Health Committee approved these appointments.*

#### 462. Status of the Members of the Committee.

Professor BORDET said that as a new member of the Committee he had some difficulty in understanding the exact distinction between the different categories of members of the Health Committee. He asked the President to give him some explanations.

The PRESIDENT replied that it seemed to him to be desirable to modify the system of distinctions which at present existed, and the more so as those distinctions had no practical importance. He proposed that the question should be referred to the Bureau, who would submit a report at a later date.

Professor Léon BERNARD approved this proposal. All the members actually had the same rights, but it was essential that the position should be properly regulated.

Sir George BUCHANAN wished to confirm Professor Léon Bernard's observations regarding the practical equality of all members of the Committee in the past. Official changes in the constitution of the Committee, however, might raise delicate questions, and the Bureau's advice in this matter should be given after full deliberation.

*The question was referred to the Bureau.*

#### 463. Constitution of the Bureau.

The PRESIDENT proposed that the Bureau should be increased by one additional Vice-President—that was to say that it should include, in addition to the permanent Vice-President, three Vice-Presidents elected for one year instead of two. Experience had shown that the Bureau was often obliged to meet in order to consider questions referred to it by the Committee. In view, also, of the great number of members of the Committee, many of whom came from Extra European countries, he thought the Bureau should be enlarged. He proposed that Dame Janet Campbell should be appointed Vice-President to represent on the Bureau the health interests of women and that the two other Vice-Presidents be Professor CANTACUZÈNE and Dr. HENG-LIU.

*These proposals were adopted.*

#### 464. Adoption of the Agenda (Annex 1) and Constitution of Commissions.

The PRESIDENT informed the Committee that he had received two letters from the Secretary-General. In the first (Annex 4 a) the Secretary-General communicated to the Health Committee a resolution of the Council on a proposal by the French Government concerning the establishment in Paris, under the auspices of the League of Nations, of an International Centre for Advanced Health Studies. The Council had accepted this proposal, and had requested the Health Committee to undertake a technical study of the scheme and submit the results. As the present session of the Council would end on about October 4th, the Committee might submit this report in time for the Council to take note of it during the present session.

In view of the importance of the proposal, the President suggested that it should be referred to a special Sub-Committee to be presided over by Professor Léon Bernard, and to include, in addition, Dame Janet Campbell, who would be assisted, if she so desired, by Mr. Heseltine, Professor Jules Bordet, Professor Fitzgerald and Professor Pittaluga. The President would himself take part in the discussions of that Sub-Committee.

Sir George BUCHANAN considered that the proposal of the French Government was very important since the proposed International Centre would be placed directly under the authority of the League of Nations. The information at present before the Committee was not very explicit and it was necessary to consider very carefully what should be the exact object of the proposed institution. It would be very desirable that the Sub-Committee should submit a report in which the question should be very thoroughly set out, and that that report should be sent in in good time so that the Committee could devote to its discussion all the attention necessary.

Dr. RAJCHMAN made a brief statement on the question.

The Council, which had had before it the proposal of the French Government, had drawn up a resolution from which it could be noted (1) that the Council had accepted the proposal, and that the creation of the International Centre had already been accepted in principle; (2) that the Health Committee had been invited to undertake a technical study of the scheme. At the same time, the competent sections of the Secretariat—namely, the Legal Section and the Health Section, had been requested to examine the question, and those sections had prepared a memorandum, which would be distributed to the members of the Sub-Committee.

Sir George BUCHANAN pointed out that though the Council had taken a decision in regard to the creation of the Centre, it had given little indication as to the principles on which its use should be based. Consequently he felt that the Sub-Committee should not only explain how the institute was to be set up, but what it was going to do.

The PRESIDENT informed the Committee that in a second letter (Annex 5 a) the Secretary-General had communicated another decision of the Council in regard to a proposal of the Spanish Government, which had asked the Council to convene a European Conference on Rural Hygiene. The Council had accepted this proposal, and had forwarded it to the Health Committee for technical study.

This question should also be examined without delay, and the President suggested that it should be referred to a special Sub-Committee presided over by Professor Pittaluga, which would include Dr. Carrière, Dr. Chodzko, Professor Fitzgerald, Dr. Hamel, Dr. Lutrario and the President himself.

Professor PITTALUGA would be glad to act as Chairman of this Sub-Committee. He felt that the present moment was particularly favourable for a study of the question of rural hygiene, in view of the extremely serious economic problems which at present pre-occupied public opinion.

The PRESIDENT stated that a letter from the Hungarian Government was also before the Committee. The Hungarian Government proposed the convening of a group of experts in Rural Hygiene at Budapest on the occasion of the inauguration in October, 1930, of a health centre and a new school for visiting nurses at the Public Health Institute of Budapest.

The Committee would certainly wish to study this question during the present session, and the President asked Dr. Chodzko to examine the question with the Bureau and subsequently to submit definite proposals.

The PRESIDENT pointed out that the Eleventh Assembly had decided to refer to the Health Committee a proposal by the Hungarian delegate to the Assembly in regard to the drawing up of an international convention securing reciprocity in the case of the sick. The President proposed that it should be studied by a small Sub-Committee over which M. Velghe would preside, and which would include Sir George Buchanan, M. Gas and Dr. Raynaud. The representative of the Hungarian Government would be at the disposal of this Sub-Committee.

The President also drew the Committee's attention to a resolution from the German Sickness Insurance Funds Association relating to a study of the price of radium. This resolution had been forwarded to the Committee by Dr. Hamel. The latter would perhaps undertake a preliminary study of the question as Chairman of a Sub-Committee, which would be composed of Sir George Buchanan, Dr. Jitta and M. Velghe.

As the terms of office of the Commissions had ceased with that of the members of the Committee, the latter would have to decide during the present session which of the former Commissions should be reconstituted, and what new Commissions should be set up. A decision could only be taken in regard to this matter when the programme of work had been determined. Two or three questions would, however, have to be examined by certain Commissions during the session, and the President submitted the following proposals :

1. The Commission for Quarantine in China should be reconstituted without delay. It might meet under the chairmanship of Dr. Lutrario and would be composed of Sir George Buchanan and Dr. Jitta, Dr. King, Dr. MacMullin, Dr. Raynaud, Dr. Tsurumi and M. Velghe.

2. The members of the Malaria Commission would meet to study, with the representative of Bulgaria, Professor Swellengrebel's report on the anti-malaria campaign in Bulgaria. They might also study the proposals which the Malaria Commission was submitting to the Committee.

3. The examination of the programme of the School of Hygiene at the Athens Centre, which had been begun at Dresden, should be continued under the chairmanship of Professor Léon Bernard with the help of Dr. Hamel, Dr. Kacprzak, Dr. Pallis, Professor Parisot and Dr. Norman White.

4. The Opium Commission might meet, under the chairmanship of Dr. Carrière, with the help of Dr. Chodzko, Dr. Hamel, Dr. King, Professor Ricardo Jorge, Dr. MacMullin, Dr. Tsurumi and M. Velghe.

The Committee should also take a decision with regard to the question of liaison with the International Red Cross Committee and the League of Red Cross Societies.

Dr. RAJCHMAN summarised the correspondence between the President of the Health Committee, the Vice-Chairmen of the International Red Cross Committee and the League of Red Cross Societies in May, 1930. (Annex 6). It had been proposed that a representative of the Red Cross organisations should be invited to submit an annual report on the health work of those organisations. That report, distributed in advance to the members of the Health Committee, would serve as a basis for discussion with the representative of the Red Cross Organisations.

*The Committee adopted this proposal.*

#### 465. General Procedure of the Health Committee.

The PRESIDENT pointed out that the Committee had before it a series of proposals by Sir George Buchanan on the general procedure of the Health Committee (CH. 897). The President proposed that the Committee should decide to place this question on the Agenda, but that it should be referred without discussion to the Bureau, which would submit a report at a future meeting of the Committee.

*The Committee adopted this proposal.*

Sir George BUCHANAN informed the Committee that on the invitation of the Medical Director he would, in due course, make a statement and proposals on the question of cancer.

The PRESIDENT noted that the Committee had adopted its Agenda. He added that during previous meetings members of the Committee had often wished to discuss, in addition to the detailed questions submitted to them, the general principles which should direct the Committee's activity, but lack of time had almost always prevented them from doing so. In order to obviate this disadvantage, the President proposed that the present session should begin with a general discussion, the main lines of which he wished himself to sketch. He therefore read a general statement which he had prepared (Annex 2), which summarised the past activity of the Health Organisation, and proposed certain general principles for its future activity.

This statement would serve as the basis for the general discussion.

## SECOND MEETING.

*Held on Tuesday, September 30th, 1930, at 10 a.m.*

*President:* Dr. Th. MADSEN.

### 466. Activity of the Health Organisation : Discussion of the President's Statement (Annex 2).

Sir George BUCHANAN thought that the Committee should be grateful to its President for giving it the opportunity of starting the session by a general discussion. Such a discussion was very desirable after the experience gained by nine years' work. It should relate both to the objects of the work and to the machinery by which it is carried out.

Several of the activities of the Organisation were now following settled lines and constituted permanent activities. This applied to fixing international standards, definitions and other agreements, except where there is other official provision for such standards or agreements being made; it applied to the interchanges and all which they implied in the direction of supplying information; and it applied to particular work which from time to time is decided upon by the Council as being in the interest of the League and remitted to the Health Organisation to carry out. This included, for example, the recent work in Greece, China and Latin America. There were also certain semi-permanent commissions like that for malaria, and work which resulted from international agreements such as that on Opium.

Besides these relatively stable activities there were a large number of current questions which were taken up by *ad hoc* commissions or expert groups—for example, the fumigation of ships or BCG vaccine. There were many such questions; they were topical, taken up as they arose and disposed of. Fresh suggestions were constantly being made and some new ones had been presented to the present Assembly. It was not possible or even desirable to accept all these suggestions. The Committee should deal with them on the principle of making a sound selection of the subjects which are most necessary from international standpoint and are most appropriate to the particular machinery which the Health Organisation represents. Another criterion was that the work, if undertaken, should be of the highest standard.

It did not seem to him that the Committee need be troubled if this selection was admittedly opportunist and did not represent any logical system. The proposals of the President would introduce a certain classification, as it seemed that new work which he contemplated was to be divided into something like twenty new and comprehensive groups.

The President's memorandum suggested that the principal object of creating these separate groups of subjects was to make comparative studies and to obtain a statement of modern practice of preventive medicine. He hoped that this did not mean the formulation of international doctrines and dogmas. Each country should work out its own methods, taking into account its national genius and the local conditions. The Health Committee could hardly take upon itself the responsibility of prescribing the best method of fighting against a particular disease. Taking the anti-tuberculosis campaign as an example, Great Britain had developed a very complete organisation, including the compulsory notification of the disease, the appointment of special "tuberculosis officers", the establishment of a system of sanatoria and dispensaries and home-visiting, throughout the country. There might be a temptation to treat that complex organisation for the purpose of comparison with the systems existing in other countries, as if it were the sole, or the chief, agency by which tuberculosis is combated. But before the introduction of the present system in Great Britain a considerable decrease in the disease had already set in, and in view of the changed conditions of life of the population it was extremely difficult to determine to what extent the advance which still continued could be attributed to the present system. Attempts to establish what might be called an "international dictionary" of modern practice in the matter of preventive medicine did not seem promising.

The President had also contemplated the possibility of calling together a Commission composed of the medical directors of the various Colonial ministries. That proposal would affect numerous interests, and required to be studied thoroughly.

With regard to the improvements to be made in the methods of which nine years' experience had shown the advantages and disadvantages, it would be very useful if the members of the Health Committee and the national organisations could receive, between the sessions, regular information on the work in progress. In addition to the detailed and complete information furnished to the Committee at each session in the report of the Medical Director, it was desirable, if the national organisations were to be in a position to give all the necessary help to the various commissions and investigations, that they should be informed as quickly and as completely as possible of the exact terms of reference and composition of those expert bodies. The members of the Committee would thus have some knowledge, in advance, of the questions dealt with in the various files handed to them at the beginning of each session.

Sir George Buchanan was strongly in favour of following the method of work suggested by the President and entrusting the drawing up of reports on the whole of a question to small committees composed of the rapporteurs and three or four experts who had the requisite special knowledge. Rapporteurs would be requested to make a choice among the proposed studies and enquiries and to indicate to the Health Committee on what basis and in accordance with what method it would be desirable to proceed in regard to those subjects which they recommended. That system would have the additional advantage that the discussions in the Health Committee would no longer be based exclusively on the various chapters in the report of the Medical Director. The rapporteur would have to expound and support his proposals, and this would promote free comment or criticism.

Dr. TSURUMI considered that the collaboration in health matters between various Governments and the Health Organisation of the League of Nations showed how much its activity was appreciated. The work of the Permanent Commission on Standardisation in particular was very remarkable both from the scientific and administrative points of view.

The President had shown in his statement that the study of the Anti-Tuberculosis Campaign was perhaps more urgent than the study of other questions. It was on Dr. Tsurumi's proposal that an enquiry into this matter had been carried out and certain results had been obtained, in regard, for example, to the titration of tuberculine. There was still considerable work to be done, however, before final conclusions could be reached.

With regard to leprosy, knowledge of preventive measures was much less developed than was the case with other infectious diseases. Enquiry should be encouraged and the close co-operation of the Governments concerned should be obtained.

The enquiry on infantile mortality had already given important results, thanks to the work of the experts, among them the Vice-President of the Committee, Dame Janet Campbell. The study of the appropriate measures for combating scarlet fever and diphtheria should be continued; the international enquiry set up by the Conference of Experts at Paris in July 1929 was, however, still in progress.

The importance and usefulness of the schools of hygiene were to-day definitely recognised, and the conferences at Paris and Dresden of directors of those schools had shown what path should be followed. Dr. Tsurumi reserved his right to submit later suggestions in regard to the general lines of the activity of the International School of Advanced Health Studies, the establishment of which at Paris had been proposed by the French Government. He would also submit suggestions in regard to the problem of nutrition, and in particular to the question of rice in the Far East.

Dr. JITTA, wondered whether the Health Organisation was not over-burdening itself with too heavy a task, and whether it had been possible to deal thoroughly with the various subjects to be studied. It was at present dealing with a very great number of problems. The Council continued to entrust it with new ones and certain countries asked for its co-operation.

With reference to the suggestion concerning the study of heart diseases contained in the President's statement, Dr. Jitta did not think that those diseases could be considered as social diseases. With regard to rheumatism, it seemed to him that the Health Organisation should be content to co-operate with the private associations and societies which were already doing useful work in that field.

On the other hand, Dr. Jitta was surprised that no reference had been made to the study on X-rays.

In conclusion, he entirely agreed with Sir George Buchanan in regard to the President's proposals on the work of the rapporteurs.

Dr. LUTRARIO congratulated the President on the clearness with which he had outlined the methods of work to be adopted. He entirely approved the suggestions concerning the rapporteurs, whose reports the Committee would have to examine thoroughly before adopting them. Once these reports were adopted, however, the question of their publication and circulation would arise. The monthly report, which was reserved for epidemiological information, might refer to the work of the Health Committee.

Dr. Lutrario thanked the President for his reference to the work of the Malaria Commission. That Commission had been able to define a doctrine in regard to malariology which had definitely put an end to a whole tradition of errors.

Another important question was cancer. Dr. Lutrario felt that the importance of the part played by the physical constitution should be recognised. At the Bolzano Congress proof had been given of the efficacy of the biological treatment of cancer.

Dr. CHODZKO wished to refer to a point in Dr. Jitta's statement. The President's statement emphasized a new aspect—the social aspect of the diseases which had to be combated.

If the Committee followed Dr. Jitta's advice, however, with regard to heart diseases and rheumatism the same arguments might be advanced for any other disease, and the result might be to put an end once and for all to the discussions of the Health Committee in view of the fact that there were already organisations which dealt specially with most important diseases—tuberculosis, venereal disease, and so on.

Dr. Chodzko did not agree with Dr. Jitta. He considered that if a disease necessitated the adoption of social measures, that disease might be considered as social. Why could not rheumatism be included in that category?

Dr. Jitta was quite right in wishing the Health Committee to avoid the discussion of pathological characteristics. At the same time, Dr. Chodzko wished to give an example. With regard to tuberculosis, he had asked that special attention should be paid to the social

aspect of the campaign against it. That recommendation had not found favour, and in the past Dr. Chodzko had been glad that this was so, since it was thus that a new conception had been reached in this field. A communication from Professor Besançon, to the Paris Academy of Medicine, which had given rise to a discussion in which Professor Léon Bernard had taken part, had shown the increasing importance of surgical intervention in the treatment of tuberculosis.

The problems relating to the activity of sickness insurance funds which had required solution in Poland had shown him the necessity for first contemplating a campaign against tuberculosis in the large towns. They had also shown that this disease was a disease affecting populated areas which could no longer be combated by merely putting the patients into institutions for it could now be treated with almost certain success and every bed in a sanatorium represented considerable expense. Professor Besançon's words might be recalled : " to leave bad tuberculosis cases without attention in the hospitals would be a crime in these days." The President, in his statement, had rightly emphasised the necessity for giving the campaign a new character.

Dr. Chodzko was especially interested in the question of schools of hygiene. The Committee should be grateful to the Health Section and to the Medical Director for increasing the number of conferences of directors of those schools. On the other hand, it seemed that the programme of the Commission on the teaching of hygiene should be developed in the direction of medical teaching in general.

With regard to the health centres, they were called upon to render considerable service, particularly in rural hygiene.

Dr. Chodzko had not completely understood the meaning of the following paragraph of the President's statement :

" Finally, the whole question of the rôle of local authorities in the administration of medical assistance will undoubtedly force itself on the Committee's attention."

He also was in favour of the procedure contemplated, which consisted in the setting up of small reporting committees. That seemed to be the best method for enabling the Committee to profit by the work of experts.

Finally, Dr. Chodzko had great pleasure in referring to the passage of the President's statement in regard to preventive medicine in connection with the study of health insurance. It was very difficult to obtain recognition of the necessity for introducing sums to be used for preventive medicine into the budget of health insurance funds. Dr. Chodzko had had the greatest difficulty in obtaining the insertion of a figure representing a proportion of 4%.

In conclusion, he wished to congratulate the President on his clear statement. He hoped that in future the work of the Health Committee would be organised in accordance with the ideas contained in it.

Professor FITZGERALD also congratulated the President. With reference to the passage in his statement relating to rheumatism and heart disease he noted that there was *quasi* unanimity that acute rheumatic fever was one of the principal causes of heart disease. Special clinics had been set up in Canada, and Professor Fitzgerald wished to give a sketch of the organisation at Toronto.

In that town of 600,000 inhabitants, there were child welfare centres whose object was to watch over children during the first two years of their life. In those centres children were examined with the co-operation of the children's hospitals and visiting-nurses, and when a lesion of the heart was diagnosed treatment was prescribed and the child was submitted to regular supervision. Thanks to that, it was often cured before it reached the school age. If the cure was not complete, supervision was continued at the school health-centre or by the family doctor.

Dr. RAJCHMAN wished to inform the Committee of the manner in which the Health Section contemplated putting into operation certain of the proposals contained in the President's memorandum.

Dr. Jitta had rightly observed that the two first Health Committees had perhaps only studied the epidemiology and pathological characteristics of diseases. The work had then only been beginning. During the past four years, however, the Committee had undertaken the study of medical problems from the social point of view. In particular, it had taken an important decision in setting up the joint Commission for the study of health insurance and public health administration.

The work of that Commission had perhaps not always been followed with all the attention it deserved. The time had now come to ask to what extent the work should be continued and what part the Health Committee should take in it.

There were two reasons why Dr. Rajchman attached particular importance to this question. In the first place, the members of the Committee had raised the question of health insurance on every possible occasion and during discussions of the most varied character. In the second place, it must be recognised that the work of the joint Commission had made very little progress. That was partly due to the fact that it was very difficult to define modern practice in preventive medicine. Meetings of medical advisers had been held, and the latter had taken part in missions and investigated the problems where they arose, but they had confined themselves, after their first contact to putting forward general considerations.

Dr. Chodzko had pointed out that he had had great difficulty in obtaining the inclusion in the budgets of health insurance funds of a proportion of 4% for preventive measures. Interesting experiments had been made in Germany, however, and it could be said that in



general the movement had made considerable progress. The President was right in saying that the time had come for the Health Committee to give effective help by defining clearly in what preventive medicine consisted.

Sir George Buchanan had warned the Committee against the danger of laying down international medical doctrines. The Committee had always shared that apprehension, and that attitude had always proved very salutary. At the same time, a clear reply to the question of what could or could not be done in that direction could be found in the results obtained. The two questions of malaria and infantile mortality could be taken as an example.

With regard to malaria, the work had started with a series of partial enquiries without any definite connection. Tours had then been undertaken for the purpose of enabling the members to realise the difficulties and practice of each country. Sir George Buchanan had rightly said that each nation should solve the problems with which it was faced in conformity with its national genius; that was particularly true in the case of malaria. After four years of investigation, however, the Committee had tried, and had succeeded, in drawing from its work certain general conclusions which clearly summarised the opinions in regard to malariology which were common to the various schools of thought.

The same was the case in regard to infantile mortality. Certain lessons had already been learned from the various enquiries, and in particular it had been noted that several questions required immediate and careful examination.

It was easy to exaggerate the importance of a subject. If a list were drawn up of all the enquiries which the Health Organisation had been requested by the Council, by various nations, and by others to undertake, the Committee would be terrified by its dimensions, and if that list were compared with the programme set out by the President, it would be seen that the latter would be the easier to carry out.

Dr. Rajchman would leave it to Professor Léon Bernard to speak of the position of the work in regard to tuberculosis. He desired, however, to emphasise the important results obtained in regard to venereal disease. In the first place, the question of the serological diagnosis of syphilis had been cleared up, and it had been possible to reach definite conclusions which would, of course, be subject to revision in the future. In the second place, the question of treatment, which, in this case, was the only preventive method, had also been investigated. A conclusion was about to be drawn from the documentation furnished by the public clinics of Europe and America.

Briefly, the Health Committee had defined the methods which should be recommended for serological diagnosis and had indicated two or three excellent methods of treatment. Though, therefore, the Committee had not drawn up an actual international doctrine, which would have been very dangerous, it had nevertheless furnished information which was very valuable to those countries less fortunate than Great Britain and the Netherlands which did not yet possess a well-established organisation for the anti-venereal campaign.

The Health Committee was an advisory body of the Council and in that capacity was called upon to provide advisory opinions to an ever-increasing extent. Those opinions could not reflect personal views, but had to be based on the conclusions reached after long discussion.

Dr. Rajchman would refrain for the moment from dealing with certain questions of procedure. He would ask to be allowed to refer to them later when the general trend of the discussions became clear, and when the various items were discussed one by one.

Dr. HAMEL thought that as he had been a member of the Health Committee for only three years his ideas in regard to the results of the Committee's work would perhaps interest his colleagues. Dr. Hamel had dealt with the health problems of a federal state consisting of seventeen countries and he was well aware of the complexity of those problems and of the time necessary for solving them. When he became a member of the Health Committee, he had not imagined that that Committee would have been able each year to register such remarkable results.

Among those results must be mentioned, in the first place, the organisation of the Service of Epidemiological Intelligence, which had rendered very great service throughout the whole world. It was not only confined to compiling statistical documentation, but it had also endeavoured, as certain epidemics such as poliomyelitis and psittacosis developed, to furnish the greatest possible amount of information in regard to them.

Another very remarkable manifestation of the activity of the Health Organisation was the interchange system. That was of very great importance to the countries visited because it compelled the officials of sanitary administrations to provide up-to-date information on their methods. On the other hand, those officials who took part in study tours were able, on their return to their own countries, to render more valuable services. It might be said that the interchanges were the best "visiting cards" which the Health Organisation of the League of Nations could leave in the various countries. Dr. Hamel also emphasised the importance of the results obtained in regard to standardisation.

In general, the Health Organisation had won the esteem of the circles concerned throughout the world by drawing attention to the importance of preventive and social medicine, which had latterly been somewhat neglected. The officials who had endeavoured to introduce preventive methods of social medicine into their countries were grateful to the Health Organisation for the help thus given to them.

The schools of hygiene were of special importance in countries in which there were no supplementary training courses for doctors. In countries where such courses were to be found the schools of hygiene stimulated their activity.

Some of the questions on which the Health Organisation had been at work had given more satisfactory results than others. With regard to cancer, the change since the war in the proportion of the older in relation to the younger elements of the population in most countries made this problem particularly important. The results obtained in the study of the diagnosis and treatment of syphilis were very encouraging. With regard to tuberculosis, the general decrease which had been noted should not retard the campaign against it.

The number of medical and health problems awaiting solution was very great, and the Committee would have to make a selection from them and give preference to problems of particularly wide scope, or those whose investigation offered the certainty of practical results.

Moderation was necessary, however, in regard to international obligations. On the other hand, there could be no question of endeavouring to establish a kind of scientific monopoly, or of wishing to impose obligations on the circles concerned.

Finally, Dr. Hamel was entirely in agreement with Sir George Buchanan with regard to the system of rapporteurs contemplated in the President's statement.

Professor BORDET was not very familiar with the aims and methods of the Health Committee. He believed, however, that it had especially in view the development of sanitary organisations in the various countries, the campaign against epidemics and the teaching of hygiene.

The Committee had therefore been led to draw up a list of diseases in which international intervention was legitimate, and to put forward, on the basis of the documentation collected, a plan of action for combating them. That was particularly the case in regard to malaria and syphilis.

With regard to tuberculosis, the Committee could not claim to give any lessons in that matter to a country like Great Britain. It should be pointed out, moreover, that though certain Governments might be able to devote very large sums to the anti-tuberculosis campaign, as in the case of the Belgian Government, which had voted a credit of one hundred million Belgian francs, this was not the case in all countries.

Professor Bordet did not see how heart diseases could be the subject of an international investigation. Their etiology was still unknown to scientists, who were as yet unable to suggest any specific treatment. The same difficulty arose with regard to scarlet fever.

It was entirely different, however, with whooping cough. That was a social disease, and it was serious owing to the fact that it was extremely widespread. While, in Belgium for example, medical men considered that the use of vaccine gave very appreciable results, particularly by shortening the duration of the disease, in other countries, on the contrary, their efficacy was completely denied.

These divergencies of opinion doubtless arose from the fact that vaccines were not prepared everywhere in the same way.

Professor Bordet would therefore be glad if the Health Committee would recommend that certain laboratories should be requested to supply a vaccine prepared according to a well-determined method, which would be studied in all countries. If the efficacy of that vaccine was proved it would be adopted; if such were not the case it would not be used.

That seemed to be a direction in which the action of the Health Organisation of the League of Nations might be particularly useful.

The efficacy of sera against poliomyelitis might also be the subject of a similar international enquiry.

Professor Léon BERNARD was not in favour of prolonging these general discussions. At the same time, it seemed to him that a certain number of ideas had come to light during the present discussion.

He had not clearly understood whether Sir George Buchanan was or was not in favour of comparing the various national methods. With all due prudence it seemed, however, that that comparison should be the basis of the Committee's work. Thus, to give his personal opinion, Professor Léon Bernard would state that the visit he had once made to the British Ministry of Health had been most instructive, and it could be said that the interchange system was one of the most valuable activities of the Health Organisation.

The general discussion, however, had also been concerned with another idea. Reference had been made to social diseases and social medicine. Professor Léon Bernard thought it impossible to obtain an exact definition of those terms. A few years ago tuberculosis, syphilis and one or two other diseases only were considered as social diseases. At present, however, almost all the other diseases could be placed in that category, and there were very few reasons which could be brought forward against doing so.

What diseases should be called social? Those diseases which attacked society, those which involved social factors, or those which required social measures? If the last definition were adopted, as Professor Léon Bernard had pointed out in one of his communications, it would seem that it could be applied to all diseases, including coryza.

Indeed, that progress had been made could be seen from the fact that diseases were now considered from the social point of view. The social character of a disease depended on the knowledge of that disease and the progress made in its treatment, calling for the adoption of collective measures to combat it.

A distinction should be drawn, moreover, between social medicine and preventive medicine. In the present case the meaning was clear; there were diseases, however, such as syphilis, where prevention depended on treatment.

Reference had been made to publicity in connection with the work of the Health Committee. That question had often been considered and methods had been contemplated for bringing its work to the notice of the medical world, which was, to a great extent, ignorant of it. The Medical Director would doubtless object that the Secretariat was already overburdened, but the question should nevertheless be dealt with.

With regard to whooping cough, Professor Léon Bernard was entirely in agreement with Professor Bordet. It was regrettable to find that the opinions of doctors were so divergent in this matter, and that that was owing to ignorance. They were not entirely to blame for that ignorance, which arose from the absence of homogeneity in the preparation of vaccines. It would be of the greatest importance to standardise them officially. Professor Léon Bernard had arranged, so far as France was concerned, for specialists to follow courses of study at the Copenhagen Institute, and the results obtained had been excellent.

With regard to tuberculosis, Professor Léon Bernard explained, in reply to Dr. Chodzko the origin and bearing of the discussion which followed the communication of Dr. Besançon at the Academy of Medicine at Paris. There was no doubt that the progress made in regard to tuberculosis encouraged a modification of methods of combating that disease, with a view to being equipped for carrying out methods now recognised. Professor Léon Bernard wished to thank Dr. Chodzko for his compliments in connection with the Conferences of the Schools of Hygiene, and he desired to associate Professor Prausnitz with those compliments. The conferences had shown how important it was to take up the questions in detail with specialists comparing their experiences. It had also been shown that teaching on hygiene and medical teaching were linked together, as the President had pointed out in his statement.

Although it was somewhat unseemly to compliment oneself, the Committee should note with satisfaction the praise addressed to it by Dr. Hamel, who was a relatively recent member. This praise was particularly valuable.

Every organisation should endeavour to perfect itself, and the President's suggestion that in place of large Commissions small Committees of competent specialists should be set up was excellent. There was no discourtesy in pointing out that the work of the Commission on the Teaching of Hygiene had made very little progress until the meeting of directors of schools of hygiene had made it possible to draw up definite programmes.

Professor Léon Bernard was sure that the work which the new Health Committee would undertake would be as fruitful as that of its predecessors and that the greatest cordiality would continue to prevail. The Committee had never desired to interfere in the internal sanitary policy of the various countries, and that attitude was in accordance with the spirit of the League of Nations.

Professor Ricardo JORGE approved the proposals contained in the President's statement, as well as the observations made. A brilliant and useful discussion had shown the direction which the activity of the Health Committee should take. So far as that activity was concerned, Professor Ricardo Jorge believed that the paths already followed were still the best. He saw no reasons for an important change of direction.

He agreed with Sir George Buchanan and with Dr. Jitta with regard to the limitation of the programme of enquiries to be carried out.

On the other hand, with regard to the distinction between social and other diseases, he thought, with Professor Léon Bernard, that that distinction was not very sound. He would go even further; he did not think it necessary to separate preventive medicine and curative medicine. Why, moreover, should the Committee use terms which were so difficult to explain? Why could it not be content to be what it was—a Health Committee, without further qualification?

With regard to the choice of subjects to which the Committee should give preference, Professor Ricardo Jorge thought that these should include the study of diseases which were public scourges and those which necessitated collective effort on the part of health administrations.

Sir George BUCHANAN had been impressed by the many points on which the speakers had agreed concerning the objects of the Committee's activity and the methods to be employed. The divergencies were rather in respect of emphasis. Some members paid great attention to the logical definition of the work of the Committee, others were more concerned with the practical side of that work. All, however, had emphasised the necessity of making a careful selection among the problems proposed to the Committee, and the Medical Director had himself put forward that view. He thought that the Committee should continue to follow the path which it had taken up to the present, perfecting its methods where necessary. If international doctrines were to be derived from this work, they would come to light little by little as the work advanced.

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THIRD MEETING.

*Held on Wednesday, October 1st, 1930, at 10 a.m.*

*President: Dr. Th. MADSEN.*

**467. Activity of the Health Organisation (Continuation) : Constitution of Commissions.**

The PRESIDENT was glad to note that the discussion at the previous meeting had shown that the members of the Committee were almost unanimous in regard to its programme of work and the direction suggested for its activity. He was also glad to note that his statement as a whole had been approved.

During the discussion replies had been given, and in particular by the observations of the Medical Director to some of the questions raised. Sir George Buchanan and Professor Hamel had warned the Committee against the danger of wishing to impose on national medical administrations the obligation to take particular measures. The Medical Director had replied that the Health Committee had not, and never would, have any such intention. The President took the opportunity to affirm this once again.

On the other hand, it was obvious that if use was to be made of the important documentation collected by the Health Section it was necessary to formulate the conclusions to be drawn by judicious analysis. International co-operation was indispensable if this work was to be well done. It was essential to proceed with prudence and to base every consideration on statistical elements duly submitted to criticism.

The Health Committee had heard with great satisfaction Dr. Hamel's words in praise of the service of epidemiological intelligence. Dr. Hamel presided over an institution which had already at its disposal a very well-developed system of information on epidemics. His appreciation of the help he had obtained from the service of epidemiological intelligence was authority for believing that this help should, with very good reason, be appreciated by the small and less well-equipped countries. It should be pointed out that this service was in the hands of the Health Section, and that all honour was due to it and to the Medical Director.

The Bureau of the Committee had endeavoured to draw conclusions from the programme outlined—that was to say, to determine what commissions and work should be organised. Subject to the reservation that there had not been time to consult all the persons concerned, and to discuss the composition of the Commissions with the Chairmen, the President submitted the following proposals to the Committee :

1. *Permanent Commission on the Standardisation of Sera, Serological Reactions and Biological Products.* — The President proposed that its present composition should be maintained and asked Professor Bordet to be good enough to preside over it. It would therefore consist of Dr. McCoy, Professor Dale, Professor Kolle, Dr. Madsen and Professor Louis Martin.

2. *Opium Commission.* — Dr. Carrière would be good enough to continue to preside over this Commission. It would be composed of the following members : Dr. Chodzko, Surgeon-General Cumming, Dr. Hamel, Dr. Heng-Liu, Professor Ricardo Jorge, Dr. Tsurumi and M. Velghe. Professor Knaff-Lenz would take part in the work of the Commission as an expert.

3. *Malaria Commission.* — Dr. Lutrario would submit proposals with regard to this Commission, of which he was Chairman.

Dr. LUTRARIO thought that this question should be examined with the greatest care. The number of members of the Malaria Commission had increased considerably, and to appoint them was not an easy task.

Dr. Lutrario wished, however, to ask the Health Committee to be good enough to appoint as Chairman of this Commission Professor Vittorio Ascoli, Director of the School of Malariology at Rome and member of the Health Committee and of the Malaria Commission. Dr. Lutrario had agreed to act as Chairman of the latter for seven years, because at the beginning its character was rather administrative, but its activity was becoming more and more strictly scientific, and Professor Ascoli seemed to be particularly well qualified to act as Chairman. He was at present ill, but would soon be able to continue his work for the Committee.

The PRESIDENT thought that the Committee should bow before Dr. Lutrario's desire, while thanking him and congratulating him on the remarkable manner in which he had directed the work of the Malaria Commission for seven years. He would be good enough to act as Chairman until Professor Ascoli's return.

With regard to the other members of the Commission, their appointment would be made in agreement with Professor Ascoli and Dr. Lutrario. The President asked Professor Jorge, however, to be a member of the Commission.

4. *Leprosy Commission.* — Professor Chagas was at present its Chairman, and it would be impossible to appoint its members without consulting him. That would be done by correspondence.

5. With regard to *scarlet fever and diphtheria*, a small group of experts had carried out enquiries, the results of which would be the object of a report. The latter would have to be examined before a special commission was constituted. The Rapporteurs to the Committee would be Professor Debré for scarlet fever and Professor Gorter for diphtheria.

Professor Léon BERNARD proposed that this Commission should also deal with whooping cough.

The PRESIDENT replied that he would refer to that question later. He pointed out that a programme of work on scarlet fever and diphtheria had already been fixed, and it was expected that it would be completed next year.

Sir George BUCHANAN understood that the question of scarlet fever and diphtheria was intended to be studied from the purely technical aspect and solely from the point of view of the laboratory. This work, however, was necessarily related to administrative problems, and it was important to health administrations dealing with the treatment of infectious diseases to be kept fully informed about them. He hoped that the President would agree to act as Rapporteur to the Committee on this question.

The PRESIDENT replied that the object of the investigations were at present purely technical. It was necessary to compare the somewhat different methods of sero-therapy employed in the various countries of the world, and no administrative conclusion would be drawn in the report.

Sir George BUCHANAN emphasised that in England experiments in regard to the use of vaccines and sera had to be conducted under special conditions imposed by legislation and accepted practice.

The PRESIDENT pointed out that Sir George Buchanan's remarks were dictated by difficulties which were peculiar to his country and existed nowhere else.

With regard to Sir George Buchanan's request that the President should act as Rapporteur, he would point out that he would be presiding over the next session, when Professor Debré and Professor Gorter would submit their reports, and the necessary liaison would thus be assured.

6. Professor Bordet had emphasised the importance of the question of *whooping cough* and the President was in complete agreement with him. He would ask Professor Bordet to be good enough to make an investigation into this subject and to get into touch with the clinics and dispensaries at which it would be possible to organise research in regard to vaccines, etc.

Professor BORDET accepted this mission, and observed that it was important to obtain the collaboration of clinicians. The latter did not need to be very numerous. One or two from each of the principal countries would suffice.

Professor Léon BERNARD informed the Committee that he would put his laboratory, which was particularly well equipped from the point of view of whooping cough, at the disposal of Professor Bordet.

The PRESIDENT invited Professor Bordet to discuss the matter with the Secretariat.

7. *The Commission on the Fumigation of Ships* would be maintained as it stood that was to say: Chairman, Surgeon-General Cumming; members, Sir George Buchanan, General Graham, Dr. Jitta, Professor Nocht, M. Velghe, Dr. Monier Williams, and Dr. Dreyer; expert, Dr. Stock.

Professor Léon BERNARD asked whether there was a French member on the Commission. He thought it very desirable that his country should profit from the studies undertaken.

Dr. RAJCHMAN pointed out that when the Commission was instituted, the Health Committee had hesitated between two solutions—to appoint a great number of members who would bring to the Commission the experience of the various countries, or simply to set up a Commission with a somewhat limited membership which could undertake study tours, particularly to the United States. The second solution had been adopted, and it was therefore impossible to have representatives of all the countries.

8. The PRESIDENT pointed out that the question of *smallpox* had been studied in such a fruitful manner under Professor Jorge that appreciable results had already been obtained, such as the standardisation of the vaccinal lymph and useful information on the epidemiology of encephalitis. He asked Professor Jorge to act as Rapporteur to the Committee and to make a statement to the latter on the whole question.

9. The President would return later to the question of *cancer*.

10. With regard to *maternal welfare and hygiene of infants and children of pre-school age*, Dame Janet Campbell would preside over a reporting committee composed of Professor Debré, Professor Gorter and Professor Rott, together with an obstetrician who would be selected by the President of the Committee with the help of the Bureau.

11. With regard to the *hygiene of the child of school age and of the adolescent*, a programme of studies would be prepared by the Medical Director in collaboration with Professor Tandler, of Vienna.

12. With regard to *tuberculosis*, Professor Léon Bernard would preside over a reporting committee composed of Dr. Hamel, Professor McNalty and Professor Soper.

13. With regard to *venereal disease*, Professor Jadassohn would be asked to preside over a reporting committee, the members of which he would appoint on his return to Europe, in agreement with the Bureau.

14. With regard to *cancer, rheumatic fever and heart diseases*, reporting committees would be presided over by Sir George Buchanan, who would draw up, in collaboration with the Bureau, the list of his collaborators.

In view of the discussion at the previous meeting, the President proposed to alter his statement, and to omit the term "social" which qualified the diseases mentioned that was to say, cancer, rheumatic fever and heart diseases.

Dr. CARRIÈRE wished to refer to the group comprising cancer, rheumatic fever and heart diseases. He did not think it rational to include heart diseases. Professor Bordet had correctly pointed out that the knowledge of these diseases had not advanced very far. It would seem prudent to leave them in decent obscurity and not to mention them expressly, though this would leave the Committee free to take them up later as subjects of study.

Professor LÉON BERNARD understood Dr. Carrière's scruples but thought it necessary to recall the origin of the question.

In certain countries such as Canada, as Dr. Fitzgerald had explained, social measures had been adopted to carry on the campaign against heart diseases. Similar measures had also been taken in the United States. Institutions were available because the decrease in tuberculosis enabled them to be used for the treatment of heart diseases.

Professor Léon Bernard thought that if the Health Committee decided to study heart diseases it would be only, as in the case of rheumatic fever, in order to determine the measures to be taken and not from the pathological point of view. Consequently he proposed that these diseases should be enumerated, and that it should be specified that their study was undertaken "from the social point of view."

Dr. JITTA, who agreed with Professor Léon Bernard, hesitated to return to a point which had been discussed at length during the previous meeting. The committees presided over by Sir George Buchanan could study the question and take a decision.

Dr. RAJCHMAN supported Dr. Jitta. The Health Committee would adopt the decision taken by Sir George Buchanan and his collaborators.

Sir George BUCHANAN said that he would be glad to discuss the question with the Bureau.

The PRESIDENT pursued :

15. In regard to *health centres* Dr. Chodzko would preside over a commission, and would submit during the session and after consultation with the Bureau a proposal with regard to the appointment of the members, who would meet in October at Budapest.

16. With regard to the *rôle of public authorities in the administration of medical assistance*, this enquiry would be entrusted to M. Velghe, who would draw up a programme and would propose a list of collaborators after consultation with the Bureau.

17. *The Joint Commission for the study of health insurance* would be maintained as it was : Chairman, Sir George Newman; *members appointed by the League of Nations*, Dr. Hamel, Dr. Bellencontre, Dr. Foramitti, Professor Katashima and Dr. Kuhn. *Members appointed by the International Labour Office* : Dr. Grieser, Dr. Jauniaux, M. Olivier, M. Osowski, Mr. Potts and Dr. Winter.

18. With regard to the *teaching of medicine*, the President, with the collaboration of the Medical Director, would consult experts on the drawing up of a programme of study and the submission of a report to the next session of the Health Committee on the basis of the preliminary studies.

19. Dr. Fitzgerald would be asked to act as Chairman for the *conferences of directors of schools of hygiene*. As he usually resided in Canada, Professor Léon Bernard would act as Chairman in his absence.

20. The Medical Director wished to submit observations in regard to the *Commission of Directors of the various Colonial Health Ministries*.

Dr. RAJCHMAN informed the Committee that this question had been discussed by the Bureau. It was of real importance, and should be dealt with from the point of view of procedure with special care.

It had been proposed that the Medical Directors of the various Colonial Ministries should meet under the Chairmanship of Dr. Madsen. They would consider the best methods to adopt with a view to the organisation of regular meetings, and would submit proposals.

Sir George BUCHANAN wished to repeat the observations he had made at the previous meeting. He thought that if, as the Medical Director had stated, there really were special reasons for studying separately the hygiene of every territory in the world which was described as a colony by means of a commission composed of the medical directors of the various Colonial

Ministries, the question should obviously be examined. At the same time, Sir George Buchanan did not really understand its importance, and so far as Great Britain was concerned it was far from certain that the administration concerned would approve the proposal without fuller knowledge.

If it was only a question of asking the Colonial Ministries whether or not they approved of the principle of setting up the Commission he would not object.

Dr. RAJCHMAN said that the Health Committee should go a step further in this direction. He considered that there was no doubt that the Medical Directors would be in favour of the meetings. That assertion could be based on the example of the past. Before the Second International Conference on Sleeping-Sickness all the administrations stated that they were in favour of it.

It was now proposed to hold a meeting of the persons concerned for the discussion of the best means of establishing the desired liaison with them and enabling them to benefit from the facilities which the Health Organisation could offer.

It should be remembered that the Council had entrusted to the Health Committee, among other tasks, the very special duty of protecting the health of native populations.

Professor BORDET agreed with Dr. Rajchman. He had presided over a council of officials of colonial health services in Belgium, and considered it of the greatest importance a delegate of these services should meet with the representatives of other colonial administrations.

Sir George BUCHANAN did not wish to repeat what he had already said but was compelled to state that he was not convinced by Professor Bordet's observation. Comparisons of the various colonial health methods were at present often made at the Office international d'Hygiène publique, where the colonial administrations were officially represented. The discussions often proved very interesting and useful. Whether that organisation was sufficient or not for the purpose was a question to which the various colonial administrations would wish to consider, along with other information about the present proposal. The approach should be to the Governments concerned.

Dr. JITTA pointed out that the Netherlands had important colonial interests. He agreed with Sir George Buchanan and did not consider that the proposed meetings were very desirable. The problems dealt with by the health administrations in the Far East differed greatly from those with which the administrations in Africa were faced. In the Far East, liaison organisations already existed. It would perhaps be superfluous to bring together elements which were far too disparate.

Professor JORGE, after pointing out that Portugal had also extensive colonies, said that he was not sufficiently well informed to be able to approve the proposal. In principle, he agreed with Sir George Buchanan and Dr. Jitta.

Dr. RAJCHMAN regretted having to intervene in the discussion but thought that additional explanations were necessary.

The Advisory Council at Singapore had a definite object. The object of the proposal under consideration was to place all the facilities of the Health Organisation at the disposal of the medical directors of the colonial ministries. Those concerned should themselves say whether or not they desired it, and Dr. Rajchman did not see why the present moment was ill-chosen for raising the question.

The proposal submitted to the Committee for examination should only result in the consultation of the medical directors. The latter, before agreeing to the meeting, would doubtless discuss it with their respective Governments and would reply in the affirmative or the negative.

Sir George BUCHANAN replied that the Health Committee had already too much work to do, and it would seem superfluous to look for additional tasks which could not be defined. It would be time to examine the question when the Health Organisation had before it a specific proposal for its help in regard to certain colonies.

Dr. RAJCHMAN thought it necessary to quote the texts.

The Council adopted in 1928 the report of the Second International Conference on sleeping sickness, at which all the Governments of the countries possessing colonies were represented with the exception of the Netherlands. Sir George Buchanan himself had been a member of the British delegation. Dr. Rajchman read the resolution taken by the Council. That resolution had in time been brought to the notice of the colonial administrations.

On the other hand, at the meeting of the Committee of the Office international in May, 1939, Dr. Lasnet raised a definite question in regard to this resolution and asked to what extent the Health Organisation could offer its collaboration.

Professor PITTALUGA supported Professor Bordet's statement. The Medical Director's statements had overcome the objections which had been raised.

As Assessor to the Department for the Spanish Colonies, he approved the President's proposal.

Professor Léon BERNARD thought that the question was somewhat serious. It seemed that it would cause disagreement in the Committee and he wished it to be cleared up as completely as possible.

The reasons put forward by the Bureau appeared to be the following :

(a) The Health Committee had received very definite instructions and should not try to escape from them : it would be the first time that it had so acted.

(b) The question itself was of very great importance.

On the other hand, Sir George Buchanan had raised the following objections :

In the first place, the Committee should avoid undertaking additional work. To that the reply could be that the Committee was not really undertaking any new work ; the work would be done by the Medical Directors.

Secondly, Sir George Buchanan thought that the Office international was sufficiently well equipped to ensure the necessary liaison. To this objection, again, it was easy to reply that this would not be the first time the same question had been dealt with by both the Office international and the Health Committee. There was really no reason why the latter should not take an interest in the question. Moreover, the Office had asked to what extent it could collaborate, and the Committee could certainly offer a number of facilities.

Professor Léon Bernard therefore saw very clearly the reasons which militated in favour of the adoption of the proposal and found no valid reason against it. At any rate, if one existed no one had mentioned it.

M. ABT said that in his opinion the question raised by Dr. Lasnet referred to the special problem of the setting up at Dakar of an epidemiological office.

Dr. RAJCHMAN maintained that Dr. Lasnet's request had a more general bearing. Moreover, Dr. Lasnet had discussed the matter with him in advance.

M. ABT pointed out that the representatives of the Belgian, British and French Colonial Administrations often raised questions at the Office international which particularly interested them. It might happen that in regard to a particular question the assistance of the Health Committee was needed, and in that event the Committee could be certain that the Office would pass it on.

Dr. RAJCHMAN was glad to see that in the Health Committee, as in other meetings of the League of Nations, a spirit of frankness was increasing.

He regretted that M. Abt had raised a question of principle. From the point of view of the Secretariat, Dr. Rajchman felt obliged to state very plainly that it would not accept M. Abt's interpretation of the powers of the Office and the Committee respectively. The Covenant had left to the Health Organisation complete freedom to examine any question which interested it. The Committee would respect the "gentleman's agreement" which bound it to the Office in regard to international health conventions. For the rest, if M. Abt's interpretation were accepted, its rôle would be reduced almost to nothing.

The Committee was unable to accept the principle that Colonial Administrations, when they wished to approach it, must be obliged to do so through the intermediary of the Office. For ten years the Committee had taken up a very definite attitude on this matter and could not now depart from it.

Professor JITTA considered that the discussion was not following the direction which the Committee should desire. The question which had been raised was important and it would be preferable to adjourn it until the end of the session, when the Committee would have before it the minutes of the meeting of the Committee of the *Office international*.

Professor Léon BERNARD asked that this discussion should, if possible, be continued before the end of the week in order that he might be present.

M. VELGHE saw no objection to that. Since the position of the Office international d'Hygiène publique had been contrasted with that of the Health Section he felt obliged to speak.

As a member of the Bureau he had raised no objection to the proposal. That proposal, as it was drawn up, could be understood in a more or less broad sense. In M. Velghe's opinion there could be no question of any desire to set up a body which would compete with the *Office* at Paris. The latter called meetings of a large number of representatives of Colonial Administrations which had very interesting discussions. The new Commission, however, would not in any way prejudice the activity of the *Office*. On the contrary, the latter could not but benefit from the new collaboration, for everything that took place at Geneva reacted on Paris.

When the position of the colonies was examined it was noted that their medical resources were inadequate and that many serious diseases laid a burden on the native populations. The collaboration of the two great health organisms with a view to improving this position would not be out of place.

The PRESIDENT thanked M. Velghe. His intervention had helped to elucidate the discussion. The President asked the Committee whether it wished to adjourn the conclusion of the debate to a later meeting.

Sir George BUCHANAN said that so far as he was concerned he would prefer to adjourn the conclusion of the discussion for a few days in order that the members of the Committee might be better informed on the matter.



His intervention had been inspired by no other reasons than those which he had explained. Before taking a decision of principle in regard to the invitation which would be addressed to the Directors of the Health Services of the Colonial Ministries, he thought it necessary to be sure how that invitation would be welcomed by the countries concerned. He proposed that the Committee should ask the Medical Director to be good enough to enquire into this matter in the first instance.

M. VELGHE wished, in order to complete his opinion, to explain in what the proposal consisted. The intention was to call a meeting of colonial officials without specifying their mandate, which would remain general. They could study all diseases. The proposal might be amended and the Medical Directors asked to indicate the diseases which they wished to consider. A conclusion could be drawn from their replies at the next session.

Professor Léon BERNARD asked M. Velghe to draw up a written text of the proposal, amended in the manner he had just indicated, and in conformity with the explanations of the Medical Director.

M. VELGHE was prepared to do so after agreement with Sir George Buchanan.

The PRESIDENT noted that the Committee agreed that the conclusion of the discussion should be adjourned to a date in the latter part of the week and that M. Velghe would submit a written text.

Returning to the list of proposals which he was submitting to the Committee he suggested that :

21. The present composition of the *Commission for the Co-ordination of Studies on Human Trypanosomiasis* should be maintained: Chairman, Dr. Andrew Balfour; members: Dr. Bagshawe, Professor Van Campenhout, Professor Gustave Martin, Professor Damas Mora, Professor Aldo Castellani, Dr. Max Taute, Professor Pittaluga and Professor Richard Strong.

Sir George BUCHANAN wished to know whether this Commission had done effective work during the past two years. Interesting results had been achieved at the beginning which had led to the Second International Conference on Sleeping-Sickness. Did the present situation, however, justify the continuance of this Commission?

Dr. RAJCHMAN replied that its continuance was indispensable. The Second International Conference set up a technical Committee with a twofold task. In the first place, it was to collect all the literature on sleeping-sickness and to bring it to the attention of the Governments. In the second place, it was to propose to the League of Nations the names of persons who should be given scholarships. That Committee had not yet met, and the Health Committee would fail to its duty if the Commission on sleeping-sickness were dropped.

Sir George BUCHANAN thanked Dr. Rajchman for his explanations.

The PRESIDENT informed the Committee that :

22. With regard to the *problem of nutrition* a memorandum on the most appropriate methods for its study would be submitted by the Medical Director at the Committee's next session. Meanwhile, a special study of the *problem of rice in the Far East* would be made in collaboration with the Eastern Bureau. Proposals relating to the constitution of a small commission of enquiry would be submitted at the Committee's next session.

Dr. RAJCHMAN pointed out that Professor Léon Bernard had submitted on behalf of the French Government a proposal on the problem of nutrition. The Health Committee had requested Dr. Rajchman to study the question. Up to the present, he had been unable to submit any definite proposal. Interesting documentation had, however, been collected.

On the other hand, the creation of an international institute for nutrition had been requested in a resolution of the Quinquennial Conference of the International Council of Women (May to June, 1930) which had been forwarded to the Health Committee.

Dr. Rajchman proposed that the question should again be referred to the Health Section, with the request that concrete proposals should be submitted at the Committee's next session.

Professor Léon BERNARD wished to add that he did not know what action would be taken on the question but was authorised to say that the *Institut d'Hygiène alimentaire* would, if necessary, be at the Committee's disposal.

The PRESIDENT continued :

23. With regard to *physical education* a group of experts for the study of the question would be set up under the chairmanship of Professor Ottolenghi, who would make a proposal, to the Bureau in regard to the members. The question had been studied for a long time and Professor Piasecki had submitted a report recommending the constitution of such a committee of experts.

Dr. TSURUMI asked whether the Committee intended to maintain the Far-Eastern Commission: he considered that it had important work to accomplish.

Dr. RAJCHMAN asked Dr. Tsurumi not to insist on the continuance of this Commission. Up to the present, all it had done was to examine the Report of the Eastern Bureau and submit observations to the Health Committee. If it was this activity that Dr. Tsurumi had in mind, it would be simple to set up a sub-committee to study the report and the budget of the Eastern Bureau.

With regard to the study of other health problems in the Far East, General Graham and Dr. van Lonkhuijsen had both expressed the opinion that the Far-Eastern Commission had always duplicated the work of the Advisory Council of the Eastern Bureau.

Dr. TSURUMI observed that the Far-Eastern Commission might have a part to play in the enquiry in progress on the question of quarantine in the Chinese ports.

Dr. RAJCHMAN replied that a Special Commission had been entrusted with this question of quarantine and the Chinese Government had not asked that a Commission should examine any other Chinese health problems.

Dr. JITTA thanked Dr. Rajchman for his explanations, which had shown him the reasons for the suppression of the Far-Eastern Commission.

The PRESIDENT concluded the discussion by proposing :

24. The appointment of a *Sub-Committee for the Study of the Budget and Report of the Eastern Bureau*, over which Dr. Jitta would preside. The Committee would be composed of Sir George Buchanan, Professor Heng-Liu, Professor Nocht, Dr. Raynaud, Dr. Tsurumi and M. Velghe.

Sir George BUCHANAN understood that the Commission of Expert Statisticians would cease to exist because its task was at an end. He asked, however, whether the Committee was not required to elect certain members to join with members of the Institute of Statistics, with whom it was in liaison, for purposes of revising the international nomenclature of causes of death.

Dr. RAJCHMAN replied that the Health Committee had only been requested to do so on the occasion of the last International Conference for the revision of this nomenclature.

Professor Léon BERNARD observed that certain members of the Health Committee, among them himself, were members of the International Institute.

#### 468. Examination of the Report of the Medical Director (Annex 3).

##### I. DECISIONS OF THE COUNCIL.

*No observations.*

##### II. COLLABORATION WITH THE CHINESE MINISTRY OF HEALTH.

Dr. KING wished to give the Committee a survey of the progress made during the past few months in the carrying out of the proposals of the Chinese Ministry of Health, which were described in the Medical Director's report on his mission to China.

He wished first, however, to express the deep gratitude of the Chinese Ministry of Health to the Health Committee and the Health Organisation of the League of Nations for their close collaboration and help in the work undertaken in China.

The entire National Government joined in these thanks and gave all its support, financially and otherwise, to the authorities of the Ministry of Health to carry out the important task which it had assumed of modernising the Chinese health organisation.

In order not to abuse the Committee's time, Dr. King would give a brief explanation of the progress made.

With regard to the reorganisation of the quarantine services, he informed the Committee that since Dr. Park had left Nanking offices for the National Quarantine Service had been installed at Shanghai and that the officials had already started to inspect ships and to control the junk traffic. By order of the Ministry of Finance, the Customs Administration was providing the necessary funds.

With regard to the Central Field Health Station an extensive piece of land adjacent to the Central Hospital had been taken over by the Government. The clinic and dispensary had already started work in the Central Hospital buildings. Premises had been set aside by the Ministry of Hygiene for the installation of temporary laboratories until the new buildings were constructed. Dr. Borcic was at present visiting Peiping, Tientsin and other towns in China in order to familiarise himself with local problems.

With reference to the new national hospitals, the Central Hospital set up by means of an endowment of \$200,000 was at present in full working. Two hundred patients were being treated there and about hundred came daily for attention. The Provincial Government of Chekiang had recently approved a credit of \$200,000 for the creation of a new hospital and was collecting the necessary funds.

With regard to medical teaching Dr. Faber was at present travelling about the country with Dr. F. C. Yen and certain Chinese experts to study this problem of primary importance.

With regard to the campaign against smallpox and cholera in the port of Shanghai Dr. King had pleasure in informing the Committee that 500,000 persons had been inoculated against cholera during the past season. Considerable work had also been done in the laboratories and only a very small number of cases had been notified during the year. With regard to smallpox an average of 100,000 vaccinations had been carried out at Shanghai during the three or four past months, and there was every reason to believe that next year the figure would amount to 200,000 or 300,000.

Dr. King wished to take advantage of the present opportunity to express his warm thank to the Medical Director and the Health Organisation.

The PRESIDENT was sure he was interpreting the feelings of the Committee in thanking Dr. King for his words of praise. The results to which he had drawn attention were very encouraging, and the Committee was unanimous in congratulating the Chinese Ministry of Health.

Dr. RAJCHMAN wondered whether the members of the Committee realised the difficulties under which the Chinese Ministry of Health had had to work, especially during the past six months. The papers might give the impression that the only problems which claimed the attention of the Government were those relating to civil war. That was not the case and it was very encouraging to learn from Dr. King's statement and the information which Dr. Borcic regularly addressed to the Secretariat that the work of health reorganisation continued, in spite of all the difficulties.

It was particularly noticeable that the Central Government and the Provincial Governments, though engaged in long and expensive hostilities, could set aside important sums for the work of reorganisation.

In conclusion, Dr. Rajchman wished to emphasise the importance of the efforts made in the campaign against cholera and smallpox. Anyone who had had occasion to stay in Shanghai would be aware of the remarkable results represented by the vaccination in that town of 300,000 persons in one year.

Dr. Rajchman was authorised to inform the Committee that Dr. King had just been appointed Director of the Central Field Health Station, which filled the important rôle of advisory body to the Chinese Ministry of Health. That was a new opportunity for affirming that the collaboration between the Chinese health administration and the Committee would continue to be as close as possible.

On behalf of his colleagues, the PRESIDENT congratulated Dr. King on his appointment to so important a post.

Dr. TSURUMI associated himself with the congratulations addressed by the President and the Medical Director to the Chinese Ministry of Health. He was particularly interested in the question of quarantine and would submit observations after Dr. Park had made his statement.

The campaign against smallpox and cholera in Shanghai was of very great importance to the public health, not only of China but also of neighbouring countries, and Dr. Tsurumi would be glad to have additional information on this matter.

Dr. RAJCHMAN said that he would be at Dr. Tsurumi's disposal at the end of the meeting and would give him all the information he desired.

Dr. LUTRARIO had learned with satisfaction that Chinese medical officials had been requested to study the working of the sanitary administrations of certain European ports. He pointed out that in Italy several ports had been organised with great care from the sanitary point of view, particularly with regard to the fumigation of ships, and it would be interesting if the Chinese officials could visit some of those ports, in particular Venice, Naples and Genoa.

Dr. RAJCHMAN took note of Dr. Lutrario's offer, for which he thanked him.

Sir George BUCHANAN said that in England they had been very much struck by the interest taken by the Chinese official who had come to study port sanitary administration. His instruction had been arranged by the port sanitary authorities of London and Liverpool, and he thought that the Health Committee should be grateful to those authorities and their medical officers of health. If new visits were contemplated, it would be desirable to inform the local authorities in good time, so that they could make the necessary arrangements.

Dr. RAJCHMAN drew attention to the help given by the sanitary authorities of the ports of London and Liverpool, which the Health Committee greatly appreciated.

### III. CURRENT WORK OF THE HEALTH SECTION.

#### I. *Service of Epidemiological Intelligence.*

Sir George BUCHANAN wished to make a small observation in regard to the publications of the Health Organisation which dealt with epidemiological intelligence—namely, the *Weekly Record* and the *Monthly Report*. Certain members of the Committee had indicated how much importance they attached to these publications, which obviously met a demand in a great number of countries.

The health administrations in Great Britain were not so interested in them except for the part devoted to the official intelligence supplied under the Sanitary Convention. They had a complementary system of information through the British consular agents and they made their own epidemiological studies in their own way. At the same time, the fact that the publications of the Health Organisation were not used in Great Britain to such an extent as elsewhere did not decrease their importance.

When opinions were expressed in these publications they were necessarily personal opinions, and it was inevitable that they should not always be accepted by all those concerned. It should, however, be clearly stated, as the President had suggested, that they in no way bound the Health Committee or the Health Organisation of the League of Nations as a whole.

He wished to emphasise how important it was to pay the greatest attention within the limits of possibility to the accuracy of the information. On several occasions the British administrations had been embarrassed by the publication of incorrect information. He quoted as one example the already ancient history of cases of smallpox introduced by the s.s. "Tuscania". It had been very difficult to put an end to the false rumours which circulated in this connection, and they had only finally been removed when the various national administrations had received and accepted the official British statement which Sir George Buchanan had forwarded to the *Office international* at Paris. It was there explained that fifty cases of incubation had been noted and very carefully watched and that secondary cases of the disease had developed only in five cases, which had not, moreover, been very serious. Two or three months later, however, the Monthly Report indicated that the Tuscania had caused an epidemic of 200 or 300 cases in England.

Dr. RAJCHMAN thanked Sir George Buchanan for his criticisms, which were quite justified. The Epidemiological Intelligence Service would profit by them. He wished, however, to remove one or two slight misunderstandings.

It seemed to him that Sir George Buchanan had not drawn a sufficiently clear distinction between the weekly records and the monthly reports. The weekly record was limited to facts, and the Medical Director would be grateful if Sir George Buchanan would give instructions to the Services which he directed to draw the Health Section's attention to any mistakes which might slip into the information. He did not think that important mistakes had often been noted up to the present.

With regard to the monthly reports, Dr. Rajchman fully approved the President's proposal that it should be stated at the beginning of the report that the Health Committee was not responsible for the articles published. He informed his colleagues that the rule of the Section would be applied more strictly namely, that articles published by the Section should never be signed.

Dr. Rajchman asked permission to return to the affair of the "Tuscania" at the next meeting.

Dr. CARRIÈRE wished not to criticise but to praise. It had already been said that the surveys on certain infectious diseases published in the monthly reports were of great importance. Dr. Carrière wished to draw attention to their usefulness: it was very difficult for the Services concerned to keep themselves satisfactorily well informed as to these diseases, and he himself intended to publish in the weekly bulletin of his Service summaries of the articles contained in the monthly reports.

Sir George BUCHANAN would be glad to give any additional information for which he might be asked on the "Tuscania" affair.

He was in favour of the President's proposal in regard to the note which should appear at the beginning of these publications. If they were not signed by the author, the Health Section, and in consequence the Medical Director, would have entire responsibility for the views expressed.

Dr. RAJCHMAN observed that the responsibility could hardly be heavier than in the past, seeing that in the course of nine years only three articles had been signed.

Dr. LUTRARIO observed that the note which it was proposed to place on the first page of the publications might take away a great part of their authority.

Dr. RAJCHMAN thought that it was nevertheless very desirable that it should be included.

In reply to Dr. Lutrario Sir George BUCHANAN said that in an English publication of the Anti-Vaccination League with an extensive circulation articles had appeared in which no distinction was made, so far as the Health Committee's responsibility was concerned between a report of the smallpox Commission over which Professor Ricardo Jorge had presided and certain information obtained from the weekly record of Epidemiological Intelligence.

Sir George Buchanan then referred to the last paragraph of the chapter on Epidemiological Intelligence, which drew attention to the broadcasting in clear of information from the Nauen station in Germany. He pointed out that he had made reservations in regard to this broadcast which appeared in the Minutes, reservations which he had also reported to his Department and to the *Office international* at Paris. He regretted that this broadcast in clear had been agreed upon without a fresh consultation of the Committee.

Dr. RAJCHMAN wished in the first place to make it clear that the Bureau was not responsible for the incriminating decision having been taken by the Health Section.

He drew attention to the following facts. For four years four wireless stations had broadcasted summaries and epidemiological information in clear, and the Saigon station broadcasted complete information. For four years also the Nauen station had broadcasted the information in code. In order, however, to meet the repeated requests of the Eastern Bureau it now broadcasted in clear. Dr. Rajchman saw no difference between this broadcast in clear and that done at Saigon.

M. VELGHE had no objection to continuing this practice, although it was not without its inconveniences, but did not think it desirable to extend it to other diseases, as this method of disseminating information might, in many cases, create panic among the public.

Dr. RAJCHMAN assured him that no further addition would be made until the preliminary opinion of the Health Committee was obtained.

The PRESIDENT noted that the members agreed that the publications concerning epidemiological information should be continued.

All the difficulties would be removed by very slight changes.

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#### FOURTH MEETING.

*Held on Thursday, October 2nd, 1930, at 10 a.m.*

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*President: Dr. Th. MADSEN.*

#### 469. Proposal of the Spanish Government for a European Conference on Rural Hygiene.

Professor PITTALUGA read the report of the Sub-Committee (Annex 5.c.).

Sir George BUCHANAN, in thanking Professor Pittaluga, said that the interest of Great Britain in a European Conference on Rural Hygiene was considerable. The geological characteristics of the British Isles had led to very varied types of rural organisations. The fact that a large part of the British population lived by agricultural labour was often overlooked. It would seem desirable to draw up the programme of work of the conference as soon as possible. Something more than the main outlines was necessary if the Governments were to be in a position to appoint appropriate delegates.

Professor Ricardo JORGE heartily congratulated Professor Pittaluga, who had inspired the movement which had led up to the Spanish proposal. The Sub-Committee's report, of which he was the author, was remarkably moderate, concrete and practical, and Professor Jorge had no observation to make in regard to the formula and procedure proposed in the report.

He wished, however, to make a reservation in regard to the composition of the conference. He did not understand the necessity for restricting by the adjective "European" the number of countries which would take part, when agricultural labour raised similar problems throughout the world.

It was true that the Spanish proposal provided that observers from non-European countries could be invited to attend the Conference, but Professor Jorge considered that though the presence of observers could be justified at a political meeting that was not the case with a scientific meeting. If observers were present at the discussions of the Conference why should they not take an active part in it? In particular, it would be very valuable to have the advantage of the experience of the United States, especially in regard to agricultural technique, which was of great importance from the health point of view.

At the present time, technical economic and social questions could not be separated from health questions, and there was one factor in particular which militated in favour of a more extensive representation on the contemplated conference—the soil of certain districts in Europe did not suffice to nourish a surplus population and the latter emigrated to new countries. From northern Portugal, as from northern Spain, a wave of emigrants, which continually became more considerable, flowed towards South America. Professor Jorge did not see why a distinction should be made between the mother country and its former colonies. Italy, Poland, Czechoslovakia, Hungary and other countries also contributed an important contingent to European emigration. Why not consider the element of the population which left in the same way as that which remained?

Moreover, the bonds uniting these two elements were complex, and though the emigrants who returned to their native country brought with them their savings they also brought certain diseases, such as tuberculosis, which was now prevalent in certain districts of Portugal where it had been unknown for forty years. It would be easy for Professor Jorge to develop this argument much further, but he thought he had demonstrated sufficiently the necessity for endeavouring to solve the problem of rural hygiene in its entirety.

M. VELGHE was very much impressed by the arguments put forward by Professor Jorge but regretted that he did not agree with him: the Health Committee was faced with a well-defined scheme. The League Council had accepted the proposal of the Spanish Government, and it seemed that the Health Committee could not change it. The Committee could only express its opinion. Professor Pittaluga might possibly draw the Spanish Government's attention to that opinion.

Moreover, M. Velghe thought that the Spanish Government had been wise to limit to Europe the countries which should take part in the Conference. It would only sit for a few days, and it was important—as Sir George Buchanan had observed—to limit the programme.

of questions to be discussed, apart from which the reports submitted could not be examined with the necessary care. In addition, this was merely a conference—in other words, a meeting with a not very definite character, and for whose task the arguments which had to be taken into account when a permanent institution was set up were hardly applicable.

If it was desired that the conference contemplated should do useful work, it was essential to limit its terms of reference. Though there were certain points of resemblance between rural problems throughout the world, the differences presented between one country and another were much more numerous. Within the field of Europe alone those differences were very pronounced. With regard, for instance, to medical assistance to the rural population, the problem was not the same in Belgium, where the population was very dense, and in France, although they were neighbouring countries.

Consequently, M. Velghe thought it would be preferable to convene other conferences, if necessary, in other continents for the study of the rural problems of those continents, rather than to leave to a single conference the solution of those problems throughout the world.

Dr. JITTA began by congratulating Professor Pittaluga and the Sub-Committee. Generally, he was only too pleased to follow Professor Jorge, but in the present case he agreed with M. Velghe. Professor Jorge was right in principle, but in addition to M. Velghe's objection that the Health Committee could not go further than the Spanish Government had gone, there were also practical reasons against the convening of a world conference.

Thus, for instance, the Sub-Committee had suggested April 23rd, 1931, for the opening of the conference, and it would be difficult to convene the countries of the whole world for that date.

It would be possible to refer to Professor Jorge's opinion in the report of the Health Committee and to explain that the conference was only limited to Europe for practical considerations, and that the Health Committee reserved its right to make more comprehensive suggestions if necessary.

Dr. Jitta wished to raise questions on points of detail.

1. How would the Conference be composed? Would all the European countries be invited to send representatives or only some of them?

2. The following passage occurred in the report:

“ We would ask the Health Committee to accept this Committee's suggestion and to point out to the Council the desirability of sanitary engineers, administrators, representatives of farmers' associations, representatives of social insurance associations, being sent to the Conference. . . ”

Was that necessary, and if so would it not be desirable to complete the list? No reference was made, for example, to veterinary experts whose views might be very useful.

As a member of the Sub-Committee for the study of the Spanish proposal Dr. CARRIÈRE congratulated Professor Pittaluga on his clear summary of the sometimes confused discussions of the Sub-Committee.

With regard to the question itself, he did not agree with Professor Jorge's opinion, and supported that of M. Velghe. In his opinion the convening of an international conference would only lead to confusion pure and simple, owing to the great differences presented by rural problems in the various continents. Moreover, the object of the Conference was not to draw up an international convention, but simply to make recommendations.

Professor PITTALUGA wished first to thank Sir George Buchanan for his approval of the report, and to assure him that all the members of the Health Committee very much hoped that her overseas Empire would not prevent Great Britain from considering herself as interested in all European problems.

There might seem to be a contradiction between the beginning of the report, which emphasised the necessity for limiting the programme of the Conference and giving clear and concrete definitions to the questions placed on the Agenda, and the very wide scope of the three subjects proposed in the continuation of the report. That contradiction occurred because the Sub-Committee, after indicating what general principles should be followed in preparing for the Conference, had very naturally been careful, when it came to defining the programme of the Conference, not to fix too narrow limits to the future decisions of the Rapporteurs of the Conference. It was obvious that the three fundamental problems selected were very vast, but it would be for the Rapporteurs of the Conference to limit and define them and Professor Pittaluga did not think that that could be done immediately.

Professor Jorge's observations on the report were inspired by a spirit of universality. The practical reasons, however, for limiting invitations to the Conference to European countries had been explained so forcibly by M. Velghe that Professor Jorge himself must have been convinced, and he would doubtless be satisfied if the Bureau of the Conference proposed that at future international conferences on rural hygiene all the nations of the world should be represented. The Health Committee was tied because the Council had accepted the Spanish Government's proposal, which was limited to Europe. Moreover, the presence of non-European observers indicated in what spirit this Conference would be convened.

As to the question raised by Professor Jitta regarding the list in the report, Professor Pittaluga wished to point out that the list was only given by way of suggestion. That it was not limitative was indicated by the word "etc.", with which it ended. Professor Pittaluga was not, however, of opinion that the list should be extended. Veterinarians obviously held an important place among factors influencing public health, especially in countries such as Italy and Spain, where they worked in collaboration with hygienists and received a thorough training to that end. It certainly was not Professor Pittaluga's desire to exempt them from this Conference, but he thought it would be preferable to leave the Governments free to call upon them or not. Difficulties might, indeed, arise in connection with the relations between the various medical professions.

Dr. Jitta and Dr. Carrière had asked what Governments would be invited to send representatives to the Conference. It seemed obvious that invitations should be addressed to all the Governments, but possibly it might be desirable to appoint a preparatory commission which would be requested to examine this question.

Professor Ricardo JORGE wished to defend himself against the charge of being impractical in his ideas. M. Velghe and Dr. Jitta had to a certain extent agreed that his observations were sound. Dr. Carrière had been more explicit. He considered that it would be utopian to hope for fruitful results from an international conference. The future would show whether that point of view was justified or not.

Professor Jorge felt that emigration raised one of the gravest health problems of the present epoch, and he believed that the convening of a World Conference on rural hygiene would one day be essential owing to practical economic necessities.

International conferences constantly met for the study of the most diverse problems. Why should it not be the same for the matters which interested the Health Committee? Why should it be impossible to address invitations to all countries?

Moreover, Professor Pittaluga had outlined in his report a concrete programme for the agenda of the Conference. The first subject—guiding principles and suitable methods of ensuring effective medical assistance in rural districts—could be suggested for study by all the countries. The same was the case with two other subjects: all countries could offer valuable information.

Sir George BUCHANAN wished to assure Professor Pittaluga that he had never intended to criticise the three headings of the proposed programme. He had simply pointed out that in view of the very short time available it was important to have all possible information in regard to the date, composition and definite programme of the Conference as soon as possible.

Dr. LUTRARIO expressed his satisfaction that the report according to his suggestions referred expressly to the question of rural housing, of which he had often spoken to the Health Committee and which he considered as the centre of most rural problems. On this subject a programme of research had been established in agreement with the International Institute of Agriculture, which it might be useful to consult when the question was thoroughly studied.

In reply to Sir George Buchanan, Dr. RAJCHMAN informed him that a preparatory commission would shortly be appointed by the Committee and that that commission could immediately get to work.

Sir George BUCHANAN thanked Dr. Rajchman. He supposed that the various subjects of the programme would be divided among several Rapporteurs and that the preparatory Commission would thus be able rapidly to get to details.

Dr. RAJCHMAN replied that the methods of work to be adopted by the preparatory commission could not be prejudiced.

The PRESIDENT thought that the discussion could be considered as closed.

*The Health Committee associated itself with the congratulations addressed to Professor Pittaluga and took note of the suggestions put forward by Professor Jorge.*

#### **470. Report of the Malaria Commission on its Study Tour in India.**

Professor SCHÜFFNER thanked the Committee for inviting him to submit a commentary on the report.

That report was preceded by a note prepared by Colonel Christophers at the request of the members of the mission, explaining the whole problem of malaria and giving a survey of what had been done up to the present in India in the campaign against this disease. That study had been of very great value to all the members who had taken part in the tour. The report itself described the work of the Commission.

It was difficult to explain how rich in impressions had been this tour of five months. In the itinerary which had been very competently drawn up the routes usually followed by travellers in India had been avoided and the members of the expedition had been able to obtain a very good knowledge of the country.

The British hosts of the Commission, Colonel Christophers, Major Sinton and his assistant, Mr. Mulligan, as well as the directors of the health administrations of each province and the malarialogists attached to the railway department, had prepared for the tour down to the

smallest details. Professor Schüffner wished, on behalf of all the members, to express the gratitude of the mission to all those who had endeavoured to facilitate the tour, and in particular to General Graham.

The mission had received all possible help. In certain cases notes had been specially drafted for its use, and these have been attached to the report in the form of annexes.

When a province had been visited, meetings had been held at which the mission had endeavoured to arrive at the result of the work done, Dr. Ciuca and Dr. Peltier had drafted Minutes of such meetings on the basis of which the report had been drawn up, in the first place in the form of a draft by Professor Swellengrebel.

Professor Schüffner then indicated the main stages of the tour, Bombay; the Punjab, Calcutta and Bengal, Rangoon and Burma, the eastern coast of the Indian Peninsula and Madras, returning to Bombay by the south of India.

Malaria was found in India in its most diverse forms. This disease, however, had certain special characteristics, and the mission had distinguished four main local malaria problems which should be studied separately, for entirely different measures were needed to combat them.

1. *The Urban Malaria Problem.* — This problem, apart from the case of Jerusalem, appeared to be peculiar to the Indian towns. It was clearly caused by a single type of anophelene, the *A. Stephensi*, whose breeding-place was in wells in the houses and in cisterns on the roofs. That explained the origin of the epidemics limited to one family or to the inhabitants of one house, which so often occurred.

The remedy seemed easy. The work of Bentley had already indicated it in 1911. It would suffice to seal hermetically all wells and cisterns. The natives, however, showed great repugnance to allowing strangers to penetrate into their houses, and for all kinds of social and religious reasons did not wish the water, which they think ought to be exposed to air and sun, to be touched.

2. *Bengal Delta.* — Malaria had only begun to prevail in this delta seventy or eighty years ago, and districts which had formerly been flourishing had been to a great extent depopulated by this scourge. It seemed that it could be imputed to the work of all kinds, construction of dykes, railways, roads, etc., which had led to the cutting of numerous small channels from the Ganges delta, the water of which had become stagnant. In districts where the water still ran freely, the situation was much better. The spleen index was from 2 to 3 per cent instead of from 80 to 90 per cent.

The improvements proposed by Bentley included a whole system of irrigation and drainage which would result in giving the delta its original character. The expense involved in this scheme would be enormous, but the mission entirely approved of it in principle.

3. *Punjab.* — Here the mission noted a converse phenomenon. In this originally dry district extensive irrigation work had been done by the English, and the level of the water had risen considerably, to the extent of becoming level with the surface in certain places. The new humidity of the land had led to the development of malaria. One of the characteristics of the scourge in the Punjab was the appearance of a terrible epidemic every eight or ten years, the reasons for which were as yet unexplained. Doubtless the atmospheric conditions played an important part. In specially damp years the anopheles developed in August and their action started in September. In drier years, on the other hand, the mosquito only developed in September, and the temperature was then too cold for it to be very harmful.

4. *Districts at the Foot of the Mountains.* — At the foot of the Himalayas was a very rich district devoted to the cultivation of tea, where terrible epidemics raged. New immigrants constantly arrived from the healthy districts, who, being non-immunised, were attacked *en masse*. It seemed that in this case the only solution, in spite of the richness of the soil, was to put obstacles in the way of immigration.

For the solution of the various problems to which Professor Schüffner had just called attention, very vigorous efforts had been made and they had often given important results. It should be pointed out that in the industrialised districts the development of the railways made it possible to carry on the campaign with rational methods. Thus Dr. Ramsay had been able, in the Cashar district, to take very effective measures at a cost of one rupee per head. In less-developed districts the cost was much higher.

Professor Schüffner then summarised the conclusions at which the mission had arrived. In the first place, all those concerned had insisted on the importance of devoting more considerable sums of money to the campaign against malaria. The country was so great and the population was so numerous that this campaign necessarily involved considerable expenditure.

On the other hand, the medical assistance available was obviously inadequate: on an average there was one doctor to 20,000 to 40,000 inhabitants.

A very important question was the thorough training of doctors. Colonel Christophers had taken in hand the organisation of special schools. The members of the mission had followed certain of the courses and were appreciative of the excellent work done. Finally, there was a series of problems in regard to which the opinion of the mission sometimes differed from that of British circles: those concerning studies in regard to the campaign against malaria.

In the first place, there arose the question of immunisation. Could the use of quinine be given up and only natural remedies be used?



With regard to the question of splenetic fever it had to be admitted that no solution had yet been found.

Finally, the mission considered that, in the study of the different kinds of anopheles, an endeavour should be made to establish biological distinctions when morphological distinctions were difficult to make.

Professor Schüffner concluded by saying that, though the tour had thrown light on a certain number of problems, it had also shown the necessity for continuing to study them.

The PRESIDENT thanked and congratulated Professor Schüffner.

Dr. LUTRARIO, who had presided over the plenary meeting of the Malaria Commission at Algiers in May 1930, at which the report of the mission to India had been submitted and adopted, wished to express his admiration of the work accomplished. This study tour in India was the culminating point of the Commission's activity up to the present. The programme had been very carefully prepared in advance, with the help of Colonel Christophers and General Graham.

The mission had collected a very great number of observations and new ideas on the scourge, which in some years claimed more victims than all the other infectious diseases in India.

In that immense country, with a population of more than 300,000,000 inhabitants, who were to a great extent scattered among innumerable villages, the British Administration had attained very appreciable results in the campaign against malaria, mainly in the scientific field of which Kasauli was a very remarkable centre. It had been very rightly said at Algiers that the three principal stages in the history of malaria in regard to parasitology had occurred successively in Algeria, Italy and India.

The Health Committee would certainly wish to thank General Graham and Colonel Christophers very warmly, as well as Professor Schüffner and his collaborators.

Dr. RAJCHMAN pointed out that as a matter of procedure the Health Committee should adopt the report and forward it to the Council. The Committee would also probably request the Council to communicate the report to the Government of India.

Dr. Rajchman proposed that a resolution should be prepared for submission to the Committee.

#### 471. Statement by Professor Swellengrebel on Malaria in Bulgaria.

Professor SWELLENGREBEL began by summarising the conclusions of his report on malaria among the refugees in the Government of Burgas in Bulgaria (Annex 7).

With reference to the divergencies of opinion which had been shown in regard to the anti-malaria campaign in Bulgaria, he wished to point out that it was not really possible to speak of different schools. All admitted the need for the campaign and some simply held that this campaign should not be isolated but should be developed on parallel lines with the other measures of health reorganisation in the country.

Dr. Kessiakoff, Director-General of Public Health in Bulgaria, had sent a note in reply to Professor Swellengrebel's last report. In spite of certain reservations that note proved that the Bulgarian health authorities were determined to continue the anti-malaria campaign by following the main principles of the recommendations of the High Commissioner of the League of Nations and within the general framework of the new health organisation of the country.

The PRESIDENT thanked Professor Swellengrebel. His mission would certainly have important results.

Professor PITTALUGA wished, on behalf of the members of the Malaria Commission, to draw attention to the importance of Professor Swellengrebel's work. Professor Pittaluga was aware of the great difficulty of the task, not only from the point of view of local problems but also owing to existing prejudices.

The report showed that he had been able to apply the principles which had been recommended.

Dr. RAJCHMAN explained that Professor Swellengrebel's report would form part of the series of reports submitted to the Health Committee and the Bulgarian Government.

The Bulgarian health authorities had been invited to send a representative to the present session of the Committee. Dr. Kessiakoff had informed the Secretariat that he regretted his inability to come to Geneva; he had, however, sent a memorandum which had been studied by the Malaria Commission.

Dr. Rajchman pointed out that this question of malaria had been discussed by the Council and the Financial Committee in connection with the general problem of Bulgarian refugees. It had been understood that from April 1st, 1931, the Bulgarian Government would be responsible for the anti-malaria service. The Council had thanked that Government, and had recommended that the campaign should be continued energetically. The Bulgarian Minister for Finance had given the assurance that the Bulgarian Government would do its best to continue to apply the measures which had been adopted.

**472. Status of the Members of the Health Committee.**

The PRESIDENT recalled that Professor Bordet had, at the first meeting of the session, raised the question of the respective positions of the different categories of members of the Committee. The Bureau had examined the question and submitted the following draft resolution :

“ The Health Committee :

“ Having considered the question raised at its meeting on September 29th, 1930, concerning the position of the various categories of members of the Committee ;

“ Having ascertained that there is nothing in the Rules of Procedure to prevent the experts, whose appointment is provided for by Article 9 of those Rules, having the right to vote :

“ Decides that these experts shall enjoy the same privileges as those granted to other members of the Committee.”

That resolution could be submitted to the Council on the following day, and the proposed alterations would immediately enter into operation.

To a question from Professor Léon Bernard, the President replied that the category of assessors had been suppressed.

*The resolution was adopted.*

**473. Examination of the Report by the Medical Director (Continuation).**

III. CURRENT WORK OF THE HEALTH SECTION (*continuation*).

B. *Eastern Bureau of Singapore.*

*No observations.*

2. *System of Liaison with the Health Administrations of Different Countries.*

Professor Léon BERNARD, referring to the congratulations addressed to him at the end of the paragraph concerning the general study tour in France, thanked the Medical Director and wished to associate in those congratulations Dr. Biraud and Dr. Forestier, who had played a very considerable part in organising the tour.

He had been requested officially to act as spokesman for the Chief of the French Health Administration in expressing the satisfaction which the study tour had given. The reports submitted would be of great value to the French services.

On behalf of the Health Committee the PRESIDENT associated himself with the thanks addressed in the report to Professor Cantacuzène and Dr. Stampar for organising the study tour in the Balkans.

Dr. TSURUMI offered the Health Committee the thanks of the Japanese Government, at whose request the study tour in the Far East of port health officials had been undertaken. The Japanese health authorities had been very glad to receive Dr. Park and his colleagues.

Sir George BUCHANAN wished to refer to the collective tour proposed in the programme for 1931 with a view to the study of the milk supply. If this tour was, as stated, to be limited to a small number of persons, it was difficult to reconcile the idea of national representation with the other idea, which seemed also to have been accepted, of securing experts with different types of knowledge. A great many countries were interested in the question and would like to be represented. Was one country to be asked to send a bacteriologist, another a veterinary surgeon, a third a medical officer of health, and so on ? He thought that the idea of specialised experts might be pressed too far.

Dr. RAJCHMAN replied that in view of the very great importance of a visit to the United States, where facilities had been promised for the organisation of the tour, and the importance of including among the participants hygienists who had some influence on the milk policy of their respective countries, the best solution would be to organise two tours ; a large group would visit the European countries, and a small group, emanating from the first group, would complete the tour by a visit to the United States.

Sir George BUCHANAN still thought it necessary to come to an understanding in order to ensure balance among the members of the mission between the number of hygienists, veterinarians, bacteriologists, chemists, etc., who would be nominated.

Dr. CARRIÈRE pointed out that what Dr. Rajchman had called the “ milk policy ” was being studied in Switzerland at the present time. He hoped that Switzerland would be among the countries visited. That country would be very glad to receive the mission and hoped that a Swiss representative would take part in the tour.

Professor PITTALUGA said that the question of the milk supply greatly interested Spain.

The report recommended that the participants in the tour should be officials connected with the municipal health administration. Owing to the autonomy of municipal organisations, which was general throughout Europe, those organisations would appoint their representatives, and Professor Pittaluga asked what measures would be taken to avoid undesirable appointments.

M. VELGHE thought that the Medical Director and the various Governments should be given the greatest latitude in the choice of the members of the tour.

In his opinion, though it was necessary to ensure the inclusion of persons with somewhat diverse types of specialised knowledge, it was especially important to appoint organisers. Indeed, many attempts at organising the milk supply in the different countries had already been made. The stumbling-block had always been the high price of milk supplied by the organisations which had been set up with that object.

The collaboration of veterinarians, bacteriologists, and other specialists was not sufficient to assure an unfettered supply; organisers were also needed, preferably municipal administrators.

Dr. JITTA expressed the hope that the Netherlands would also be visited.

Dr. RAJCHMAN thanked the members of the Committee for their observations. Switzerland and the Netherlands would certainly be among the countries visited.

With regard to the composition of the mission, if the Health Committee would be good enough to follow M. Velghe's advice it would not be difficult for the Health Section to come to an agreement with the health administrations, so that its composition would meet the needs of the case. Dr. Rajchman explained that the Section always approached health administrations directly and not through the intermediary of Governments.

Professor FITZGERALD hoped the Commission would also visit Canada. An official invitation could be sent to the Health Committee if necessary.

Dr. RAJCHMAN thanked Professor Fitzgerald for his proposal. He would discuss it with him later.

The PRESIDENT wished to support M. Velghe's view. He pointed out that the duties of veterinarians varied according to countries. In certain districts they were not only technicians but also organisers. He felt sure that, after thanking the different organisers of the study tours individually, the Health Committee would also wish to thank the French, Roumanian and Yugoslav Governments, which had given every possible facility.

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#### FIFTH MEETING.

*Held on Thursday, October 2nd, 1930, at 5 p.m.*

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*President: Dr. Th. MADSEN.*

#### 474. Establishment of an International School of Advanced Health Studies at Paris.

Professor Léon BERNARD read his report on behalf of the Sub-Committee appointed to examine the French Government's proposal (Annex 4 c). The French Government had just given its final approval to the draft Organic Statute of the International School, and, in particular, to Article 10 (Budget)—which was similar in all points to the corresponding article in the Statutes of the Educational Cinematographic Institute at Rome—and to Article 13, in regard to which the following slight modification had been requested:

“ . . . A report on the work of the School shall be forwarded each year by the Governing Body to the Council of the League of Nations and to the Government of the French Republic, which may communicate it to the French Parliament. It shall be communicated to all Members of the League of Nations.”

Professor Léon Bernard pointed out that the French member of the Managing Committee appointed by the French Government would also, *de jure*, be a member of the Governing Body.

Sir George BUCHANAN said that the Health Committee should be grateful to Professor Léon Bernard and to the Sub-Committee which had assisted him for having submitted in so clear a form all the necessary information in regard to the nature and details of the organisation of the school.

Thanks to the excellent step taken by the French Government, the Health Organisation of the League of Nations would have at its disposal a valuable instrument by means of which public health officers could be trained in questions concerning modern practice. The French Government's scheme, he noted, was not intended either to replace the teaching given in the national schools or to interfere with any instruction which they give on international matters. The schools of hygiene in the British Empire, and, in particular, the London School of Hygiene

and Tropical Medicine might, for example, decide to undertake special courses of instruction for foreign visitors and in this could co-operate with the new school; although naturally there would be no question of placing such courses of instruction under the direction of the League of Nations.

Professor Léon BERNARD noted that the Health Committee unanimously agreed with Sir George Buchanan's friendly observations.

He was very grateful, both on behalf of the French Government and of himself, for the approval of the Health Committee. No appreciation was so valuable to him as that just offered by Sir George Buchanan, who represented one of the soundest and most complete health organisations in the world.

The PRESIDENT said that the Health Committee should be extremely grateful to the French Government for having left almost the whole of the control of the new school in its hands in so very generous and liberal a manner.

Dr. RAJCHMAN pointed out that the report would be submitted to the Council on the following day with any observations which the Rapporteur—the representative of the Irish Free State—wished to offer.

#### **475. Opium: Application of Articles 8 and 10 of the International Opium Convention of Geneva.**

Dr. CARRIÈRE, Chairman of the Opium Commission, presented his report (Annex 12) and submitted the following draft resolution:

“ The Health Committee,

“ Having considered the report of its Opium Commission on certain questions arising from the application of Articles 8 and 10 of the Geneva International Opium Convention, and the opinion given by the Permanent Committee of the Office international d'Hygiène publique in virtue of these articles:

“ (a) Adopts all the conclusions of the report of the Office international d'Hygiène publique on the application of Article 8 to the preparations proposed by the Governments of Germany, Great Britain and Siam, as they appear in document C.H.892;

“ (b) Decides to transmit to the Office international d'Hygiène publique, for opinion and report, the list of preparations proposed for exemption under Article 8 by the Estonian Government (see document C.H.892);

“ (c) Decides, in virtue of Article 10 of the Convention, to inform the Council of the League of Nations that acedicone (acetyl-dimethyl-dihydrothebaine) is liable to similar abuse and productive of similar ill-effects as the substances to which Chapter III of the International Opium Convention of 1925 applies, and recommends that the provisions of the said Convention should be applied to it.”

Dr. TSURUMI asked the Health Committee to be good enough to include his name among the members of the Opium Commission. His country was very interested in all the questions dealt with by that Commission.

Dr. CARRIÈRE welcomed this suggestion with pleasure.

*The Committee granted Dr. Tsurumi's request.*

Sir George BUCHANAN recognised that the “ occulets ” referred to in the German list were not likely to lead to abuse, and that the reasons given for exempting them from the restrictions of the Convention had great weight. Nevertheless, a somewhat delicate question arose in regard to interpretation. If the Convention were interpreted in a strictly legal manner, it could be said that these preparations should not be allowed the benefit of Article 8. The standard set up by the Convention was not based on whether a larger or smaller amount of narcotic was contained in the preparations, but on whether a narcotic drug was or was not compounded with so unpleasant a substance that the compound was not likely to give rise to a habit of addiction.

Dr. RAJCHMAN thanked Sir George Buchanan for having raised this question, which, contrary to what might be thought, was of great importance. It should be remembered that the Health Committee's recommendation would be final, and that the Council would not discuss it. If there was the least doubt as to whether the recommendation was well founded, the Committee would do well to adjourn the question.

Dr. CARRIÈRE pointed out that the quantity of narcotics contained in these preparations was so small that it would be impossible for drug addicts to use them. The latter would have to spend enormous sums of money in order to obtain an appreciable quantity of narcotics.

M. ABT pointed out that, if “ occulets ” and other similar preparations contained cocaine, it would be compounded with tropine, and the latter substance was so unpleasant that no one would be tempted to take it twice, even in extremely small doses. The recommendation of the *Office international d'Hygiène publique* could be justified simply from the fact that in “ occulets ” tropine was compounded with cocaine.

M. VELGHE thought that it would be very regrettable if the decision to be submitted to the Council were adjourned for six months. It had been before the Health Committee for a year, and the Permanent Committee of the Office international had given its decision six months ago. No one would understand why the Health Committee was unable to come to a decision. He asked his colleagues to make an effort to settle the point.

Dr. HAMEL observed that "oculets" were so small that they could be introduced into the eye without producing any disagreeable feeling. They contained equal parts of cocaine and tropine, and each of the constituents weighed three-tenths of a milligram. It was therefore impossible to conceive of their abuse.

In those circumstances, it could be maintained that, if any exemption was justifiable, it was the exemption of "oculets".

Sir George BUCHANAN thought that M. Abt had found the solution of the problem; he had no intention of objecting to that exemption. An unsatisfactory reason from the legal side had been given in the report, but the mistake could be very easily rectified by the addition, for instance, of a note drafted on behalf of the Committee by Dr. Carrière.

Dr. CARRIÈRE recognised the real reason which justified exemption—the combination of cocaine and tropine—and regretted that this point had not been stated clearly in the report.

Dr. RAJCHMAN pointed out that the next session of the Council would take place in January 1931. It would be a pity to wait until then before submitting to it the Committee's recommendation. On the other hand, a summary of the discussions of the Health Committee could not be forwarded to the Governments, nor could the report be rewritten, for there was not sufficient time for the purpose of indicating the legal reason why preparations such as "oculets" should be allowed the benefit of the provisions of Article 8.

In those circumstances, he proposed that Dr. Carrière's recommendations should be forwarded to the Council. Dr. Carrière could then either prepare, or give the Health Section the necessary instructions for preparing a short explanatory document, which would accompany the Secretary-General's letter to the Governments who were parties to the Opium Convention.

*This proposal was adopted.*

## SIXTH MEETING

*Held on Friday, October 3rd, 1930, at 10 a.m.*

*President: Dr. Th. MADSEN.*

### 476. Examination of the Report of the Medical Director (Continuation.)

#### IV. COLLABORATION WITH SOME PUBLIC HEALTH ADMINISTRATIONS.

##### A. *Liaison with Latin-American Health Administrations.*

##### 1. *Bolivia.*

Reserved (see eighth meeting).

##### 2. *Infant Mortality (Lima Conference).*

Reserved (see seventh meeting).

##### 3. *Serological Conference of Montevideo.*

Dr. RAJCHMAN stated that Professor Jadassohn had announced by telegram that the Conference had concluded its work. The results had been very satisfactory, and it had been decided to continue to collaborate with the Health Organisation.

##### 4. *Leprosy in South America.*

Reserved (see ninth meeting).

##### B. *Request made by the Bulgarian Government regarding the Campaign against Syphilis.*

Reserved (see tenth meeting).

##### C. *Anti-malaria Campaign in Bulgaria.*

The question had been examined during the fourth meeting.

##### D. *Collaboration with the Greek Government: Statement by Dr. Pappas.*

Dr. PAPPAS pointed out that factors of an entirely exceptional nature had influenced the health situation in Greece.

The Balkan wars of 1912 had resulted in the annexation by Greece of part of Macedonia and Thrace, including, in particular, a number of somewhat undeveloped districts where the Greek Government, as a result of the world war and the revolution, had been able to do very little to improve the health situation until 1922.

In 1922, as a result of occurrences in Asia Minor, a contingent of 1,300,000 refugees, 1,100,000 of whom were Armenians, had arrived in Greece, which was a country with 5,000,000 inhabitants.

All those refugees, the majority of whom were women, old people and children, absolutely deprived of all their possessions, had had to be accommodated somehow in the various Greek

ports. Had it not been for the spirit of solidarity shown by the Greek people, this would have resulted in a deplorable catastrophe and in one of the most serious consequences of the world war.

Every Greek house, however, was opened for the relief of these unfortunate refugees, and the Government, with the help of the League of Nations, had worked at the solution of the problem of establishing them in the country.

As might have been anticipated, the refugees had brought with them a great number of diseases. It was to the credit of the Greek health services that, in a few months, thanks to the devotion of the Greek doctors, the epidemics of exanthematic typhus, cholera and smallpox which had broken out had been arrested.

The presence of these refugees had given rise to a number of health problems.

In the first place, they had had to be fed, and the stocks of food had proved insufficient.

In the second place, there had arisen the very difficult question of the water supply. Water was scarce in Athens, at the Piræus, at Salonica and in the Macedonian plains. Only four years ago the Government had deepened the Lake of Marathon, which provided the water necessary for the population of Athens. In Macedonia, artesian wells for ensuring a water supply to the agricultural refugees had been bored, but those wells had led to an unfortunate result—the appearance of malaria.

In the third place, the problem of housing had had to be solved. At Athens and the Piræus alone, however, the population had risen in one year from 300,000 inhabitants to 1,000,000.

Finally, the number of hospitals, maternity homes and lunatic asylums had been inadequate.

The Greek Government had had to try to remedy all these difficulties at the same time. In eight years 180,000 dwellings had been constructed, in which 1,000,000 refugees could be housed. There still remained 200,000 refugees to be housed, for whom 20,000 dwellings were necessary. A credit of 100,000,000 drachmas had been included in the last budget for the construction of cheap dwellings for workers in the towns.

Two thousand kilometres of road were under construction, and a great number of ports were being fitted out in such a way as to make possible better supervision from the health point of view.

It must, however, be pointed out that, though the refugees had constituted a formidable burden on the Greek State, they had become, little by little, a productive element, and that was a point to which attention should be drawn.

Thus, the carpet and silk industries had been introduced into Greece. The preparation of raisins and figs had been developed, and the yield from fishing had been greatly increased. Finally, the production of tobacco had trebled, and the production of cereals had increased by 60 per cent.

As might be expected, the health situation was improving gradually, as the material conditions under which the refugees lived improved. Thus, for instance, thanks to the sixty medical and health centres set up in Macedonia, the mortality rate, which in 1923-24 had been from 30 to 50 per cent in the refugee villages, had now fallen to 17 per cent, while the birth rate had risen from 12 to 40 or 55 per cent.

It had, naturally, been impossible to avoid certain mistakes, of which the refugees had suffered the consequences. Several villages had been established in malaria districts. Other villages which had previously been exempt had been the victims of malaria epidemics as the result of the boring of artesian wells. Finally, mistakes had been made in regard to latrines and sewers.

At present, however, the authorities were endeavouring to remedy all these ills. A very great part of the health budget had, in particular, been devoted to the remuneration of the doctors attached to the refugees.

The difficulties to which he had just drawn attention partly explained why the Commission of the League of Nations had been struck, on its arrival in Greece, by certain regrettable aspects of the health situation. It had condemned them with some severity, particularly the hospitals. At Athens, however, a hospital which, in 1922, had had 200 patients now attended to 1,200, and the number of inmates of the mental asylum had increased from 160 to 1,000.

By what miracle would it have been possible for the Greek Government, which had had to meet so many urgent requests, to build all the necessary institutions? Though certain special hospitals which were able to take only the number of patients which they considered advisable had, thanks to that fact, been able to ensure the perfect working of their services, the same was not the case with the Government hospitals and asylums, which were open to everyone.

Those factors should be taken into account when the Greek health organisation was compared with that of neighbouring countries, particularly with Yugoslavia, where remarkable results had been obtained.

When he came into power, M. Venizelos had been struck by the deficiencies in the Greek health organisation. He had appealed to the Health Organisation of the League of Nations, which had immediately placed itself at the disposal of the Greek Government. Dr. Pappas wished to thank the members of the Commission who had visited Greece and to express the gratitude of the Greek nation for the considerable work which had been accomplished.

As a result of the enquiry, a programme of health reorganisation had been drawn up, on which the Greek Government was at present basing its health policy. The report of the Medical Director explained what portions of that programme had been achieved up to the present.

In addition to that programme, the Health Ministry was also considering the following questions, which called for urgent measures :

(1) *Malaria*. — A Malaria Council had been set up, which was presided over by the Director-General of the Ministry for Finance and included the Directors of all the Ministries whose action might influence the solution of malaria problems. That Council had at its disposal a budget of 24,000,000 drachmas specially set aside for the anti-malaria campaign, and any decision it might take was immediately put into practice, owing to the position of the members of the Council. Thus, for example, when the question of establishing the spleen index in schools had been raised, the Director of the Ministry of Public Education had been able immediately to give the necessary instructions. Thanks to him also, practical courses for teachers and pupils had been organised.

A certain number of principal centres and travelling units had been instituted. The doctors in charge were given a special training of four and a half months, three of which were devoted to theoretical instruction and laboratory work and one and a half to field work. Each doctor had three assistants, who had had two months' training.

Dr. Pappas hoped that, in a few months' time, sufficient documentation would be available for the publication of a first report on this matter. By way of example, he would point out that, in Epirus, where there was a centre and five travelling units, 21,000 patients had been examined, 600,000 doses of quinine distributed and 7,400 injections made. In fifty-one villages the work of sanitary installation had been carried out by means of labour and money provided by the villages themselves.

One of the most remarkable results was the interest of the population in everything connected with the campaign against malaria. With rare exceptions, all the mayors and heads of the communes had promised funds and days of work for the continuation of this campaign.

(2) *Tuberculosis*. — The Ministry of Health would put into operation during the present year a plan of campaign against that disease by means of anti-tuberculosis dispensaries and hospital sanatoria in the outskirts of the towns. Professor Léon Bernard had approved the plan, and good results were anticipated.

(3) *Rabies*. — Four new anti-rabies centres had been instituted.

(4) *Venereal diseases*. — Three "teams" were travelling in Macedonia and Epirus in connection with the campaign against venereal diseases.

Dr. Pappas did not wish to enumerate all the other activities of lesser importance which the Greek Government had undertaken outside its programme. He wished simply to emphasise the fact that, as the various parts of that programme were introduced by degrees into the Greek provinces, the campaign against diseases would become an integral part of the activity of the health centres. Thus, the administration would be simplified and the cost reduced to a minimum.

With regard to the very important problem of hospitals, it could be hoped that, in three or four years, the situation would be relatively satisfactory, thanks, above all, to private donations.

Dr. Pappas would be glad if the secretary of the Malaria Commission could make a tour in Greece to see the results obtained.

In conclusion, Dr. Pappas, who had directed the Ministry of Health for a year, was aware that the ignorance of the population was one of the principal causes of the unsatisfactory sanitary conditions noted in the country. Sanitary corps had visited 4,000 houses in Athens and 3,000 in the Piræus. They had noted the good will of everyone, especially of the women, but also their absolute ignorance of the measures which should be taken. The advice given was nearly always followed.

Dr. Pappas thought that the existing books on health devoted too large a part to anatomy, physiology, histology, pathology, etc., and too inadequate a part to health, properly so called. He would also venture to suggest that the Health Committee, on whose programme was health propaganda, should take the initiative in organising an international competition for books on health for use in primary and secondary schools, and also for the use of school-teachers. It might also be recommended that all school-teachers should be compelled to attend special courses in schools of hygiene for at least three months, or, if that were not possible, in the medical schools.

Dr. Pappas wished once again to express the gratitude of the Greek nation to the League of Nations, which, on Dr. Nansen's proposal, had given the necessary support to the issue of the special refugee loan; to the Health Committee, which had seconded all the Greek Government's efforts at health reorganisation, and, in particular, to the Medical Director.

The PRESIDENT thanked Dr. Pappas for having come himself to explain the health situation in Greece to the Health Committee. The Committee congratulated him on the efforts made and the results already obtained.

The Committee noted with satisfaction that the Greek Government was carrying out the programme drawn up, of which the Athens centre, the School of Hygiene, and the technical services of the Ministry of Health were the fundamental points. It was also satisfactory to note that the Greek Government was on the way towards the unification of the Greek health administration.

The Committee could certainly accept Dr. Pappas's invitation to the Secretary of the Malaria Commission to visit Greece. With regard to the suggestions relating to instruction to pupils and school-teachers, the President proposed to submit them for examination to the next conference of directors of schools of hygiene.

Professor Léon BERNARD had been privileged to be a member of the Commission which had visited Greece, and, as Chairman of the Commission on the Teaching of Hygiene, he had been concerned with the establishment of the Athens centre.

He wished to refer to one of Dr. Pappas's remarks in regard to the severity of the opinions expressed by the Commission. It seemed that the views of that Commission had been reproduced in the Greek Press in a somewhat distorted manner. The Commission would have shown very little intelligence if it had not understood the reasons for the lamentable situation to which Dr. Pappas had called attention. The only feeling which could have been inspired by that situation was one of profound admiration for the Greek Government and authorities. The Greek efforts in the presence of a case without precedent had been superhuman, and would always do honour to that country, which possessed so glorious a past.

The programme which had been drawn up had been the result of the discussions of the whole Commission. It was on the way to being realised, thanks to the collaboration of the Greek Government. That collaboration should continue, as well as with scientific authorities in the country.

Professor Léon Bernard reminded the Committee that a programme for the School of Hygiene at Athens had been drawn up by Dr. Norman White (Annex 8), and that M. Pallis had prepared a report on the application of the programme for the reorganisation of the Greek public health services (Annex 9). The Health Committee would doubtless wish to congratulate and thank M. Pallis and Dr. Norman White.

Dr. RAJCHMAN wished personally to thank Dr. Pappas for his words of congratulation. The services of the Health Section would always be at the disposal of the Greek Government.

#### V. TECHNICAL SECRETARIAT OF COMMISSIONS.

Dr. RAJCHMAN made the following observations :

##### 1. *Malaria Commission.*

Reserved (see eighth meeting).

##### 2. *Leprosy Commission.*

Reserved (see ninth meeting).

##### 3. *Joint Commission on Public Health and Health Insurance.*

Referring to the question of tuberculosis and BCG, Sir George BUCHANAN pointed out that it had been understood that the documentation collected would be analysed by the Health Section. He would be glad to know the position.

Professor Léon BERNARD replied that no new arrangements had been made, and that the present state of the question was not such that a new report should be issued.

He pointed out, however, that the question had been studied thoroughly at the seventh conference of the International Union against Tuberculosis, held at Oslo from August 12th to 15th, 1930, and that a statement had been drawn up on this matter (Annex 10).

Professor Léon Bernard was at the disposal of any member who wished to put additional questions.

##### 4. *Commission of Health Experts on Infant Welfare.*

###### A. *Infant Mortality.*

The Health Committee would hear a statement by Professor Debré (see seventh meeting).

###### B. *Researches on Diphtheria and Scarlet Fever.*

No observations.

##### 5. *Permanent Commission on the Standardisation of Sera, Serological Reactions and Biological Products.*

The PRESIDENT pointed out that a conference of experts was proposed for the following year.

Dr. CARRIÈRE informed the Committee of a suggestion made to him by the Basle Medical Society in regard to vitamins. In Switzerland, the vitamin content of a food product could only be indicated on the basis of a certificate of analysis from an authorised laboratory. On the other hand, no such regulations existed in the case of medicaments. Dr. Carrière asked, on behalf of this medical society, whether the Standardisation Commission could not deal with this question, and, in particular, with the standardisation of methods of control.



Referring to the conference of experts announced by the President, Sir George BUCHANAN believed he was right in saying that the British authorities would be very glad if that conference could be held in London, and would offer all the necessary facilities. The question of vitamins could be examined then.

Dr. JITTA supported Dr. Carrière's suggestion, and hoped that the Health Committee would study the question.

A very large number of products said to contain vitamins and irradiated products was sold in Holland. A distinction should be drawn between the really efficacious products and others.

Dr. LUTRARIO supported the proposal of Dr. Carrière and Dr. Jitta. Very close attention was given in Italy to the question of vitamins, and he hoped that that country would be invited to take part in the discussions which might eventually take place on this matter.

Professor LÉON BERNARD pointed out that, in 1928, he made a proposal concerning nutrition and vitamins which came within the scope of the question examined by the Committee. The Health Section had probably collected documentation on the matter.

With regard to irradiated substances, Professor Léon Bernard thought it unquestionable that therapeutic progress had been made. It was rather difficult, however, to know exactly where charlatanism began, as it had developed concurrently with sound medicine.

The PRESIDENT said that the Health Committee had already dealt effectively with the question. The difficulty was to establish sure scientific methods and to draw up standards.

The President had discussed the matter with experts, and a small conference had been contemplated. It would be unable to meet during the present year, but would doubtless do so in 1931.

It was obvious that the Health Committee could not recommend the adoption of a method whose efficacy might later be denied. In all countries there were a great number of investigators who were dealing with the question, but only a very small number was likely to contribute to the introduction of methods of determining the standard and to the standardisation of the measures to be taken.

Dr. CARRIÈRE thanked the President for his explanations. He congratulated him on having raised this question of vitamins. It was hardly reasonable to require manufacturers to produce a certificate of analysis when it was not known whether a sure method of analysis existed. Dr. Carrière hoped that one day such a method would be found.

With regard to irradiated products, control was essential in view of their danger.

Professor BORDET asked Dr. Carrière whether there was any regulation in Switzerland in regard to vaccines in which charlatanism played so important a part.

Dr. CARRIÈRE replied that, at present, bacteriological control was only exercised in Switzerland for anti-diphtheritic, anti-tetanic, anti-dysenteric and anti-meningococcic sera. The work of unifying twenty-five different cantonal legislations had only just started.

Sir George BUCHANAN pointed out that, in view of the present state of knowledge, which did not make it possible to say what were the minima and maxima quantities of vitamins necessary to persons of different ages, the determination of the vitamin content of the various food products was not at present of first importance from the point of view of public health, though it might be very desirable for the prevention of misdescription and commercial fraud.

Dr. JITTA thought that an enquiry was nevertheless necessary, in order that a distinction might be made between the real, the false and the dangerous vitamin and irradiated products. The service of which Dr. Jitta was director in the Netherlands had to see that the Dutch law on vaccines was applied, and an international understanding would undoubtedly be of very great service to it.

Dr. HAMEL wished to make two observations. In the first place, he felt that the Committee should concern itself with the protection of the public against the ideas propagated in regard to vitamins. On the other hand, so far as the appropriate measures for determining the vitamin content were concerned, he would point out that, in Germany, the great dyeing industries, which had remarkably well-equipped laboratories, had studied the question and were about to introduce simple methods of testing by means of colour tests.

Dr. CHODZKO wished to support Dr. Hamel's last observation. Investigations had been made at Warsaw and certain methods had been defined.

He proposed to submit a short communication on this matter at the next session.

Dr. RAJCHMAN pointed out with regard to the documentation collected by the Health Section that a first list of references was given in the Medical Director's last report. The list of communications received since then had not been distributed, for the technical reasons indicated by the President. In view, however, of the obvious interest of the members of the committee, a short note would be distributed.

The PRESIDENT pointed out that the technical conference which would be held in London would be composed of a small group of experts presided over by an expert. It would therefore be a purely scientific meeting, and the results would be communicated to the Health Committee.

With regard to the methods to which Dr. Hamel and Dr. Chodzko had called attention, the experts would say whether they could be considered as sufficiently sure. If their conclusion was in the negative, that decision also would be of value. It was, however, essential that the experts should be of worldwide reputation and authority.

Irradiated products would also be studied by the Conference.

#### *Determination of Blood Groups.*

The PRESIDENT would not enter into the details of the work of the Laboratory Conference held at the Pasteur Institute in July 1930. He wished, however, to draw the Committee's attention to the fact that that Conference had emphasised the necessity for using the Health Committee's nomenclature.

He urged the members of the Health Committee to make known the danger of the confusion which might arise from the use of other nomenclatures, which had caused deaths. He also pointed out the importance of the question from the legal point of view and from the point of view of legal medicine.

He felt that it would be desirable to approach the editors of scientific journals and to recommend them to see that only the nomenclature of the Health Committee was used.

Professor Léon BERNARD suggested that in countries with an official and scientific body such as the Academy of Medicine of Paris, this body should be asked to approach the editors of publications.

The PRESIDENT invited the members of the Committee to indicate the methods which seemed to them best adapted to their respective countries.

Professor PITTALUGA thought that the personal action of the members of the Health Committee was of the greatest importance, official steps having already been taken.

He pointed out that anthropologists were also concerned. They also should be urged to use the nomenclature recommended.

Dr. RAJCHMAN pointed out that it would be very difficult to bring the Health Committee's recommendations to the knowledge of the persons concerned, especially in view of the internal administration of the Health Section. It would mean considerable work, and an official would have to be specially detailed for the purpose. The question was under consideration, and Dr. Rajchman hoped it would be possible to organise a service to meet the needs of the case. The members of the Health Committee would benefit from this organisation, which would keep them better informed of the work in progress.

It was particularly important, however, that the scientific societies should take note of the Committee's recommendations, and Dr. Rajchman would be grateful to the members of the Committee if they would make suggestions as to the methods which they considered most likely to lead to that result in their respective countries.

Professor BORDET asked whether there were not official institutions in certain countries which kept standard sera.

The PRESIDENT replied that that question was being studied.

#### *6. Commission of Experts on Syphilis and Cognate Subjects.*

##### *A. Enquiry into the Treatment of Syphilis.*

No observations.

##### *B. Sero-diagnosis of Syphilis.*

The PRESIDENT pointed out that a note on the Laboratory work on the serodiagnosis of syphilis carried out at Copenhagen on August 4th and 5th, 1930, had been distributed to the members of the Committee (Annex II). The same difficulty arose in this case as in regard to the blood groups. The recommendations were not always observed.

At Copenhagen, Professor Jadassohn and he had urged the importance of the observance of those recommendations, particularly with regard to sailors.

Dr. RAJCHMAN thought that, in the case of the sero-diagnosis of syphilis, the question of the publicity to be given to recommendations was well advanced.

He believed it would be interesting if the results obtained could be explained by lecturers, and he hoped that efforts would be made during the year to find in Europe persons who would give lectures in the scientific circles concerned. A film taken during the meeting of the Second Copenhagen Conference could be used to illustrate the lectures.

Dr. Rajchman would bring the matter before the Bureau.

7. *Commission on the Teaching of Hygiene and Preventive Medicine.*

A. *Paris and Dresden Meetings (May 20th to 22nd and July 14th to 18th, 1930).*

Professor LÉON BERNARD had very little to add to the information already distributed. The voluminous dossier which had been distributed contained a memorandum by Professor Prausnitz on the meetings of Directors of Schools of Hygiene at Paris and Dresden and a note by Professor Léon Bernard on the activity of the Commission on Education in Hygiene and Preventive Medicine. It had not advertised itself, but had done fruitful work; and now, when it was about to disappear, Professor Léon Bernard wished to draw attention to some of the results obtained.

The question of the training of hygienists had claimed special attention, and it was considered that the meetings of Directors of Schools of Hygiene were the best instrument of work.

Propaganda and popular education were questions for the national schools of hygiene, and the latter might one day deal with them.

A programme had been drawn up and was explained in the report of Professor Prausnitz, whom the Health Committee thanked.

Dr. TSURUMI wished to congratulate all the members of the meetings of Directors of Schools of Hygiene. They had greatly contributed to progress in the solution of the problems connected with the teaching of hygiene and preventive medicine.

Dr. Tsurumi emphasised the importance of the part which this teaching should play in modern life. He thought that the time had come to take energetic measures to develop that teaching. The proposal of the French Government for the creation at Paris of an international centre for advanced health studies proved that the importance of the question was becoming more widely recognised.

Dr. Tsurumi thought that a similar centre should be created in every civilised country. At present, however, there were only four really qualified schools of hygiene in Europe, and only two in America. For that reason, the Health Committee might decide to forward to the Governments the resolutions and recommendations of the two meetings of directors, drawing attention to their value from the point of view of the public health.

Dr. Tsurumi intended to submit a definite proposal to the Committee with regard to the teaching of hygiene to medical students and collaboration between the faculties of medicine and the schools of hygiene.

Professor PITTALUGA pointed out that he had drawn up a report on the constitution of the School of Health at Madrid (document C.H.919). As the last comer among the Directors of Schools of Hygiene, he had benefited from the result of the discussions at Paris and Dresden, and on that basis he had endeavoured, within the possibilities, to organise the Madrid School.

Professor FITZGERALD congratulated Professor Léon Bernard and his colleagues on their work. He asked the Committee to be good enough, when he himself was prevented from carrying out his duties as Chairman of a Conference of Directors of Schools of Hygiene, to request Professor Léon Bernard to carry out those duties.

He pointed out that an effort had been made for several years in the United States and in Canada to develop the teaching of hygiene and preventive medicine in the medical schools. Professor Fitzgerald had arranged with the University of Toronto that all medical students would be required to follow a course of hygiene and preventive medicine before completing their studies. Between their fifth and sixth years they had to spend from three to four weeks in a sanitary institution. Already results appeared to have been obtained, not only in the training of doctors, but also from the point of view of public health.

Dr. CHODZKO wished to support Dr. Tsurumi's suggestion that the recommendations of the Dresden and Paris meetings should be communicated to the various Governments. The Governments were not altogether aware of the importance of the teaching of hygiene, and it was difficult to obtain adequate funds from them.

With reference to Professor Fitzgerald's remarks, he pointed out that he himself had submitted a report on the teaching of hygiene in Poland, where methods similar to those adopted in Canada had been applied very successfully.

He regretted that so many of the reports submitted to the Health Committee could not be published.

Professor LÉON BERNARD wished to retain only the recommendation expressed in Dr. Tsurumi's proposal. With regard to the procedure to be adopted, he thought that the Medical Director should be left completely free.

Professors of hygiene should also be approached for he had been convinced at Warsaw, Budapest and Zagreb of the very different part played by a Chair of Hygiene and a School of Hygiene.

The members of the Health Committee were agreed as to the object to attain. It was now necessary to convince the persons concerned of the need for creating schools of hygiene in countries in which they did not exist.

Professor Léon Bernard thought that the importance of the Dresden meeting had very rightly been emphasised. It had profited by the work of the Conference which preceded it, as well as from the visit to the exhibition and museum. He wished to thank the authorities of Germany and Saxony, who had greatly facilitated this valuable visit, and particularly, his colleague, Dr. Hamel.

He also thanked Professor Fitzgerald for the request he had addressed to the Health Committee in regard to the Chairmanship of the conferences of Directors of Schools of Hygiene, and said that he would be entirely at his disposal to second him in his task. He hoped, however, that a conference would one day be organised at Toronto, which, from the point of view of the teaching and organisation of hygiene, was one of the most suggestive centres in the world.

He wished, finally, to say that, as Chairman of the Commission on the Teaching of Hygiene, he had not thought fit at the time to ask for the printing of the report to which Dr. Chodzko had referred. He also regretted that all reports of that nature, since they were not published, could not be better known.

Professor PITTALUGA hoped that the next meeting of Directors of Schools of Hygiene would be held in Madrid at the time of the inauguration of the school of health. The members of the meeting could study the intellectual and other relations between that school and the university city.

Dr. RAJCHMAN thought that, so far as Dr. Tsurumi's proposal was concerned, the best procedure would be to forward the report of the Dresden meeting to the health administrations. That would be equivalent to sending recommendations, and it would be difficult for him to go further. The Committee would be glad to accept Professor Pittaluga's invitation.

B. *Report by Professor Miyajima on the Methods of attracting to the Schools of Hygiene the Students best qualified for Public Health Work.*

Dr. RAJCHMAN thought that this question should be placed on the agenda of a session of the Committee in the near future in order that it might be more closely examined.

A preliminary study and the collection of documentation were necessary. The Secretariat would send a special note on the question to the members of the Committee.

8. *Opium Commission.*

No observations.

VI. POSITION OF STUDIES AND ENQUIRIES.

I. *Welfare of the Blind.*

Dr. JITTA pointed out that he had submitted to the Ophthalmological Congress a summary of the report prepared by the Health Section.

He had been invited to attend the Brussels Conference, which would be held on October 10th next, and asked whether this was in his personal capacity or as a representative of the Health Committee.

The PRESIDENT asked him to be good enough to represent the Health Committee.

Sir George BUCHANAN would be glad if it could be recognised that collaboration between the International League for the Blind and the various technical organs of the League of Nations was contemplated. It had been suggested at the Fourth Committee and at the Assembly that, while it was impossible for the League of Nations to undertake the control of all international work for the welfare of the blind, the technical organisations, each in its own sphere, could do much to aid voluntary international effort, particularly at the Congress which it was proposed to hold in 1932. If, for example, organisations like the Health Organisation of the League of Nations could continue the work begun by its handbook and place this documentation at the disposal of the Conference, the work of the latter would be simplified. He hoped that Dr. Jitta would be authorised to say that the Health Committee was ready to give its support to voluntary international co-operation in this kind of way.

2. *Report on the Question of Trachoma.*

Dr. LUTRARIO stated that the International Anti-Trachoma League had held its first meeting in Geneva at the end of July 1930. Its statutes had been drawn up and an Executive Committee appointed, under the chairmanship of Professor Emile de Grosz, of Budapest. Dr. Jitta and Dr. Lutrario had been nominated to attend the meeting as observers, but Dr. Jitta had unfortunately been unable to come to Geneva at that date.

Dr. Lutrario emphasised the zeal and high competence with which the Chairman, Professor de Grosz, had carried out the task of directing the work of the Congress, at which the most eminent figures in the ophthalmological world had assembled. The International Anti-Trachoma Organisation appeared to have commenced its lofty mission under the best auspices. Dr. Lutrario had presented a report, in which the Committee would find full details of this interesting meeting. He would request the Committee to allow Dr. Jitta and himself to assist as observers, in the work of the League's Executive Committee, thus meeting the wish warmly expressed by all the members present at the Congress. For that occasion the Health Section report had been printed and had been very well received.

3. *Question of Alcoholism.*

Dr. CHODZKO informed the Committee that there had been a meeting between the delegates of the health administrations of Finland, Poland and Sweden, who had reached agreement and would submit a report to the Committee.

4. *Physical Education.*

No observations.

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SEVENTH MEETING.

*Held on Saturday, October 4th, 1930, at 10 a.m.*

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*President: Dr. Th. MADSEN.*

**477. Collaboration with the National Government of the Republic of China: Reorganisation of Port Health Services.**

Dr. LUTRARIO said that the study of the voluminous report submitted on the inspection of the Chinese ports and the reorganisation of their health services had been made easy by the remarkably clear and ordered manner in which it was drawn up. He wished to congratulate the writer of the report, Dr. Park.

That report contained a general part which described the structure of the central and local organisations of the quarantine services in China. The second part began by defining what should be a typical organisation and then submitted special considerations relating to the various ports.

Dr. Lutrario read the report of the Commission (Annex 13).

He emphasised the necessity for conferring with the experts appointed by the Communications and Transit Organisation.

The PRESIDENT thanked Dr. Lutrario and congratulated Dr. Park.

Sir George BUCHANAN asked what procedure would be followed at the meeting to be held in Paris with representatives appointed by the Communications and Transit Organisation.

Dr. RAJCHMAN replied that, in order that the scheme for reorganisation might be forwarded as soon as possible to the Chinese Government, it would be desirable for the Health Committee to consider as adopted in advance the decisions which would be taken at Paris.

The whole report, moreover, would be examined with the representatives of the Transit Organisation.

In reply to another question by Sir George Buchanan, Dr. Rajchman stated that it was very important that the measures recommended should be applied as soon as possible, and that the Commission for the Reorganisation of Quarantine Services in Chinese Ports should be able to obtain from the Bureau all the additional information necessary.

*The conclusions of the report were adopted.*

**478. Report by Professor Debré on the Lima Conference on Infant Mortality and the Mission to Latin America.**

In presenting his report [document C.H.908(1)], Professor DEBRÉ said that the members of the Mission, Professor Olsen, M. Nogueira and himself, had been received with special attention, and had felt very strongly the great desire of the Latin-American countries to collaborate with the Health Organisation. That desire was particularly strong in Uruguay.

After an exchange of observations, the PRESIDENT thanked and congratulated Professor Debré, Professor Olsen and M. Nogueira on behalf of the Health Committee. The work they had accomplished was very important, and there was no doubt that they had proved excellent propagandists of the ideas of the Health Committee of the League of Nations in the South-American countries. The fact that those countries relied on the Health Organisation, and had appealed to it, laid on it a great responsibility, but also encouraged it by showing that its action was recognised and appreciated.

Professor Debré's testimony was also encouraging in so far as the efforts accomplished by the South-American health organisations were concerned. During the tour which they had made, the President and Dr. Rajchman had noted the goodwill of those organisations.

The PRESIDENT concluded the discussion by proposing that the Health Committee should ask the Medical Director, together with the Bureau, to decide, on the basis of the information reported by the mission, what were the exact points in regard to which the useful collaboration of the Health Organisation would be possible.

*The proposal was adopted.*

#### 479. Budapest Conference on Rural Health Centres.

Dr. CHODZKO pointed out that the Committee had asked him to make a proposal with regard to the appointment of the experts to be invited to take part in the Conference which would meet at Budapest on October 27th, 1930. In agreement with the Medical Director, he submitted the following list :

Dr. STAMPAR (or, if his duties prevented him from attending the Conference, the Director of one of the Institutes of Hygiene in Yugoslavia, to be appointed with his approval) ;

Dr. SEIFFERT, of Munich ;  
Dr. PELC, of Prague ;  
Professor PARISOT, of Nancy ;  
Dr. KACPRZAK, of Warsaw ;  
Dr. JOHAN, of Budapest ;  
Dr. TUNTNER, of Gröningen, Netherlands ;  
Dr. METZ, of Denmark.

An English expert had still to be appointed. Dr. Chodzko asked the Committee to authorise him to take a decision in that connection with the help of the Medical Director and Sir George Buchanan.

Professor Pittaluga had also asked that a professor from the new School at Madrid should be appointed. The Committee would doubtless have great satisfaction in agreeing to this request. Dr. Chodzko wished to reserve the possibility of proposing one or two additional names before the end of the session.

It would be desirable at Budapest to have the opinion of sanitary engineers connected with health centres. He therefore proposed to invite, in an advisory capacity, two of those engineers, M. PETRIK, of Zagreb, and M. WRIGHT, of Athens.

Dr. SCHOLTZ, Secretary of State for Health in Hungary, and Miss STETLER, Head of the Nursing Service of the Institute of Hygiene at Budapest, would attend the Conference.

Certain questions connected with the protection of newly born babies would be studied with the help of Dr. DE BOKAY, who was Director of the "Stefania" Organisation for the Protection of Children.

*The Health Committee approved these appointments.*

#### 480. International Reciprocity in the Care of the Sick.

Submitting the report of the Sub-Commission entrusted with this study (Annex 16), M. VELGHE pointed out that the Assembly had forwarded to the Health Committee for consideration the proposal of the Hungarian Government in regard to international reciprocity in the care of the sick (document A.24.1930,III). The Sub-Commission to which this had been referred by the Health Committee had considered a statement by Dr. Kádár, the Hungarian delegate to the Assembly, which was summarised in the following proposals :

1. It was desirable that there should be international reciprocity in the care of the sick and in regard to women in childbirth (the latter being assimilated to the former), and, consequently, that foreigners should be assimilated to nationals, so far as the right to public assistance was concerned.
2. The country in which the foreigner fell ill should be responsible for bearing the cost of temporary assistance for a period of not longer than sixty days.
3. The cost of final assistance should be borne by the country of which the sick person was a national. That country would, however, be expected to agree to the repatriation of the patient if the latter could be moved.
4. A general Convention on the basis of the model of the Convention between Hungary and Bulgaria would be drawn up. This Convention could be signed by all the States prepared to guarantee to foreigners who fell ill treatment equal to that of the nationals of the country of residence.

M. Velghe pointed out that this proposal was of considerable humanitarian importance, but raised complicated problems in view of the inequality of the burdens involved. That difficulty had often led to the postponement of the conclusion of bilateral agreements. This had determined the Hungarian Government to suggest the drawing up of a general Convention.

The Sub-Commission did not feel it could take a decision on the principle of the question. It raised problems which concerned, not only health, but also public assistance and financial considerations. At the same time, in view of the generous spirit of the proposal, the Sub-Commission did not wish to reject it at once.

As the health of a very great number of sick persons was concerned, the Sub-Commission suggested that documentation which could be studied at the Committee's next session should be collected.

Dr. JITTA admired the spirit which had inspired the Hungarian proposal and the way in which the Sub-Commission had explained the position. He had no objection to the proposed enquiry, since the Health Committee had been asked by the Council to study the question.

As M. Velghe had pointed out, the proposal raised problems connected with public welfare, and it would be necessary to discover the attitude of the different countries towards sick foreigners. In the Netherlands, they always received attention, even if the expenses could not be reimbursed by the State of which they were nationals.

Dr. CARRIÈRE said that, having already had wind of the Hungarian proposal, he had asked whether the question was really within the competence of the Health Committee. He understood the sentiments which had led the Sub-Commission to desire not to reject the proposal at once, however, and thought that the Committee should not object to have the proposed enquiry set on foot.

At the same time, Dr. Carrière thought that bilateral Conventions would perhaps be preferable, in view of the very great differences in the reciprocal relations of the various countries in regard to the question under consideration.

Dr. RAJCHMAN pointed out to those members who had attended the discussions in the Second Committee of the Assembly that doubt had been expressed as to the acceptance of the proposal by the Assembly, and that it had been suggested, in the first place, that it should be submitted to the Health Committee for examination. Though, however, certain delegates, and in particular the Chairman, had been doubtful, others had desired that a closer enquiry should be made.

It seemed, therefore, that the measures proposed by M. Velghe met the situation very well. A member of the Legal Section of the Secretariat would collaborate in the study which would be undertaken, and the Health Committee could come to a decision at its next session.

Dr. Rajchman wished, however, to point out that the Second Committee and the Assembly had referred the proposal to the Health Committee, not only for study, but also for a report. If, therefore, the Health Committee approved the proposal in principle, it should contemplate a study which would enable it to determine the position of the question.

Sir George BUCHANAN said that, if the subject was to be referred at the next session to the same Sub-Commission, its members should be documented well in advance. The matter at issue was not so much medical as legal and political, and the members could not give useful advice without previous consultation with competent authorities in their countries.

M. VELGHE observed that, in fact, the Health Committee had to decide whether an international convention was or was not preferable to bilateral conventions. When the advantages and disadvantages of the two systems had been studied, the results would be submitted to the Health Committee, which should come to a decision.

*The Committee approved the conclusions of the Sub-Commission's report.*

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## EIGHTH MEETING.

*Held on Monday, October 6th, 1930, at 10 a.m.*

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*President: Dr. Th. MADSEN.*

### **481. Disaster of the Airship R.101 : Sympathy expressed by the Committee.**

The PRESIDENT wished to express to the British members of the Committee the deep emotion which it felt at the announcement of the disaster of the airship R.101.

Sir George BUCHANAN thanked the President and stated that his countrymen were much touched by the extent to which this disaster was felt throughout the world.

### **482. Report of the Malaria Commission.**

Dr. LUTRARIO wished, before presenting the Commission's report, to recall that the Second International Congress on Malaria had been held at Algiers in May last, and that the Health Organisation's Malaria Commission had held a session in Algiers at the same time. The Congress had coincided with the fiftieth anniversary of Laveran, and the Commission's session had occurred at the termination of its seventh year of existence.

The Algiers Congress was an undoubted success; twenty-one Governments and thirty institutions were represented, including the League of Nations, ten university faculties, four schools of tropical medicine, the Rockefeller Foundation, the International Red Cross Society, etc.

The delegation from the Health Organisation consisted of Dr. Lutrario (Chairman), Professor Schüffner and Professor Ciuca.

This delegation, as well as other members of the Malaria Commission who attended, had received the kindest welcome, and Dr. Lutrario wished to express his gratitude to the Governor-General (M. Bordes), to the bureau of the Congress, of which Professor Marchoux was general President, and to Dr. Raynaud.

For three days the Congress had heard various communications on different malaria problems, as well as some speeches—one by Professor Schüffner on the tour in India and another by Dr. Lutrario concerning the Malaria Commission. Several excursions were made,

the first to Mitija, a once unhealthy district now made salubrious and converted into a flourishing orchard; a visit to Constantine for the inauguration of a monument to the memory of Laveran in the village which bore his name; and a visit to Timgad (the former Roman town of Tamugadi) on the edge of the desert. The final day was spent in visiting Biskra, an interesting health resort in the midst of the oasis of that name, where the desert began.

Twenty-five persons, including members and others invited, had taken part in the work of the Malaria Commission. Dr. Lutrario took the opportunity of emphasising the importance of the seven-year period which the session was terminating. This period had comprised three phases of the Commission's existence, and the extent and importance of the contribution which it had made in all fields of malaria study should be acknowledged. In the work of a permanent body of this kind it was well at times, when a period terminated, to halt and look back upon the distance covered and the results obtained. Dr. Lutrario, without making an actual proposal to this effect, considered that a recapitulatory report upon the whole work of the Commission would represent a remarkable contribution to the solution of various malaria problems, and would further render a well-deserved tribute to the Commission.

The Algiers session had resulted in a series of resolutions which the Commission had just re-examined, and on this basis the Commission had drawn up a programme of work which formed the subject of the report which Dr. Lutrario was presenting (Annex 14).

Items 2, 3 and 4 of the programme related to *treatment* which the Commission had always considered as the basis of anti-malaria work. The high price of quinine was an obstacle, and it was therefore necessary to employ the other alkaloids of quinquina. Searching investigations into the use of secondary alkaloids and quinetum made for the Health Committee in five countries (Roumania, Yugoslavia, Italy, Algeria and Spain) had produced very interesting results of a purely therapeutic nature, and it seemed advisable to take up other aspects of the problem (botanical, chemical, pharmacological and economic).

One of these problems—that of scarcity—was most disquieting; it was known, from the investigation carried out that the total quantity of quinine available in the world amounted to 600 tons annually. Even if it were possible to double this quantity by totally employing secondary alkaloids, the estimated needs for treatment would still not be met, for the number of malaria sufferers reached a figure of hundreds of millions. Further, a paradoxical situation existed, to which the Kina Bureau had drawn attention—that of the under-consumption of quinine. At the present time, according to cinchona-growers, only half the quantity of bark available (amounting in all to 12,000 tons) was being made use of.

This situation induced the Commission to present suggestions to the following effect:

(a) Necessity of consulting pharmacological experts and chemists on questions relating to the preparation and standardisation of quinetum, on methods of control of this product and on other aspects of the problem in the agricultural, technical and economic field;

(b) Necessity for ascertaining, at least approximately, the world's quinine requirements;

(c) Timeliness of a conference of countries concerned, with a view to finding suitable solutions.

(d) Timeliness of discussing matters with quinine-growers, as proposed by the Kina Bureau, through the offices of a member of the Health Committee to be nominated by the Committee, and of the Secretary of the Malaria Commission.

Another question in the report required explanation, that of the deltas.

Professor Pittaluga had acquainted the Commission with the work achieved by his collaborators and himself, which had rounded off the work of the health service of the Elbe Trades and Hydrographic Confederation. The investigations carried out by Professor Cantacuzène and Professor Zotta in the Danube delta had been the subject of a report and an interesting paper at Algiers. Important work had also been done in the Pô delta.

All these investigations, carried out along uniform lines adopted beforehand, had led to results which had still to be compared and co-ordinated. Hence the proposal to hold a meeting in the spring.

The Rhine delta work, and that in the Ganges delta, must not be overlooked. The latter delta extended over more than 300 square kilometres and exhibited very curious phenomena—the malaria in the central and more elevated region being denser and more serious, while it was practically non-existent in the surrounding lower areas, which were flooded by the river spate.

In conclusion, Dr. Lutrario stated that he had prepared two further volumes of records on the various malaria questions, in continuance of the three he had already put at the disposal of the Commission. He believed that all this bibliography might be useful, as it included particulars of some works not yet published.

The PRESIDENT wished to pay a tribute to the most interesting and fruitful work of the Malaria Commission. The Committee was very grateful to the Governor-General of Algiers, to Professor Marchoux and Professor Sergent, and particularly so to Dr. Raynaud, for all the assistance accorded to the Commission during its Algiers meeting.



He would also express to Dr. Lutrario the Committee's real appreciation of the zeal, and competence with which he had so tirelessly devoted to the work of the Commission since it began.

Dr. RAYNAUD thanked the President. He stated that he had been entrusted with the direction of anti-malaria work in Algiers, where it should now enter the realm of practical realisation.

The budget allotted for his use had increased from 400,000 French francs to 1,000,000 French francs, and Dr. Raynaud had proposed that it should be increased to 2,000,000 francs. He had obtained a large credit for the first section of the work of sanitary reform and would be glad if, in a year or two, he could show the members of the Malaria Commission the results of the work.

Professor PITTALUGA wished to tell Dr. Lutrario how greatly the Malaria Commission appreciated the way in which he had directed its work.

Sir George BUCHANAN considered that few branches of the Health Committee's activity had attracted more attention and obtained so many interesting results as the Malaria Commission, whose work had been constantly referred to during the recent discussions of the Assembly and its Fourth Committee.

The summarising report made by the Commission two years ago on malaria measures in Europe marked the end of a definite and most useful stage of its work, and success in the achievement of those objects which had initially been marked out for it when the establishment of the Commission was urged by Colonel S. P. James. The Commission had followed these indications and had considered the post-war situation in Europe in regard to the many regions for which the prevention of malaria is of the first importance. It had shown how progress could be made and was being made by adopting methods which it was within the capacity of the different countries to undertake, even though their resources were strictly limited. It was a case where the best had been the enemy of the good—where improvements which were quite possible were being checked by the obsession that nothing could be done save by intensive and costly antilarval measures. The result of the Commission's European work had not been to lay down any international doctrine for the prevention of malaria; it had been to show how a particular country or its administration could help itself.

Since then, the Commission had undertaken various activities in other directions, one of which had been the study tour in India. The presentation of the results of that tour at the present session had demonstrated its importance, and he hoped that the subject would remain open until the next session, when General Graham would be able to attend and give his views about it. It would probably be premature, in any case, to say much now about the results of the mission, and it would be better for the Committee to review them in a few years' time in the light of further Indian experience.

The mission had brought to notice the invaluable services at the disposal of the Indian Malaria Survey and, if it is suggested that, in future, the Health Organisation should encourage the establishment of expert centres of information about malaria to which health administrations could apply, the use of the Indian Malaria Survey should certainly be considered.

In addition to this, the Commission, subsequent to its European report, had adopted a considerable programme of other work, parts of which seem to have been realised, though there was less information about the progress of other parts. A new programme has now been presented covering additional subjects. It might be difficult to cover all this ground; but, at any rate, the idea of distributing the work among various small committees, each with a Rapporteur and a definite reference, seemed to be hopeful, and the Committee could only wish success to the Malaria Commission in the practical organisation of its work for the future and thank Dr. Lutrario for his exposition and for what he had done as President for so many years.

Dr. RAJCHMAN thanked Sir George Buchanan for his very interesting suggestion in regard to the Indian Malaria Survey. It would be very useful if investigators throughout the world could benefit from the information collected by that institution. The question could be studied with General Graham.

The work on malaria had, up to the present, been concentrated somewhat in Europe, but the extension of the investigations could only lead to good results. Dr. Rajchman pointed out that Dr. Jitta had asked that a mission should be sent to the Netherlands East Indies. There had been material reasons to prevent the realisation of that desire, but it was to be hoped that it would be possible to organise a tour later and to create a centre like the Indian Malaria Survey in the Netherlands East Indies.

With regard to the programme drawn up in 1928, Dr. Rajchman wished to point out that the work was in progress, but that it took a great deal of time. It had been started concurrently in all parts of the world and could be completed for a long time.

Dr. JITTA associated himself with the congratulations extended by the President to the commission. It was very satisfactory that some of his fellow-countrymen, like Professor Schüffner and Professor Swellengrebel, had taken part in the work of the Malaria Commission. He had heard with great pleasure Dr. Rajchman's statement with regard to the proposed centre of study in the Netherlands East Indies.

Referring to Dr. Lutrario's remarks on cinchona bark, Dr. Jitta pointed out that it had been stated that the quantities available each year would suffice for world consumption. He therefore thought the study which would be made by the Kina Bureau would be very useful.

He himself and his office at The Hague were entirely at the disposal of the representatives of the Malaria Commission. At the same time, he thought it somewhat dangerous for the Health Committee to enter into the question of the price of medicaments. The Committee had already discussed this question. He asked whether the use of plasmochine side by side with quinine was very widespread. Experiments had been made in the Netherlands, and it appeared that the treatment gave satisfactory results in connection with the prevention of a return of the disease.

Dr. RAJCHMAN thought that the questions which would be studied with the Kina Bureau raised very wide problems, on which it would be premature for the Health Committee to take a decision.

He did not wish to raise the question of principle whether the Committee should or should not consider the price of medicaments. In the present case, however, that question was of such importance that it seemed, in face of the invitation of the Kina Bureau, that the Committee could not do less than leave the secretariat of the Malaria Commission to get into touch with that Bureau. During the next session, the results of the enquiry would be studied.

Professor BORDET pointed out that malaria in tropical Africa raised problems which were very difficult to study. The question was particularly interesting to Belgium, and Professor Bordet thought he could say, although he had not approached the Belgian Government on the matter, that the help of the Malaria Commission would be very much appreciated.

In reply to Professor Jitta, Dr. CIUCA stated that the question of plasmochine and of quinio-stovarsol had been raised during the discussions at Algiers, and that the study of this question had been entrusted to certain members of the Malaria Commission, who would have at their disposal products coming from the same stocks.

Dr. LUTRARIO thanked the President and all the members of the Committee for their expressions of appreciation.

With regard to the Algiers tour proposed by Dr. Raynaud, Dr. Lutrario thought that it should take place before the renewal of the present Health Committee—that was to say, within three years. He would be glad to take part in the mission. On the other hand, Sir George Buchanan's proposal with regard to the Indian Malaria Survey would be studied with all the attention it deserved.

With regard to cinchona bark, Dr. Lutrario was convinced that the 12,000 tons which were available each year were not sufficient, seeing that that amount corresponded in theory to the requirements of 3,000,000 malaria patients. As to the price of medicaments, he entirely agreed with Dr. Rajchman.

Finally, Professor Bordet's suggestion was very interesting and everything possible would be done, within budgetary limits.

*The conclusions of the report were adopted.*

#### **483. Collaboration with Health Administrations in Bolivia.**

Dr. MACKENZIE stated that a report on his study tour in Bolivia with Dr. Pascua would be written later and communicated to the members of the Committee, but he proposed, in the meantime, to show a number of photographs taken during the visit of the mission to Bolivia in order to give the Commission a general idea of the conditions prevailing in that country. He did not intend to touch on any technical subject at the present stage, and hoped that the Committee would not form an opinion until it had studied the final report.

A number of districts representative of the different types of country in Bolivia were selected, partly by the Government and partly by members of the mission. The area selected included the city of La Paz, types of mining towns and rural districts in the high plateau, the mines themselves, towns in the foothills of the Andes, and, finally, the town and district of Santa Cruz, situated in the tropical section of the country.

Throughout the enquiry the mission was accompanied by the Director-General of Public Health of Bolivia, the whole of the travelling expenses being borne by the Bolivian Government, and every facility being afforded to the mission for investigation. During the course of the survey, the Andes were crossed no fewer than eight times, twice on mule, twice by air, twice by train and twice by car.

Dr. Mackenzie showed the Committee a series of photographs illustrating the difficulties of transport and communications generally, and showing the different types of country, peoples and diseases met with in the high plateau of the Andes, the sub-tropical foothill regions and the tropical regions of the higher Amazon basin.

The PRESIDENT thanked Dr. Mackenzie and offered to him and to Dr. Pascua the Health Committee's congratulations.

Professor PITTALUGA drew the Committee's attention to the great material difficulties which had characterised the tour of Dr. Mackenzie and Dr. Pascua.

Dr. RAJCHMAN observed that the Committee should come to a decision on the action to be taken in regard to the tour in Bolivia.

Dr. Mackenzie had drawn up with the Bolivian Government a plan of collaboration which would be submitted to the Health Committee for approval.

The Government had detailed for a mission in Europe a doctor who had been appointed Director-General of the Health Services. He would arrive in Europe in November 1930, and would stay there until April 1931, in order to establish contact with the Health Organisation and to draw up a definite programme of measures to be taken in collaboration with the latter. That programme would not be easy to draw up, in view of the complexity of the problems to be solved.

Dr. Rajchman thought that it would be necessary, to begin with, to confine attention to ensuring the training of a certain number of Bolivian doctors, who would take part in future collective study tours.

He hoped that the Health Committee would allow the Bureau and the Medical Director to draw up, with the Director of the Bolivian Health Services, a programme which would necessarily be modest.

M. VELGHE entirely approved the suggestions of the Medical Director. The Committee could not discuss any definite proposals until it had received Dr. Mackenzie's report.

*The Committee decided to leave it to the Bureau to study the programme of collaboration with the Bolivian health administrations.*

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## NINTH MEETING.

*Held on Monday, October 6th, 1930, at 5 p.m.*

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*President: Dr. Th. MADSEN.*

### **484. Report on the Study Tour of the Secretary of the Leprosy Commission in Europe, South America and the Far East (document C.H.887).**

Dr. BURNET said that he had endeavoured to carry out the programme of enquiries outlined by the Health Committee in May 1928. A great number of countries had remained outside the enquiry, including South Africa, and important regions in the Far-East, Central Africa and Central Asia, and even in Europe there were certain districts which he had been unable to visit. He wished to thank Professor Pittaluga, who had made it possible for him to collect information on Spain. Oceania also had not been included in the tour, but reliable information was available for that and other areas.

Probably the Health Organisation might wish later on to publish all the available data, much of which he had been obliged to omit in order to make his report as concise and practical as possible.

As a preliminary, Dr. Burnet wished to recall the exchange of views between Dr. Chodzko and Professor Léon Bernard on tuberculosis, and the view that nowadays it was impossible to rest content simply with confining the patients in hospital, but that they should be given effective treatment. In studying leprosy, the Committee should be actuated by the same spirit, for in many ways a comparison could be drawn between the two diseases.

It was regrettable that, as yet, there was no prophylaxis of leprosy. A beginning had been made in certain countries; but, unfortunately, very little systematic work had been done. At the moment, there were two schools of thought. There was the old idea of segregation, which still existed in all its force, while for about twenty years the more difficult and complicated method of prophylaxis had been gaining ground.

Norway was the classical example of segregation, and the decrease of leprosy in that country was certainly a remarkable phenomenon. Norway, however, was a sparsely populated country, with a well-developed civilisation and educational system, and it would be impossible to propose that system for the whole world.

Account had necessarily to be taken of geographical, social and other factors. The isolation of lepers in their own homes, for example, could not be adopted as a general rule.

According to Dr. Alexander Mitchell, Director of Public Health in the Union of South Africa, it would be very dangerous to do away entirely with segregation. In certain areas, where the population was very scattered, dispensaries could only be attended by about ten persons.

Fortunately, segregation was taking a more humane form, and an endeavour was now made to render the conditions of life in the leprosaria tolerable, so that lepers would be willing to come for treatment. The great disadvantage of the method was, however, the expense. Colossal sums would be needed to fight leprosy systematically by means of leprosaria. Nevertheless, segregation was still the principal method used in many countries, and in Japan it was almost the only method. In the Philippines and the temperate parts of America, leprologists were strongly in favour of it.

Why was it not possible to stop at the idea of segregation ? The reason was that leprosaria had not given the results expected of them. He would venture to point out that French medical men had advocated a new programme for many years, and that as long as fifteen or twenty years ago doctors in the French colonies had been of opinion that leprosy could not be eradicated by means of leprosaria alone.

In India, the force of circumstances had led to the employment of a different method, almost against the will of hygienists and legislators. The number of lepers given in the 1921 census was about 100,000 ; but, according to impartial surveys, there were probably from 700,000 to 800,000 lepers in India. Obviously, it was impossible to segregate them. Consequently, the principle of carrying the treatment to the disease by every possible means was soon put into practice, and the P.T.S. system—propaganda, treatment, survey—had now been employed for some years. A system similar to the P.T.S. system was growing up spontaneously in most other countries. Dr. Lutrario and Sir George Buchanan had spoken of the importance of a malaria survey of India. The same remark could be applied to leprosy.

As Dr. Burnet had tried to indicate in his report, between the two more or less extreme systems to which he had drawn attention a certain number of countries, such as Brazil, the Argentine and the Philippines, had adopted a mixed system of segregation and treatment. In this connection, it was only fair to call attention to the great colony of Culion.

When the United States of America started, with the help of General Wood, to fight against leprosy in the Philippines, it was thought that, with the segregation of lepers at Culion, leprosy would decline, but after several years the number of lepers was still stationary. It was therefore concluded that non-segregated lepers spread the disease before segregation, and that compulsory segregation was not sufficient. While, therefore, segregation was still regarded with favour, it was completed by a system not unlike the P.T.S. system. Incurable cases were sent to the leprosarium at Culion ; curable lepers went to the new treatment station at Cebu, which was constructed with funds provided by the Leonard Wood Memorial ; negative cases were discharged.

In Hawaii, there was a leprosarium at Molokai, and a treatment station at Kalihi. Cases which did not yield to treatment and appeared to be incurable were sent to Molokai. A certain number of lepers now came forward voluntarily for treatment.

The new ideal—and the cardinal point of the British system—was to treat leprosy as early as possible, and institutions other than leprosaria and treatment stations were therefore made use of. In the Philippines, the skin dispensaries now endeavoured to detect cases, and in a year and a-half a number of lepers had been sent for treatment to Cebu.

Even that did not suffice. Some of the "cured" lepers were so disfigured that they were unable to return to their families, or to find work, and it was now proposed to start an agricultural settlement at Culion, where they would be able to support themselves by their work.

The new system of prophylaxis was necessarily complex, consisting, as it did, of leprosaria, treatment stations, dispensaries and special provision for former lepers ; but an epidemiological enquiry, including a census and the following up of cases treated, was also essential.

Such a system could only be put into practice little by little, and hygienists were all convinced of the necessity for educating public opinion, which at present displayed the curious contradiction of carelessness and phobia in regard to leprosy.

What was the value of treatment, and in what did it consist ? The best rule was that the prophylaxis of leprosy should follow the same lines as the prophylaxis of tuberculosis. Everyone was aware that treatment consisted in the application of chaulmoogra and its derivatives. Some leprologists, however, were very sceptical as to its value.

Personally, Dr. Burnet thought the word "treatment" alone had very little significance. It was necessary to know how the treatment was given, the number of injections, what product was used, with what regularity and for what length of time, whether it came from a specific source, and so on. At present there was a state of chaos. Some leprologists advised one course and some another. Some considered that better results were obtained with the use of chaulmoogra, others that it should only be used after general treatment—medical, surgical, physiotherapeutical and dietetic—had been applied. The whole question of treatment required thorough and critical examination.

What could be done in practice ? It was very encouraging that the parties holding opposing views were not absolutely irreconcilable. Dr. Burnet had sketched out a programme in the second part of his report, which related more particularly to the Health Committee. He believed that it should be possible to obtain the agreement of leprologists on a programme of action with a view to formulating a doctrine, and that, with sufficient information, the Leprosy Commission could draw up certain general conditions for the fight against leprosy, or at least encourage the necessary experiments.

A crucial test would be to take two groups and to subject each to the same conditions and the same general treatment by dietetic, medical and surgical means, but to treat one group with chaulmoogra in addition, and at the end of two years to note the results.

In order to carry out experiments, an organisation would be necessary, and the Leprosy Commission thought that the setting up of international centres for the study of leprosy should be encouraged. There were many qualified scientists and there was an abundance of bibliography. It was proposed that there should be an international centre in Japan and one in Rio de Janeiro. Special facilities had been offered by the Brazilian Government, and the

valuable work which had already been done in Japan in regard to the serological diagnosis of leprosy should be continued.

The centres would be partly supported by the countries in which they were situated, and the Leprosy Commission and the Health Committee should consider how they could best participate in the work. The interchange system could possibly be related to the idea of international centres, and means were already available by which the Leprosy Commission could become an international centre for information.

One of the principal results of the tour was the satisfaction with which leprologists had welcomed the fact that the Health Committee had decided that an enquiry into leprosy ought to be undertaken. Treatment was the cardinal point, and when agreement was reached on that subject the whole prophylaxis of leprosy could be discussed.

Standardisation was important; but, besides the standardisation of chaulmoogra oil and the esters of chaulmoogra, attention should also be paid to uniformity in its therapeutical efficacy. Uniformity of terminology, too, was essential if any idea was to be obtained as to the results of treatment, as well as classification and definition of the different forms of leprosy.

In conclusion, Dr. Burnet would say that more and more was it daily borne in on him that leprosy was not a disease like other diseases. It attracted universal attention because it was unique and because of its moral associations.

Great progress would have been made when public opinion was better informed, and the Health Committee would earn the gratitude, not only of public opinion and of leprologists, but of lepers themselves by its action.

The PRESIDENT said that the Committee was grateful to Dr. Burnet for the way in which he had carried out his mission. His report was an admirable survey of a very difficult question.

There was a great deal to be done, and the Leprosy Commission and the Health Committee would have to find solutions for the problems which Dr. Burnet had so carefully explained.

As Dr. Burnet had pointed out, the present was a critical moment, for, while the treatment dated as far back as 1924, the survey had shown that there had been a number of relapses. The question was obviously urgent.

Professor BORDET congratulated Dr. Burnet on his report and his clear explanations.

Leprosy was not of great importance to Belgium except in the colonies, but from time to time cases were imported into the country. In Belgium, there was a strong conviction that leprosy was practically non-infectious, but he personally did not agree. He would be glad to know Dr. Burnet's views on the compulsory notification of leprosy. It would be difficult to set up leprosaria everywhere.

Dr. BURNET replied that a certain number of general hospitals, such as Saint Louis, had wards for lepers, which would appear to indicate that there was no risk of infection. Some scepticism might be expressed, however, as to the duration of the cure in temperate climates. Cases had been contracted in France and other European countries during the past four years through contact with persons from leper countries, and the experience of Saint Louis could not be regarded as conclusive. At Bergen, there were terribly mutilated and scarred patients who were apparently cured and not infectious, but who had been there for over fifty years.

In reply to Professor Bordet, he would say that it was necessary to isolate and treat cases such as those to which he had referred.

In connection with treatment, it was impossible not to be struck by certain facts. The eminent leprologist, Mitsuda, in Japan, who was still a convinced segregationist, was of opinion that treatment did not cure and that there were negative lepers who, though they had no bacilli in the mucus and skin and reacted negatively to all tests, were found, when examined, to have certain bacilli in the nerves. If such cases were rendered negative for four, or five years, however, surely treatment could be considered efficacious, even though a reserve had to be made in view of cases of relapse. It seemed, moreover, to be well established that better results were obtained from treatment combined with segregation.

Professor BORDET wondered whether more energetic measures of control would not be desirable, and whether lepers coming into the ports should not be returned to their country of origin.

Dr. BURNET thought that more energetic measures of control were absolutely necessary.

Dr. LUTRARIO wished also to congratulate Dr. Burnet on the very clear picture he had given of the grave situation in regard to leprosy. Obviously, it was scattered throughout the world, and even Europe was not exempt.

A census had shown that in Italy there were 184 lepers, mostly in the towns which had relations with leper countries—in Liguria, among others. Italy was therefore much interested in the question, because there were many Italians working in other continents who returned to their own country and might bring in infection. In Italy, lepers were segregated at San Remo, and an attempt was now being made to concentrate these cases elsewhere in a province in which conditions appeared suitable.

It was essential that lepers should be made to realise that their condition could be cured or improved, and Dr. Lutrario was strongly of opinion that improvement in treatment could be realised. In view of the special importance of leprosy for Italy, he would be very glad if his country could collaborate suitably in the action which Dr. Burnet had indicated in such a masterly fashion.

Dr. TSURUMI wished also to congratulate Dr. Burnet on the very remarkable way in which he had carried out his important mission.

He had read the report and the programme of work with great interest, and would venture to submit a few observations.

The Japanese Government was glad to accept the proposal to set up an International Centre in Japan, and was prepared to collaborate closely with the Health Organisation of the League of Nations, it being understood that use would be made of the institutions already in existence. He was very glad to inform the Committee that it had been decided to set up in Japan, under the patronage of the Minister for the Interior, a preventive association against leprosy. It would deal, in the first place, with the social aspect and the scientific study of the disease. It was hoped to obtain fruitful results by close co-operation with the Government.

He wished also to express his views upon certain important points enumerated by Dr. Burnet in regard to the future work of the Commission.

With regard to segregation, up to the present his Government had adopted the system of compulsory segregation, because in their opinion there was no other appropriate preventive measure. In Japan, at any rate, compulsory segregation had proved its efficacy, for the number of lepers had decreased progressively from year to year.

The value of dispensaries in combating the scourge of leprosy should certainly be studied, and, if experience showed that they were useful, Japan would not hesitate to adopt that system. There was, however, a certain amount of apprehension in Japan on the ground that the dispensaries would be feared by the lepers, who would come once but would not return. After a case of leprosis had been diagnosed, the patient often hid himself, and, in general, isolated himself completely from society, sometimes even from his family, owing to the popular idea that it was a punishment from Heaven.

With regard to preventive measures, it was important to take into consideration the fact that early diagnosis was not always very easy, particularly when the disease was only beginning to attack the nerves.

The serological test of leprosy had been studied in Japan from the point of view of diagnosis. The result of Dr. Tsurumi's own personal experience showed that it was possible to demonstrate complement-fixation tests with leper serum, by using a particular form of lipid as antigen. In view, however, of the non-specificity of that test, it had not proved to be adequate, and he hoped that it would be possible to find a sufficiently specific serological test which would enable the diagnosis of leprosy to be made in the same way that the Wassermann test made possible the diagnosis of syphilis.

Another important question was the treatment of leprosy. Japanese leprologists were not convinced of the efficacy of chaulmoogra oil and its derivatives. Moreover, it was not yet known whether these products were really a good medicament for the treatment of leprosy. In those circumstances, it was absolutely necessary to continue the enquiries with a view to finding an efficacious method of treatment.

Sir George BUCHANAN noted that the discussion had been turning on the disappearance of leprosy from northern Europe, the question of compulsory notification and various other matters on which, from the international point of view, considerable information was to be found in the procès-verbal and *Bulletin* of the Office international d'Hygiène publique two or three years ago. Some data for Great Britain were included in these discussions. All the lepers in Great Britain had contracted their infection overseas, and none of them, within recent years at all events, had transmitted leprosy within the country. The popular attitude of mind towards the word "leper" had constituted one of the principal reasons why the disease had not been included among those which are compulsorily notifiable. The Committee would look forward with the greatest possible interest to the next stage, when the Leprosy Commission would get to grips with the question. The prospect of a joint conference of the Leprosy Commission and the "Leonard Wood Memorial for the Eradication of Leprosy", at Manila, gave ground for hoping that progressive practical work in various directions could be evolved.

Dr. PITTALUGA wished also to associate himself with the opinions already expressed regarding Dr. Burnet's report. He said that, fifteen years ago, he had studied the epidemiology of leprosy with M. de Buen in Eastern Andalusia. Sixty years previously Hernando had investigated endemic centres of leprosy in Spain and had conducted an investigation into the possible origin of the disease. His enquiries had indicated that there were in the neighbourhood of Granada houses where the disease appeared to be endemic.

Recent investigations had shown that there were 500 cases in Eastern Andalusia. The attitude of the population was similar to that described by Dr. Burnet. There was some carelessness in regard to individual cases, but a horror of the leprosy settlements.

He had himself studied the disease also in Catalonia. That was not so important a centre. From 200 à 250 cases had been discovered. The Catalonian Health Service had endeavoured, a few years ago, to introduce methods of supervision, including a system of photographs and card indexes. This system made it possible to keep in touch with lepers who escaped segregation and to follow the morphological progress of the disease.

Twenty years ago he had, after his study tour in Western Africa, published certain data concerning the position of leprosy among the tribes, where the disease was much more common than was supposed. The tribes practised an empirical system of segregation, and even those tribes which were far from the coast kept their lepers confined in huts entirely separate from the rest of the community.

He might remind Dr. Burnet of the work accomplished in Spain by the leprosarium at Fontilles. Here it had been recognised that, if adequate medical care and good food were given to the patients, the use of chaulmoogra was effective. His own experience showed that there were still in European countries centres of the disease which required serious watching, and the Spanish leprologists would be glad both to help in the present investigation and to receive advice and assistance in dealing with their own local problems.

Dr. RAJCHMAN said he would like to associate himself with the thanks that had been addressed by the President of the Health Committee to Dr. Burnet. It had been very difficult to know what to do or where to begin when the vast question of leprosy had first been brought up for consideration. After Dr. Burnet's tour in South America and the Far East it had become possible to realise that really effective work might be done by the Commission.

The Committee would recall that a proposal had been made for the Leprosy Commission to meet at Manila in January 1931, concurrently with a Conference of leprologists under the auspices of the Leonard Wood Memorial for the Eradication of Leprosy. Until quite recently, it had appeared that this arrangement was definite, and plans were being made for the meeting. Difficulties had arisen at the last minute which could not have been foreseen and made it impossible for this joint meeting to take place at Manila. It would be necessary for the Health Committee in those circumstances to take a decision as to the time and place of meeting of the Leprosy Commission. It would be unfortunate if the meeting were postponed. He would propose that the Commission should meet at Bangkok at the time of the Congress of the Far-Eastern Association of Tropical Medicine, from December 7th to 13th, in order to examine the programme suggested by Dr. Burnet.

He would also refer to the scheme for the establishment of two international centres for the study of leprosy at Rio de Janeiro and Tokio. The Brazilian Government had proposed to the Council of the League that an international centre should be established at Rio, and official correspondence was exchanged between the Council and the Federal Government of Brazil in 1928 (document C.H. 710). For two years an attempt had been made to secure the co-operation of an international expert whose services would be made available for the proposed centre. The Committee would be glad to learn that Professor Nocht had accepted the task. The necessary details would have to be settled with Professor Chagas, and he hoped that it would be possible finally to settle these details next week in Paris, so that the centre might be inaugurated in 1931.

He was grateful to Dr. Tsurumi for the statement which he had made regarding the proposed centre at Tokio. The Japanese Government welcomed the proposal, provided that use was made of existing institutions and provided the necessary arrangements were made in consultation with the Japanese member of the Commission.

Dr. RAYNAUD said that he had personal experience of leprosy in Algeria. In 1897, of 100 cases recorded in that colony, two-thirds had been imported from Spain. There had been only three or four native cases, and these were not apparently contagious. Since then—that is, for about thirty years—the number of cases that had come to his personal knowledge was 200. The notification of the disease had been made compulsory, not, however, with a view to segregation but with a view to proper supervision at the home of the patients. The experience in Algeria showed that, provided the patients were kept in good sanitary condition, the lesions tended to disappear and the disease was not spreading.

There were important endemic centres in Morocco, where 200 cases had been discovered in the neighbourhood of Marakesh and Fez. Here the disease was apparently contagious. The problem arose as to why leprosy spread easily in some regions and less in others. Any enquiry into the methods of treatment was of great interest to the French colonial authorities.

Professor JITTA said that there were many cases of leprosy in the Netherlands East Indies, and that his Government cordially welcomed and supported the work of the Leprosy Commission.

In the Netherlands, there had been isolated cases which appeared to be mainly due to the introduction of the disease by soldiers returning home from the colonies. The general view in the Netherlands was that the disease was not infectious in northern countries. There had been one case, however, where a soldier in constant contact with his brother had transmitted the disease at the end of a period of twelve years. This case would seem to indicate that the disease took many years to develop and might therefore be contagious without this fact being immediately apparent.

Dr. BURNET said that for adults the incubation period of the disease was unknown. In the case of children, the period appeared to be from three to five years. The case of the Netherlands East Indies was interesting. The authorities desired to take active measures, but had not been able to apply a single system to the whole country. Segregation might be suitable in some regions and not in others.

Attention had been drawn to the large proportion of nervous cases in Japan. Whereas in leper settlements 80 per cent of the cases were contagious, the proportion in isolated cases was directly inverse and some 75 per cent appeared to be merely nervous.

It would be an exaggeration to say that there were two parties or schools on the subject of segregation. It would be more correct to say that there were two points of view or currents of opinion. It was admitted that segregation could not be abandoned. On the other hand, it should be noted that, in the leper settlements, the cases were usually far advanced, dating back usually at least five years. The question arose whether isolated cases could not be taken with advantage at an earlier stage.

The PRESIDENT said that, in his view, the disease should be notifiable, though cases might be dealt with individually.

Sir George BUCHANAN observed that the President was expressing his own view and not that of the Committee.

The PRESIDENT agreed.

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## TENTH MEETING.

*Held on Tuesday, October 7th, 1930, at 10 a.m.*

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*President: Dr. Th. MADSEN.*

### 485. Enquiry on Endemic Syphilis in Certain Areas of Bulgaria.

Professor JESSNER submitted the following summary of his report :

The Bulgarian Health Service is entrusted to the *Direction de la Santé publique*, a department of the Ministry of the Interior. The "Direction" is provided with inspectors for social diseases, infectious diseases, malaria, infant protection, hospitals, etc. The entire organisation is strictly centralised, even the most junior health officers and nurses in remote districts being appointed by the *Direction*. The *Direction* is assisted by a sanitary advisory board consisting of the leading physicians of Sofia.

The country is divided into *départements*, these into *arrondissements* and these into districts, which in rural areas are composed of about four or five villages. At the head of the *département*, as well as in each of its *arrondissements*, are medical officers of health, whilst the sanitary work in the districts is carried out by a physician or a "feldscher"—i.e., a man not fully qualified. All these persons are Government officials. Sanitation in general leaves much to be desired, especially in the rural and outlying districts of the country; but it is probable that a new public health law, which has recently come into force, will bring great improvement. In addition, the number of physicians is rapidly increasing, so that in course of time the "feldschers" will naturally be replaced by them.

Sanitary progress is, however, greatly impeded by the difficult financial position of the State, the passive resistance of the rural districts against paying their medical officers, the unwillingness of physicians to go into the outlying areas, and, worst of all, the very poor state of communications. In many of the outlying areas, the only possibility of reaching some of the villages is by dangerous mule tracks or in little boats over the open sea.

On the other hand, the physicians at present working even in these outlying districts have, as a general rule, a very high morale and are showing interest and devotion in their work.

In March 1930, Professor Jessner and Dr. Olsen carried out a short preliminary enquiry in Bulgaria with the object of studying the degree of syphilitic infection in the *département* of Burgas and of making proposals with regard to remedying it. The plan of action, which was decided upon in conference with the representatives of the Bulgarian Government and of the *Direction générale pour l'établissement des réfugiés bulgares* of the High Commission of the League of Nations, have subsequently had to be modified as the result of Professor Jessner's second visit to Bulgaria in June and July 1930.

In the *département* of Burgas, the treatment of syphilis could not be entrusted to the medical officers of health of the *arrondissements*, as they are not allowed by law to give any treatment. The treatment was, therefore, entrusted to the village doctors. They would be responsible both for their own village and for the adjoining ones staffed only by "feldschers".

In certain more remote districts where difficulties of communication would render this plan impossible, the medical officer of health of the *arrondissement* was to be given an assistant physician for this purpose.

In the two *arrondissements* presenting the greatest difficulties—viz., Vassiliko and Malko Tarnovo—one or two "brigades" consisting of one physician and one "feldscher" would be entrusted with the work.

Dispensaries, built on the type of the refugee houses, were to be erected in Burgas and Vassiliko.



Serological examinations were to be the basis of every anti-syphilitic treatment. They were to be carried out by an efficient serologist stationed in the Malaria Institute of Burgas.

For those cases requiring hospital treatment, a special ward (thirty beds) was to be erected as an annex to the hospital of Burgas. A trained syphilologist was to be appointed as responsible chief and consulting medical officer for the department.

In order to ensure the necessary standard of diagnosis and treatment, Professor Jessner has given courses of instruction of two weeks' duration in Burgas. In two such courses it has been possible to instruct all the physicians of the *département*. He specially notes the great interest and application shown by most of them.

At the time of writing his report, the head syphilologist, Dr. Schauloff, had been appointed, the physicians had received their training, the serological department and the dispensaries were in working order, one "brigade" was on duty, and the ward in Burgas nearing completion.

For the Mohammedan regions, it has been found necessary to appoint lady doctors, as the Mohammedan women absolutely refuse to be examined or treated by men.

The sero-diagnostic work is chiefly carried out by means of the Kahn test. Detailed examinations have shown that, even in this malaria-infested department, the Kahn test appears to give reliable results as regards the diagnosis of syphilis.

On the other hand, the interesting fact has been noted in some villages of the Burgas *département* that about half the patients giving a positive serological reaction are, from the clinical point of view, cases of latent syphilis. This percentage is in fair agreement with Professor Jessner's observations on the occasion of his expedition to Mongolia and with recent observations in Bosnia. They prove the great necessity of carrying through the campaign against syphilis most strenuously.

The PRESIDENT thanked and congratulated Professor Jessner.

He drew attention to the zeal and the high degree of scientific knowledge which Professor Jessner had discovered among the Bulgarian doctors. That was an excellent basis for the anti-syphilis campaign in Bulgaria. In that country, as in others, there were not only technical and material difficulties, but the question arose as to whether the campaign should be entrusted to doctors or to mobile brigades.

As a serologist, the President was particularly interested in the question of the value of the Kahn test for malaria patients. He hoped that Professor Jessner would find a means of testing the results obtained with the Kahn test by means of Bordet-Wassermann examinations.

It was interesting to note that a great number of syphilitic cases had only been discovered by serological examination. It was a fact, moreover, that, as the sensitiveness of the methods of examination increased, more and more cases of syphilis were discovered.

Professor BORDET asked Professor Jessner whether tabes was frequent.

Professor JESSNER replied that he knew of only three cases. Certain writers claimed that it did not exist in Bulgaria. It should be pointed out, however, that it had never been possible to make a systematic examination of the situation with the use of modern methods.

He had made a study of that kind in collaboration with Russian doctors in Mongolia, where syphilis prevailed in an endemic state and where the population had never received treatment. The enquiry had shown that tabes was not rare.

With regard to Bulgaria, serious studies had never been made, but as soon as the new hospital was built considerable equipment would be available.

Dr. CHODZKO had been very much interested in Professor Jessner's statement, especially in regard to the question of the Kahn test. In the Carpathians, in what was formerly eastern Galicia, there lived a Ruthenian mountain population, which had suffered from endemic syphilis since the end of the eighteenth century. At that time, doctors had drawn the attention of the Austrian Government to the situation, and a few hospitals had been started. Action had then been suspended and resumed in 1902, but no information on the results then obtained was available.

The campaign had again been started in 1918 by the Polish Government, and in 1923 ten anti-venereal dispensaries had been installed in five districts in the Carpathians. No mobile brigades had been organised, and Dr. Chodzko had spoken against the principle of these "brigades" during the discussions of the Health Committee.

As nearly 90 per cent of the patients ceased to attend the dispensaries after the disappearance of the first symptoms, the treatment was never completed. On the other hand, ten dispensaries were not enough for the needs of the population. It was surprising to note, however, how mild a form was taken by this endemic syphilis, which received very little or inadequate treatment. According to a note prepared by Dr. Jobczyk, State doctor of Kossów district, the figures for still-births and infant mortality in that district during past years were as follows :

1. Still-births (Congenital Syphilis).

Year	Peczenizyn district Percentage	Kossów district Percentage
1926 . . . . .	0.57	2.04
1927 . . . . .	1.14	1.27
1928 . . . . .	0.58	1.36
1929 (first quarter) . . . . .	0.00	1.00

It should be pointed out that the percentage for the whole of Poland averaged 2.

2. Infant Mortality (up to 1 Year).

Year	Peczenizyn district Percentage	Kossów district Percentage
1926 . . . . .	21.8	23.8
1927 . . . . .	32.4	27.2
1928 . . . . .	29.0	28.8

Here, again, the percentage was lower than the average in the western departments and in the towns of less than 100,000 inhabitants. Obviously, infant mortality in the industrial and agricultural districts could not be compared. In the district in question, however, the adult population went away from the villages in spring, leaving the old people to look after the children, who were often fed on centrifuged milk. The conditions there were thus not unlike those prevailing in industrial districts.

Out of 1,855 cases registered at five dispensaries, the proportion of quaternary syphilis was 0.48 per cent; but, as Dr. Chodzko had already pointed out, account should be taken of the fact that the patients only resorted to the dispensaries for the treatment of secondary effects, especially the headaches from which they suffered. Once those headaches ceased, the patients disappeared. The blood test made *en masse* in 1928 had proved the great frequency of the infection among children and young people. That special test had proved necessary to discover the disease, owing to the fact that children very rarely came to the dispensaries.

It was claimed that the very slight form of syphilis noted in the country was due to the fact that the children suffered from a great number of badly treated diseases, and that the fever which accompanied those diseases had an influence on the subsequent manifestations of syphilis. From that it was deduced that, when the level of civilisation was raised and infantile diseases were better treated, syphilis would take a more acute form.

Dr. Chodzko quoted a number of figures with regard to latent syphilis and diseases of the heart and blood-vessels which had been drawn up in connection with various pieces of work, and in particular during the important expedition to Mongolia.

It seemed necessary to draw conclusions from this collection of figures in order to determine the treatment which should be applied to so-called endemic syphilis.

The PRESIDENT thanked Dr. Chodzko and invited the members of the Committee to send all possible information on this question to the Health Section.

Dr. LUTRARIO congratulated Professor Jessner on the result of his work, and wished to ask three questions which appeared to be important from the social point of view:

1. Had Professor Jessner noted in Bulgaria a fact which seemed to exist in all the countries of eastern Europe—namely, the preponderance of extra-genital syphilis over genital syphilis?
2. What points had he noted in regard to syphilis among infants? In Italy, epidemic had broken out in various small rural centres.
3. Was the treatment free?

He had learned with great satisfaction that Dr. Jessner had advised the health administrations to rely above all on the physicians. Mistakes similar to those which had marked the beginning of the campaign against malaria should be avoided.

Professor JESSNER gave the following replies:

1. He had not noted any primary extra-genital syphilis in Bulgaria. Moreover, he thought it difficult to distinguish genital syphilis from extra-genital syphilis in the districts in which endemic syphilis prevailed.
2. In the somewhat backward districts where endemic syphilis prevailed, syphilis was rare among infants; those affected usually died from other diseases. In Mongolia, syphilis among infants had rarely been noted.
3. The treatment was quite free. The physicians were paid by the councils of the *départements*, villages, etc.

Dr. RAJCHMAN was sure that the Committee would regret the absence of Dr. Kessiakoff, who was unable to leave Bulgaria. Professor Jessner would have to return to Bulgaria in a few months, and Dr. Rajchman earnestly hoped that Dr. Kessiakoff or another representative of the Bulgarian health authorities would be able to attend during the discussion of the final report which would be submitted on his return.

#### 436. Survey of Health Conditions in the Pacific Islands.

Dr. HERMANT recalled that the enquiry he had made in the Pacific Islands with Dr. Cilento had been undertaken as the result of a resolution of the International Pacific Health Conference, held at Melbourne in December 1926. The mission had been asked to make a rough survey of the question and to draw attention to the matters on which additional enquiries were necessary. In particular, it was necessary to study the causes of the depopulation of those islands and the methods used to combat it. A programme had readily been drawn up and sent to the health administrations concerned.

The itinerary followed by the mission had been the following: Fiji Islands, New Hebrides, New Caledonia, Territory of Papua, New Guinea and the Solomon Islands. The tour had not been easy to organise, for, though most of the island groups were linked up with Sydney by a monthly shipping service, the connection between the islands themselves was very bad, and the mission had had to change boats seventeen or eighteen times, which had caused considerable delay.

Dr. Hermant drew from this the following practical conclusion. For later enquiries, missions should be provided with a small boat which would save both time and money.

With regard to depopulation, all the scientific groups which had studied the situation agreed that it existed. In the Fiji Islands, the population had fallen from 105,000 in 1891 to 90,000 in 1927, and to a minimum of 80,000 in 1920. In New Caledonia, the native population had fallen from 60,000 in 1860 to 27,000 in 1927. With regard to the New Hebrides, the Territory of Papua, New Guinea and the Solomon Islands, precise information was not available. There was unanimous agreement, however, that there had been considerable depopulation, but that the situation was now stabilised.

With regard to the causes of depopulation, there was also unanimous agreement in imputing it to the appearance of the white race, which had changed the customs of the natives.

They had been made to emigrate for the purpose of providing labour in other districts. Emigration to Queensland had now ceased, as well as recruitment for the Fiji Islands, where Indian labour had now been introduced.

The departure of a great number of adult males had completely changed the system of nutrition of the population. It was the adult males who carried out the reclaiming of the land for cultivation. In addition, the population had been deprived of part of its share—very rich in vitamins—of the fishing industry. Finally, the natives had started to trade on their own account (export of copra), and with the resources obtained they procured preserved foods.

In addition, it had been noted that the natives did not know how to use the new garments they had adopted. They kept their clothes on when they were wet, and, in view of the great susceptibility of the race to chest diseases, the results were terrible.

Finally, contact with white settlers and the new groups of natives had led to epidemics hitherto unknown, such as bacillary dysentery. Certain diseases relatively benign in Europe sometimes decimated the race. Thus, an epidemic of measles had claimed 30,000 victims and an epidemic of influenza 7,000.

It had been thought that leprosy was introduced in 1865 by the Chinese, but it was now believed that it had existed in the Pacific before that time. In the Fiji Islands, there were 800 lepers, 400 of whom were segregated. In the other groups of islands, however, there was very little leprosy, for the various tribes were always at war with one another, which meant that they were in a kind of continual quarantine. Leprosy had developed with particular intensity in New Caledonia (450 lepers in the principal island and six to seven hundred in the secondary islands).

Two very definite forms of leprosy had been noted. Whilst among the Kanakas of Melanesian race its form was more particularly tuberculous, among the Polynesians it took nervous forms. It was not unusual to find cured lepers (with crooked fingers which had remained in the same condition for twenty years). The population took little and inadequate care of itself.

With regard to tuberculosis, it seemed that although hitherto it had not been very widespread, it was now tending to increase. It could be said, however, that the natives did not have time to become tuberculous; those predisposed died of bronchial pneumonia. Bronchial pneumonic diseases more than any others should receive the attention of the health authorities.

In certain groups, almost complete immunity against malaria had been noted. It seemed that there were no anopheles in the Fiji Islands and in New Caledonia. The possibility of the introduction of malaria was contemplated with horror by the administrations. A study would certainly be very necessary of the anopheline fauna and the dangers of infection in the various groups of islands.

Cases of filariosis were found, and were very numerous in New Guinea, the Territory of Papua, New Caledonia and the New Hebrides, in particular. The study of this question was also necessary.

With regard to the measures taken to combat depopulation, the situation varied considerably according to which island group was considered.

In the Fiji Islands, there was a very well-developed medical and health service in numerous forms which met the needs of the situation. A school had been set up at which native assistants, who were then allocated to various parts of the islands, were trained. Each was put at the head of a dispensary under the control of the European doctor of the district. That school had been very much developed recently, thanks to the action of the Rockefeller Foundation.

In the Fiji Islands, there were various quarantine stations, mental asylums, child-welfare services, etc. The treatment of ankylostomiasis was accepted because it was imposed as a preliminary condition to the treatment of pian by arsenic injections, about which the natives were fanatical. Finally, certain health measures were organised in the villages.

In the Solomon Islands, the organisation was more simple because more recent. At Tulagi, there was a very well-equipped hospital which the natives valued. Its activity was completed by medical tours for the treatment of ankylostomiasis and pian. The natives, especially the women, were not refractory to European medical treatment when this was administered by qualified nurses who were interested in the people.

In New Guinea, Dr. Cilento considered that it would be advisable to allow the natives to take part in the health administration. With the assistance of eight doctors, he had trained native assistants whose special duty it was to give information on the epidemiological movement which might occur. These assistants sometimes abused their functions, but with time the system would certainly improve. The colony was very scattered, and a small hospital had been installed in each island. European nurses travelled about the colony and in particular gave treatment for pian. In addition, help was given by the missions, each of whom had a well-defined sphere of action. Improvement from the health point of view was continuous.

There were many Europeans in New Caledonia, which tended to keep doctors in the centres and to prevent them from going about the country to look after the natives. Mobile brigades had also been established. The repugnance shown against the employment of natives had been overcome and they would, as in New Guinea, provide useful assistance.

Dr. Hermant then drew attention to the measures to be taken to put a stop to depopulation.

He had found everywhere regulations providing for the more rational and humanitarian utilisation of native labour. The period of recruitment was limited to two years, and the workers who emigrated were allowed to take their families with them.

In the New Hebrides, where Asiatic labour was necessary, the workers, each of whom had his family with him, benefited from the presence of an inspector of labour. The double administration of the Condominium somewhat complicated the Health Organisation, but the English and French dealt with their respective nationals, and the labour imported by them. They had agreed that a doctor should deal specially with the natives, with the help of the missions.

To make up for the inadequacy of the population, England had organised the immigration of Indian elements to the Fiji Islands. That immigration was now at an end, and 60,000 Indians were installed. It was noted that they had had no harmful influence on the health of the native part of the population, for the two races mixed very little, and the Indians very quickly rid themselves, in this particularly healthy climate, of the diseases peculiar to them.

It was to be hoped that similar results would be noted in the New Hebrides, although the climate there was less healthy.

Dr. Hermant then examined the help which should be given to doctors and health administrations.

The majority of the problems could be solved on the spot by the administrations concerned. The Australian Government had transferred to Sydney a centre of inspection at which all the doctors intended for Papua had to take a course. It was also open to doctors intended for other groups of islands.

The Health Organisation of the League of Nations could do very useful work by organising, with the help of Dr. Cumpston, Director-General of the Health Department of the Australian Commonwealth, collective study tours in which would take part the physicians, up to the present somewhat isolated, who lived in the different groups of islands. Scholarships could perhaps be given to one or two doctors from the groups concerned to enable them to take part in the triennial congress of the Far-Eastern Association of Tropical Medicine.

In addition, an entomological enquiry should be undertaken for the study of the local fauna from the point of view of malaria and filariasis.

Dr. Hermant concluded by pointing out that all the doctors had told him that syphilis was unknown in the Fiji Islands, the Solomon Islands, New Guinea, the Territory of Papua and New Caledonia. This seemed very astonishing in view of the contact which had already occurred with infected elements; but the Commission had noted that yaws was extremely widespread, 95 per cent of the inhabitants being infected, and the question rose whether yaws did not confer immunity from syphilis, a question to which the Health Committee should direct its attention.

The PRESIDENT thanked Dr. Hermant and congratulated him as well as Dr. Cilento on the work accomplished.

Dr. Hermant had drawn attention to a certain number of very interesting questions which should be followed up and which required the collaboration of the Health Organisation.

The Health Committee would certainly leave the Medical Director to study the methods of that collaboration, and Dr. Cumpston's help would be very valuable.

Sir George BUCHANAN said that, when the Australian Government, on Dr. Cumpston's initiative, called together an official international health conference at Melbourne in 1926, the primary object was the adjustment of quarantine measures in the Pacific following on the International Sanitary Convention. But Dr. Cumpston had wisely gone further than this, and secured the presence of men who could speak with authority on such questions as depopulation, nutrition, and the geographical incidence of diseases in the islands. He had been wise also in extending the invitation to the Health Organisation and so securing the attendance of Dr. Norman White. The result had been that the invaluable data furnished at

Melbourne had now been supplemented by the mission of Dr. Hermant and Dr. Cilento, the conclusions of which Dr. Hermant had summarised with sound judgment and epidemiological acumen. Their mission could not fail to have given very welcome stimulus and encouragement to medical officers and investigators in the different island groups. There now remained to go the next stage, which was one of limited but intensive action in the three special directions indicated, and he hoped that all these would be pursued.

Dr. RAJCHMAN joined in the President's thanks and congratulations.

With regard to the concrete proposals submitted to the Committee for examination, Dr. Rajchman wished to make a few preliminary explanatory remarks on the possibilities of an action of the Health Organisation in the Pacific area.

As the Committee was aware, the Eastern Bureau continued to extend its activities and to become more and more a branch of the Health Organisation for Eastern countries.

Dr. Rajchman proposed, in consequence, that the Health Committee should ask that Bureau to study, with Dr. Cumpston's help, the question of scholarships for participation in the Congress of the Far-Eastern Association of Tropical Medicine, which would take place in two years, and that of collective study tours. The organisation of the latter would depend on budgetary resources but the question would be examined as sympathetically as possible.

With regard to the enquiry on malaria, the question would have to be examined by the Malaria Commission. The Australian delegation had referred to that question at the last Assembly, and the enquiry might probably be undertaken next year.

Finally, the question raised by Dr. Hermant concerning syphilis and yaws was of very great technical interest. There was unanimous agreement that, in general, very little was known about syphilis in the Far East. The Reporting Committee on questions relating to venereal disease, presided over by Professor Jadassohn, would be requested to study Dr. Hermant's suggestion and to submit proposals at the next session.

Dr. Rajchman considered, in short, that the Committee could give satisfaction to the Australian Health Administration, and a logical sequel to the enquiry undertaken, by deciding that the collaboration of the Health Organisation would be by means of an enquiry on malaria, participation in the study of syphilis, and the organisation of collective and individual study tours.

*The Committee approved the suggestions submitted to it.*

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## ELEVENTH MEETING.

*Held on Tuesday, October 7th, 1930, at 3.30 p.m.*

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*President: Dr. Th. MADSEN.*

### 487. Report of the Cancer Commission.

Sir George BUCHANAN wished shortly to summarise the results achieved by the Cancer Commission since 1923. He had already circulated a memorandum on the subject (Annex 15). There were two chief landmarks in the history of the Commission's work. First, the report dated November 1927 (document C.H.631), and, secondly, the report of the Radiological Sub-Commission.

The report of November 1927 represented a summary of a very exhaustive series of investigations made in relation to the causes of the differences of cancer mortality in certain countries. If these investigations had not led to any single cut and dried explanation of the differences in question, they had secured that various plausible hypotheses had been exhaustively examined and tested. The thoroughness and scope of its work was not always recognised as fully as it might be. It was still not uncommon to find new publications which showed that a great deal of effort had been needlessly employed in going over ground which the 1927 report had fully covered.

After completing this report, the Cancer Commission had limited its field of action and had established a Sub-Commission on radiological treatment. Many countries felt the need of knowing what could be achieved by securing a greater supply of radium. The Sub-Commission had dealt with this aspect in two ways in its report of 1929. It had first examined certain general question, such as whether radium treatment should be concentrated in a few centres, or diffused over a large number; secondly, it had taken a cancer of one site, the uterus, with the object of assessing the results of different forms of radiological treatment. It had been necessary for that purpose to obtain an agreed definition of the various stages of uterine cancer. It had also been necessary to establish a standard method of case-recording to be kept by a number of hospitals and institutions giving radiological treatment so that it would in future be possible to place the results on a comparable basis. The report of the Radiological Sub-Commission also contained an account of the various methods used in three institutes

whose experience was specially great. It had been approved by the Cancer Commission, and subsequently by the Health Committee, and had provided the standard requirements for study, established on the highest authority.

There was no doubt that the question of cancer and its recurrence was daily engaging the attention of public opinion to an ever-increasing extent. The provisions made for early diagnosis and the expenditure of public money on radium showed that State authorities were increasingly concerning themselves with this disease. The suggestions of the Radiological Sub-Commission regarding uterine cancer were therefore of the greatest value, particularly as the knowledge desired had to come from different countries.

The work of the Sub-Committee on uterine cancer was so promising that it had been suggested that it should be extended at once to other sites of cancer—for example, to cancer of the skin, tongue and lip—where there was no doubt the same need for defining the stages of the disease and for comparing different forms of radiological application. After discussing this question with members of the former Cancer Committee and with the President of the Radiological Sub-Committee, however, he considered that it would be better from every point of view to concentrate during the coming year on the establishment of the system of uterine cancer which had already been laid down. It was not enough to have got the definitions and to have settled the case-taking forms; they had to be used, and the system must be such that the recorded results could be analysed at the end of three years when the facts about the survival of the case and its after-history were ascertained. A mere benevolent acquiescence in the system would not suffice. It was necessary to make sure that the system is being applied and kept up, and one must realise that it is one involving a good deal more trouble than that of the case-taking which has been adopted for other investigations put in hand by the Health Committee—for example, the case-sheets for syphilis treatment. During the coming year, therefore, it seemed desirable to take the greatest care in distributing the books of forms suitably, with the proper understanding with the institutes or hospitals which were going to use them. It seemed possible, in the case of certain countries, to secure that a responsible person should keep an oversight of the system and report on it from time to time. There had been a further and very useful suggestion that the help of a distinguished gynaecologist might be obtained for personal visits to certain of the most important centres with a view to getting the system still more fully established and understood. In this connection, he indicated the nature of the forms which had already been supplied for use in Great Britain and Norway. Corresponding books were now being prepared in French. Once we could be satisfied that the scheme for radiological record of uterine cancer was a live and working one, its extension to other cancer sites could be taken up with much greater effect.

He also considered, again after discussion with members of the former Cancer Committee, that it would be useful to continue collaboration with the Hygiene Section of the International Labour Office to obtain and circulate new data about industrial cancer.

If the immediate work for the next year was to be limited to these two objects, it appeared sufficient to carry it on from the Secretariat, in consultation with the Rapporteur, and that the reappointment of the Cancer Commission or of the Radiological Sub-Commission was not necessary, at any rate at this stage. He had agreed to act as Rapporteur for cancer questions to the present Health Committee, always in the hope that he would receive assistance from members of the Committee in the matter and that they would make suggestions for new lines of enquiry. At any future stage, and in relation to any aspect of cancer which seemed specially appropriate for international study, it would be possible to reappoint the Cancer Commission or start a special expert enquiry. If the former Cancer Committee had decided not to ask to be continued, the Health Committee would none the less wish to express its appreciation to them for the results which their work of the last five years had represented, and the same would certainly apply to the several distinguished statistical, clinical and other experts who had been associated with them.

The PRESIDENT thanked Sir George Buchanan for his report and his statement. The Committee would doubtless agree with his suggestions. On behalf of the Committee, he thanked the experts who had collaborated with the Cancer Commission for their admirable work. He would also thank Sir George for the distinguished manner in which he had presided over the Commission and for consenting to continue to act as Rapporteur. The Committee could feel assured that Sir George would miss no opportunity to take any action which might prove necessary in the future in so far as enquiries into cancer were concerned.

Dr. HAMEL said that, in Germany, a research organisation for cancer was in existence. While its work was mainly medical, it also dealt with propaganda and with the education of public opinion. Owing to the increase of cancer noted in the last few years, a new organisation had been set up to centralise all the efforts made to check the disease. Special institutes would be established throughout the country, and it would thus be possible to institute the early diagnosis of the disease and its speedy treatment. He could therefore support the proposals made by Sir George Buchanan.

Sir George BUCHANAN thanked Dr. Hamel. He had circulated to members of the Committee a recent pamphlet by the Ministry of Health (Circular 1136), which had been sent to the local authorities in England and which contained a full account of the appropriate action which those authorities should take.

#### 488. Alcoholism—Report of the Medical Director.

The PRESIDENT recalled the proposals made by the health administrations of Finland, Poland and Sweden in regard to a technical study of alcoholism. Representatives of these administrations had met in Geneva recently and had decided to ask the Health Organisation to examine the problem in its following four aspects: alcoholism and accidents; alcoholism and tuberculosis; alcoholism and venereal disease; and alcoholism and mental disease.

The Bureau of the Committee had examined these suggestions, and the President would submit to the Committee the following proposals:

1. The question of alcoholism in connection with accidents might present a certain interest. The Medical Director might be invited to prepare, in consultation with Dr. Carozzi, a note on the available literature on the subject. This information might meet the request presented by the three administrations. On the other hand, the Bureau was informed that Professor Liljestrand, one of the Swedish delegates, was proceeding very shortly to the United States, where he would engage in an experimental study of the best method for the determination of the presence of alcohol in the blood. Professor Liljestrand was so good as to promise to communicate the results of his studies to the Committee.

2. The proposal that the relationship between alcoholism and tuberculosis should be studied was too vague, and, in any case, in the Bureau's opinion, it would lead to no clear conclusions. The President would remind the Committee that a study of the incidence of tuberculosis in the three Scandinavian countries had been undertaken on behalf of the Committee some years ago, and the results of this study would be available very shortly. Copies of this report, when ready, might be communicated to the three administrations concerned, who expressed satisfaction at this procedure.

3. No useful purpose would be served by a study of alcoholism and venereal disease.

4. It did not appear clear to the Bureau what useful study could be made in regard to alcoholism and mental disease. After discussion, it appeared that the three administrations would be interested in obtaining statistical data regarding the incidence of delirium tremens in Scandinavian countries. This could be supplied without much difficulty.

5. Finally, the three administrations expressed a desire to receive information in regard to legislative and administrative measures adopted by certain countries for the control of the consumption of liquors.

The President thought that action along the abovementioned limited lines might be taken by the Health Committee in order to give satisfaction to the desires expressed by the three Governments and to bring to a close a correspondence which had now lasted over three years.

M. VELGHE was not very strongly in favour of the proposals made. They would not, in any case, have much practical effect. There was already quite a literature on the question of alcoholism. It was, of course, true that alcohol caused accidents, but what useful purpose could be served by throwing new light on this fact, which was already known? The same observation applied to alcohol and venereal disease, and to alcohol and tuberculosis. The enquiry did not seem to him to be of much use, because it would not be possible to reach any definite conclusion. Out of deference, however, to the three Governments concerned, he would not oppose their suggestion on the condition that too much time should not be wasted upon it. He was profoundly convinced that, in view of the very great amount of work devolving on the Health Organisation, the question of alcohol could be regarded as of lesser importance.

Dr. RAJCHMAN desired to reassure M. Velghe. The Committee should realise that the Section would undertake no enquiry and collect no statistics. In the very limited case of accidents, a bibliographical note would be prepared, in consultation with the International Labour Office. The statistics in regard to delirium tremens in the Scandinavian countries could be obtained in half an hour, for they were published and available. He shared M. Velghe's scepticism in regard to the results of the enquiry into alcoholism and accidents. The technical question of the determination of the amount of alcohol in the blood was of sufficient interest, he thought, to warrant the adoption of the procedure suggested—namely, that this study would be conducted, not by the Health Section, but by a member of the Swedish health administration, who would merely be asked to communicate his report when it was completed.

It might, however, prove useful to the Governments concerned, to present a note on the administrative measures adopted in the various countries for the control of the consumption of liquors.

Professor BORDER agreed with M. Velghe. While he would not oppose the suggested procedure, he would urge that any enquiries into alcoholism should be conducted in great secrecy, for, if public opinion felt any doubt that an International Committee of Health Specialists thought that alcohol played no part in the various diseases mentioned, a certain

degree of consternation might be caused. The Belgian Medical Association, for example, would doubtless unanimously condemn distilled alcohol; but, on the other hand, it would certainly not adopt the same attitude in regard to fermented liquors. In regard to alcohol and mental diseases, an enquiry seemed superfluous, because delirium tremens was comparatively rare. It had been stamped out in his own country.

Dr. CARRIÈRE also agreed with M. Velghe. He would remind the Committee, however, of the fanatical views of a certain section of public opinion in so far as alcohol was concerned. It was therefore impossible to refuse to take any action whatever without unnecessarily disturbing that public opinion. The President's suggestions could therefore, he thought, be adopted.

Dr. LUTRARIO agreed with M. Velghe. The explanations of the Medical Director had dissipated all his doubts. He would, however, support the views of Professor Bordet in regard to the distinction to be made between distilled and fermented liquors. The Assembly's resolution had made that distinction very clear, and had laid down that nothing was to be made in regard to wine, beer or cider. The Health Committee could not go beyond the very strict terms of that resolution. Distilled liquors were quite different from wine. Personally, he was convinced that good wine drunk in moderate quantities was in every way excellent.

Sir George BUCHANAN recalled the difficulties encountered by the Ninth Assembly in discovering a formula on which a general agreement could be obtained. Finally, a compromise had been achieved, and the resolution embodying it had been so carefully worded that any change would upset that compromise. The resolution definitely excluded wine, beer or cider. That being so, the Health Committee could not go beyond its terms. In so far, therefore, as the enquiry into alcohol and its connection with accidents was concerned, all accidents due to intoxication through the consumption of wine, beer or cider must be excluded if the terms of the Assembly's resolution were not to be broken. He saw no objection to a report on this matter being drawn up, but the Assembly's instructions should not be contravened.

If the suggestion that the administrative regulations of all countries should be collected were followed the Committee should do so on its own responsibility and not as a result of the Assembly's resolution concerning alcoholism.

Dr. RAJCHMAN explained the course hitherto taken. The Assembly had adopted a resolution at its Ninth Session which had been passed on to the Health Organisation. That Organisation had several times informed the Council that it was impossible to collect statistics of the kind desired. The Council had agreed with that view and it had finally been decided to ask the health administrations of the three countries concerned to say precisely in what manner the Health Organisation could assist them. After considerable delay, the Finnish Government had consulted the three administrations, with the result that the four points mentioned by the President had been drawn up by those administrations and submitted to the Committee. The suggestions of the Bureau in regard to those four questions represented the maximum action that should be taken. To recapitulate them in so far as alcohol and accidents were concerned, all that was asked was that a Swedish expert should communicate the report of his investigations into the question of the determination of the alcohol content of the blood, and that the Health Section, with the International Labour Office, should prepare a note on the documentation available in regard to accidents and alcohol. In so far as tuberculosis and alcohol was concerned, the three countries would receive copies of the report of the five years' study of the incidence of tuberculosis in the Scandinavian countries, carried out by very competent Norwegian, Swedish and Danish investigators on behalf of the Health Organisation.

Figures for delirium tremens in those countries would be supplied to the three administrations concerned.

The only point of real utility was the note on the legislation and administrative regulations governing the control of the consumption of liquor.

Dr. JITTA agreed with M. Velghe. There was very little alcoholism in Holland owing to a change in the manners of the people and to the new legislation recently enforced. The legislation of the various countries in connection with alcohol could be collected and put at the disposal of any country which desired to consult it.

Dr. CHODZKO was prepared to accept the proposals of the Bureau. If they were not accepted, then the Health Committee should frankly state that it could not take up the question of alcohol. To do so, however, would, he thought, be a pity and create a bad impression. He therefore agreed with the Medical Director, and hoped that the suggestions made by the Bureau would be adopted.

Sir George BUCHANAN repeated that he had no objection to the collection by the Health Section of information concerning the administrative regulations controlling alcohol in force in the various countries. This, however, had nothing to do with the resolution of the Assembly and should, therefore, be undertaken as something quite distinct.

Dr. RAJCHMAN said that the Health Section would take no action unless as a result of a direct resolution of the Health Committee. Sir George Buchanan could be assured that the Assembly's resolution would not in any way be circumvented. In so far, for example, as the collection of the administrative regulations were concerned, it would be quite possible to leave out those regulations which dealt with wine, beer or cider.



M. VELGHE proposed that the Secretariat should be requested to study the question and collect the material available, and that at its next session the Committee should discuss what action to take with regard to the Assembly's resolution.

The PRESIDENT thought that, after the discussion which had taken place, his proposal might be approved.

Dr. LUTRARIO pointed out that it was necessary to discriminate in collecting documentation. The real position was sometimes misrepresented in the documents of certain abolitionist associations.

Dr. RAJCHMAN understood, after M. Velghe's intervention, that the proposal was as follows :

For the moment, no reply would be given to the three health administrations. The Secretariat would be requested, in the first place, to study, with the International Labour Office, the question of alcohol and accidents. Dr. Rajchman would, however, prefer not to accept the task in those exact terms. For the moment, he would prefer simply to consult Dr. Carozzi as to proposals to be submitted to the Health Committee.

M. VELGHE had no objection.

Dr. RAJCHMAN continued that, in the second place, the Secretariat would be requested to collect and place at the disposal of the Committee information on the control of the consumption of spirituous liquor in selected countries.

Only then would the Committee decide what reply to give to the three Governments.

M. VELGHE pointed out that, by legislation, also the effects of legislation should be understood.

Dr. RAJCHMAN explained that the Secretariat should draw no conclusions, but that the countries would communicate their own conclusions.

In the third place, the Secretariat would forward to the three health administrations a copy or copies of reports on the incidence of tuberculosis in the Scandinavian countries. The President would himself obtain figures in regard to delirium tremens in the Scandinavian countries.

Referring to the second point—information on the control of spirituous liquor—Sir George BUCHANAN said that the original request was for statistical information, and the Committee should be free, in replying to Finland and the other Governments, to confine itself to giving such information.

Dr. RAJCHMAN wished to make a very strong appeal to the Committee not to request the Secretariat to collect information for no particular purpose. It was already overwhelmed with useful work, and it would be useless to collect material unless it was to be utilised.

Sir George BUCHANAN remarked that it was only statistical information that was required by the resolution of the Assembly.

Dr. VELGHE noted that as Dr. Rajchman had stated the position so clearly, no formal resolution was required.

*The Committee agreed.*

#### 489. Monthly Epidemiological Reports.

Dr. RAJCHMAN said that he owed Sir George Buchanan an explanation in regard to the article on smallpox in the monthly reports. He regretted that it was quite true, as Sir George Buchanan had pointed out, that the cases of serious smallpox caused by infection on the *Tuscania* were not sufficiently distinguished in the article from the milder cases which had occurred in England.

Dr. Rajchman would always be very grateful if any errors or inaccuracies in the reports could be pointed out as soon as possible.

Sir George BUCHANAN said that he would be glad to comply with Dr. Rajchman's request. He had drawn attention to the report in question because there were three or four other equally glaring errors in the report. It was important that the statements contained in the epidemiological reports should be as accurate as possible.

Dr. RAJCHMAN hoped that the discussion would not leave an impression that there were errors in all the reports.

#### 490. Miscellaneous.

##### IMPROVEMENT OF PENAL ADMINISTRATION.

Dr. RAJCHMAN explained that two voluntary international associations were interested in the improvement of penal administration. One of them—The Howard League for Penal Reform—had submitted to the Secretary-General a memorandum drawing the attention of the League of Nations to the urgent need for reform in penal administration, and had made

a series of specific suggestions. That memorandum had been communicated by the Secretariat to the second association—The International Prison Commission—which was of a semi-official character, and that organisation in its turn had submitted a note containing a draft set of rules.

The question had been discussed by the Fifth Committee of the Assembly, which had recommended that the draft rules should be forwarded to all the States Members of the League, who should be asked for their observations before the next Assembly. At the same time, copies had been forwarded to the various technical organisations of the League of Nations with the request that they should study the rules and make observations within the sphere of their own competence.

On the proposal of the President, *the Committee appointed the following sub-committee to consider and report on the matter* : Dr. HAMEL (Chairman), Dame Janet CAMPBELL, Professor FITZGERALD, and Professor SCOSERIA.

#### REQUEST OF THE WOMEN'S CO-OPERATIVE GUILD (*Document C.H. 862*).

Sir George BUCHANAN said that he had been asked by the department concerned to bring forward the petition of the Women's Co-operative Guild concerning maternity and child welfare. The matter had, however, already been dealt with automatically during the discussion on the work of the Committee, and if the latter agreed that a sufficient reply could be given on the basis of the programme framed for the "Reporting Committee for Maternal Welfare and Hygiene of Infants and Children of Pre-school Age" he would consider that appropriate.

Dame Janet CAMPBELL agreed with Sir George Buchanan.

*The question of an enquiry into maternity and child welfare was referred to the Reporting Committee for Maternal Welfare and Hygiene of Infants and Children of Pre-school Age.*

#### REPORT OF THE SUB-COMMITTEE ON THE PRICE OF RADIUM.

Dr. HAMEL submitted the report of the Sub-Committee (*Annex 17*).

*The proposals contained in the report were adopted.*

#### CREATION OF AN INTERNATIONAL INSTITUTE FOR NUTRITION (*Document C.H. 903*).

Dr. RAJCHMAN said that the Committee requested him last year to submit a report on the proposal of the French Government for an international study of the problem of nutrition. It would no doubt wish him to examine the scheme of the International Council of Women in the light of the French proposal and to present a memorandum on the whole subject at the next session of the Committee.

*This question was adjourned to the next session.*

#### RESOLUTION OF THE NATIONAL COUNCIL FOR MENTAL HYGIENE.

Dr. RAJCHMAN suggested that the consideration of the question of mental hygiene be deferred to a later date.

*The matter was adjourned to a later session.*

#### INVITATION OF THE INTERNATIONAL CONGRESS OF TROPICAL MEDICINE.

The Committee noted that this Congress would be held in May 1932.

#### ESTABLISHMENT OF AN INTERNATIONAL ORGANISATION FOR THE UNIFICATION OF PHARMACOPŒIÆ.

*This question was adjourned.*

#### LETTER FROM SIR GEORGE BUCHANAN DATED AUGUST 15th, 1930 (*Document C.H. 897*).

The PRESIDENT thought that the discussion on the future working of the Health Organisation had been very useful. He hoped that satisfaction had been given to Sir George Buchanan and the other members.

Sir George BUCHANAN expressed his thanks to the President and Bureau.

#### 491. Resolutions of the Sixteenth Session of the Health Committee.

Dr. RAJCHMAN read the resolutions on the work of the sixteenth session of the Committee. *These resolutions were adopted with draft amendments.*

RESOLUTION CONCERNING A MEETING OF MEDICAL DIRECTORS IN COLONIAL MINISTRIES.

Professor Ricardo JORGE noted that the sphere of action of the Conference on Colonial Medicine had been limited to African possessions. He favoured this limitation, which conferred a geographical unity and a community of views on the Conference, since the health problems in the various African Colonies are practically the same. But, since the Conference had assumed this geographical character, African States would naturally be invited to participate.

The Conference was of particular interest to Portugal, and he would advise addressing the invitation in this case directly to the Government. He was personally prepared to recommend the Conference as being necessary.

*The resolution was amended in order to give satisfaction to Professor Jorge.*

Dr. RAJCHMAN said that the enquiry would be carried out in accordance with the usual methods of the Secretariat.

492. Close of the Session.

The PRESIDENT thought that the sixteenth session had been very successful. He thanked the experts who had been good enough to attend the session, the members of the Health Committee and M. Velghe. The collaboration with the Office international d'Hygiène publique had been very valuable. He wished also to thank Dr. Rajchman and his staff.

Dame Janet CAMPBELL was sure the Committee would desire to express to Dr. Madsen its deep appreciation of the able and gracious way in which he had conducted its meetings. It was not easy to preside over an international committee which was examining very delicate and complex questions, and the Committee could congratulate itself on its President.

Dr. RAJCHMAN wished to be allowed to associate the Health Section with the congratulations offered by the Committee on the reappointment of the President for a new period of three years, which he believed would be a memorable period.

That the Health Committee had succeeded in attaining world authority was amply illustrated by the numerous requests of health administrations of an ever-increasing number of countries for technical information and advice.

At this session, the Committee had decided to deepen the work of its predecessors in various directions and had set up new Reporting Committees in the several fields of public health. The technical Secretariat, on whose shoulders it lay to act upon the decisions and prepare the work of the Committee, was somewhat embarrassed by the programme before it, which was really formidable. The Secretariat needed, not only a lead from the Health Committee, but also its practical co-operation, and it would no doubt be found necessary during 1931 to convene the Bureau on several occasions for the consideration of questions referred to it by the Committee. The task entrusted to the Secretariat was now so comprehensive and so important that the Medical Director thought it essential to obtain as close a collaboration as possible with the Committee through its Bureau.

He apologised for referring to the matter, but wondered whether the members realised the importance of the rôle played by the Health Organisation in the general activity of the League of Nations. He believed it was the unanimous opinion of the delegations to the Assembly that the Health Organisation, together with two or three others, was in the fortunate position of having its authority accepted without discussion, and even of its work being considered as one of the most important elements in the activities and success of the League.

The Health section was glad that, at a time when a very difficult period was approaching for most of the countries of the world, the work of the organisation had been so clearly outlined that it was feasible to count on the possibility of carrying it out.

The members of the Health Section aspired to the accomplishment of their work in such a manner that no one could dispute its technical authority and competence; but their hope was that it might be regarded as a useful contribution to the realisation of the essential object of the technical activities of the League—namely, a clear and unmistakable demonstration of the effectiveness and genuine impartiality of international collaboration.

Professor BORDET said that, as a new member, he would like to say how glad he was to be able to participate in the activities of the Health Organisation. He was sure that all the new members would do their best to contribute to the efficacy of its work.

The PRESIDENT noted that the Committee was glad to hear from Dr. Rajchman that its work was so useful to the general mission of the League of Nations. That was in great measure due to the spirit which prevailed in the Health Section, to its admirable Director and his well-chosen team.

He declared closed the sixteenth session of the Health Committee.

ANNEX 1.

AGENDA OF THE SIXTEENTH SESSION OF THE HEALTH  
COMMITTEE.

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1. Constitution of the New Health Committee and Programme of Work.
  2. Decisions of the Council and Resolutions of the Assembly.
  3. Report of the Medical Director on the Work of the Health Organisation since the Fifteenth Session of the Health Committee.
  4. Proposals of the National Government of the Republic of China for Co-operation with the League of Nations in Health Matters. Completion of the Survey of Chinese Ports and Report on the Re-organisation of the Port Health Services in conformity with the Request of the National Government of China.
  5. Report of the Malaria Commission. Studies of its Special Sub-Commission in India. Recommendations adopted at the Session held at Algiers on May 25th, 1930.
  6. Report on Leprosy.
  7. Reports on the Conferences of Directors of Schools of Hygiene held at Paris on May 20th and at Dresden on July 14th, together with the Memorandum of the President of the Commission on Education in Hygiene and Preventive Medicine.
  8. Enquiry into Health Conditions in Certain Islands of the Pacific.
  9. Opium.
  10. Miscellaneous.
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ANNEX 2.

C.H. 918.

MEMORANDUM BY THE PRESIDENT ON THE PROGRAMME  
OF WORK OF THE HEALTH COMMITTEE.

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The new Health Committee may wish, before engaging on its work, to look back on the work of its predecessors, in order to ensure continuity in the activities.

The effort of the past nine years found an admirable summary in the report presented to the Assembly of the League by the Rapporteur on Health, Miss Susan Lawrence, Parliamentary Secretary to the Ministry of Health in London. Miss Lawrence stated that :

“ Each separate question naturally passes through three stages—that of study and the collection of information ; that of forming general judgments on the basis of the material collected ; and, then, finally a stage of action. And, speaking quite broadly and generally, we may say that the nine years' work of the Health Organisation of the League corresponds roughly to those three stages ; although, obviously, the last stage, that of action, will generally be carried out, not by the League, but by the individual Governments united here in a common purpose.”

The examples quoted by Miss Lawrence in her report (document A.56.1930.III) may easily be multiplied by reference to the work actually in progress, as outlined in the Medical Director's report (document C.H.891). It may be emphasised, however, that, while our Health Organisation has now reached a stage at which Governments are applying to it for advice in increasing numbers, the essential work of special studies, and no less indispensable confrontation of the results of national experiences, must be continued. Certain of our activities have come to be looked upon by Governments, by sanitary administrations and by scientific institutes, as practically permanent in character. The best example of this is to be found in the work of the *Permanent Standardisation Commission*, dealing with serological and biological standards. This type of work must necessarily be continuous, since it is dealing with the evolution of scientific thought and method, which brings in its trail new problems every year.

The work of the *Opium Commission* affords another example, since current questions, arising out of the obligations imposed upon the Health Committee by the International Opium Convention, have to be continually referred to its Opium Commission.

Again, there is the *Malaria Commission*, which has succeeded, after a long initial period of regional studies, in coming to agreement on a general programme of anti-malarial measures, and which will, at this session, propose a plan of epidemiological study and of practical measures which will certainly require at least three years to complete.

The work of the *Leprosy Commission*, which was set up a year or two ago, is only now starting work in earnest, after the completion of a preliminary world-survey of Leprosy conditions, which is summarised in an admirable report to be presented at this session of the Committee.

There are also certain partial studies, such as those relative to *scarlet fever and diphtheria*, which must continue to be reported upon to the Health Committee from time to time by the investigators entrusted with the task.

The departmental activities of the Health Section in regard to *epidemiological intelligence*; to continuous liaison work with the sanitary administrations (particularly by means of the "interchange" system, the utility of which is universally recognised, and concerning the development of which important proposals are being referred for the technical study of the Committee); and to the manifold partial studies, investigations and enquiries with which it is entrusted to an ever-increasing degree, do not need explanation in detail, for they are self-evident and clearly presented in the Medical Director's report. This activity is obviously the backbone of the Organisation—namely, its executive work, ensuring the continuity and systematic application of the decisions of the Health Committee.

Other studies undertaken in the past have necessarily been of a temporary character—as, for example, the study of the *fumigation of ships*, for which a special Commission was set up. It has not yet presented its report, and will complete its studies during the existence of the present Health Committee.

The Chairman of the *Commission on Education in Hygiene and Preventive Medicine*, in his report which is now before the Committee, suggests that a new method of dealing with the programme might usefully be adopted by the Committee.

The studies in regard to *smallpox* have already resulted in valuable work in regard to the standardisation of vaccine lymph, and useful information in regard to the epidemiology of encephalitis has been collected.

As regards *cancer*, while it was obviously impossible for the Health Committee to engage in pure research, a number of practical problems of immediate importance were selected for study, and valuable reports have been presented. Further practical proposals for study—perhaps not by a committee—are outlined by the Chairman of that Commission.

In another domain, a distinguished group of experts on *infant mortality* has presented particularly useful conclusions, as a result of long and painstaking studies. Here, again, the main subject of the enquiry having been dealt with, a few special problems, facing various countries in different continents, still remain to be dealt with.

However, it is not the intention to analyse one by one the Health Committee's various studies, already undertaken or now in course of completion. The above remarks furnish instances of the type of work which will obviously have to be continued, though perhaps in a somewhat modified form.

We are now called upon to develop our collaboration with those Governments which are asking the Health Committee to formulate advisory opinions, not only on the *organisation of public health services*, but also on methods to be employed and the technical schemes to be adopted in dealing with the manifold administrative and medical problems in the field of public health.

When giving this advice, we cannot refer solely to our individual experiences; it must represent the considered opinion of a body such as our own, abounding in the experiences of many countries, and it must be based on the personal competence of many leaders in public health and medical research. What is expected of us is a technical opinion, based on an analytical comparison of all this experience and this knowledge, so that the advice tendered by our International Committee may constitute a declaration of the present state of practice and of knowledge in the various fields of public health.

Such a declaration is needed, notably in regard to *maternal and infant welfare*. A large amount of information has already been collected, either by our group of experts on infant mortality or by our other commissions, as well as by the Health Section. But a general report on the whole subject is now required which would be of material assistance, not only to health administrations which have asked for our collaboration in this field, but also to others which desire to organise a campaign against infant and maternal mortality in their own countries. The hygiene of the child of school age and of the adolescent is another problem which needs similar study. The measures to be taken against tuberculosis in the various countries must be studied—perhaps even more urgently than others, in view of the demands being made upon our advisory faculties in this direction. A comprehensive documentation has already been collected during the past years and will form a useful nucleus for a general report.

The work of the *Commission of Experts on Treatment of Syphilis and Cognate Subjects*, as well as the numerous studies in regard to the serological diagnosis of syphilis, will likewise form an indispensable basis for a report on the measures to be taken against venereal disease, including that of congenital syphilis.

During the last ten or fifteen years, sanitary administrations have had to take measures against other social diseases. Cancer, rheumatic fever and heart diseases may be mentioned in this connection. This group certainly merits serious study, and an attempt to present a series of reports on these subjects.

Among the methods in the practice of public health, particularly in rural areas, there is one which calls for a specific study on our part—namely, health centres. The study of this problem was started a year or two ago and needs to be brought to a conclusion.

Finally, the whole question of the rôle of local authorities in the administration of medical assistance will undoubtedly force itself on the Committee's attention.

What is the method of study which should be adopted in these last-named seven fields of investigation?

No new enquiry or research is needed. What we require is: an analysis of the reasons which have led various countries with special experience in the respective fields to adopt specific measures; the determination of the extent to which agreement exists as between

these various experiences (this agreement permitting the formulation of the general declaration referred to above); and to ascertain the particular points in regard to which the diversity of practice is so extensive as to require further practical investigation.

This is the kind of report which should be presented in regard to each one of the seven fields indicated.

There should be no insuperable difficulty in presenting such reports within six to twelve months' time, if their preparation be entrusted to a small "drafting committee," under a chairman, with the assistance of three or four experts possessing special knowledge, and with the option of consulting any other technical officers or competent authority in the course of the work.

These drafting committees would not constitute commissions in the strict sense of the word. Their report would be submitted for a thorough discussion by the Health Committee, which alone would be competent to adopt, after debate, a declaration which would engage its technical authority. Indeed, whereas the Health Committee must rely upon the opinion of its technical advisers—either commissions or outside experts—in several purely technical domains, the type of problem to be dealt with by these drafting committees is essentially one which the Committee itself must define and decide.

The *Joint Commission* set up by the preceding Health Committee, in collaboration with the International Labour Office, for the study of *health insurance* has not yet presented its report, and it may be asked whether the preparation of so important a report would not be greatly facilitated—if, indeed, it is not the only possible method—by our adoption of the several general reports relative to practice in the fields of public health, as outlined above. The modern practice of preventive medicine must be set out by us in detail, and this contribution of the Committee towards the joint study of health insurance may prove of fundamental importance.

\* \* \*

The programme of activity of a modern school of hygiene was elaborated a few months ago by a group of the Directors of such schools in Europe and America, and this programme is being communicated to the Committee at this session. These modern schools play an increasingly important rôle in the development of public health activities in various countries and we should certainly acquiesce in the recommendation made that the conferences of these Directors should be made periodic, in order to allow of a continuous interchange of ideas and experiences between the schools, both those of long standing and those newly established in various countries, in some cases with our advice and collaboration.

The preceding Health Committee was requested by the Government of China to assist in a survey of medical schools and in the work of the National Commission on Medical Education in China. This assistance, as is shown in the reports before us, is being rendered. The request of the Chinese Government would appear to be very characteristic and logical, as, indeed, no study of the public health situation in a given country can be complete without a survey of the conditions under which the medical profession is prepared for its task. This very question is looming large even in countries with a full and old-established experience of medical science and medical education. The study of this problem cannot be omitted from the programme of our Committee, and we shall have to consider the best methods of approaching so important and so delicate a task.

While these various studies relate to problems applicable to all countries, there is no doubt that the facilities afforded by the Health Organisation should also be available in future—as they have been in the past—in regard to the medical and sanitary problems with which colonial administrations are faced. The studies of sleeping-sickness, the "interchanges" in Africa, and the facilities for colonial laboratories are instances of effective liaison arranged in the past; and it may be asked whether a commission, composed of the medical directors of the various Colonial Ministries, would not constitute the best instrument of continuous collaboration in these matters, and the most appropriate method of utilisation by the various colonial territories of the facilities available in the Health Organisation?

The highly important *problem of nutrition* had already been included in the programme of work of our predecessors, although no definite proposals have yet been framed. The time has certainly come when the Committee should consider in what practical field such studies should be begun. In the Far East, more than in any other part of the world, the problem of nutrition is one of fundamental importance in public health, and an investigation of the use of one of the staple foods of the teeming populations of those great countries—namely, of rice—appears to claim our early attention.

The question of *physical education* was likewise considered by our predecessors as an appropriate subject of study, and the information collected by certain of our colleagues, as well as by the Health Section, would appear to justify the appointment of an expert group to consider this material.

There thus opens before the new Committee a very wide field of endeavour, of study and of practical effort. It is well worth a detailed debate, and the general headings here indicated may perhaps facilitate the discussion, which it is hoped will lead to the adoption of a general programme and the constitution of the requisite commissions and groups of experts.

Your newly constituted Bureau may perhaps, at the conclusion of this detailed debate and the discussion of the Medical Director's report on the current work of the Health Organisation, make suggestions for your consideration as to the composition of the various groups and commissions.

REPORT BY THE MEDICAL DIRECTOR ON THE WORK OF THE HEALTH ORGANISATION SINCE THE LAST SESSION OF THE COMMITTEE

(March 1930–September 1930).

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I.

**DECISIONS OF THE COUNCIL ON THE WORK OF THE HEALTH ORGANISATION**

The resolutions adopted by the Health Committee during its fifteenth session held at Geneva from March 5th to 8th, 1930, were approved by the Council during its fifty-ninth session in June 1930.

1. The Rapporteur for health questions, M. de Agüero y Bethancourt (Cuba), called the attention of the Council to the letter from the Secretary-General relating to the nomination of members of the Health Committee (*Official Journal*, 11th Year, No. 6, Annex 1218), pointing out that this letter contained the proposals which the President and Vice-President had been authorised by the retiring Committee to submit to the Council.

The following resolution was adopted:

“ The Council,

“ Approves the proposals relating to the nomination of members of the Health Committee, to be found in the note from the Secretary-General;

“ Requests the Secretary-General to convey to the members of the late Committee the Council's appreciation of their services.”

2. Proposals of the National Government of the Republic of China concerning the co-operation of the League of Nations in health matters.

The Minutes of the Council on these proposals are summarised in the relevant section of this report.

The following resolution was adopted:

“ The Council,

“ After examining the proposals of the National Government of the Republic of China for co-operation with the League in health matters;

“ Accepts the recommendations of the Health Committee that the Council should approve of the entire programme of collaboration presented by the Chinese Government as set forth in the Medical Director's report, and

“ Decides that the Medical Director should be asked to ensure the assistance of the Health Organisation in carrying out that programme.”

3. Appointment of a German member of the Committee of Experts for the Co-ordination of Research on Trypanosomiasis (Sleeping-sickness).

The Rapporteur on health questions called the attention of the Council to the letter of the President of the Health Committee asking that a German expert be attached to this Committee.

This request was approved by the Council.

The Committee will be pleased to learn that Professor Max TAUTE, Counsellor on Medical Questions at the Ministry of the Interior, Berlin, has accepted membership on this Committee.

4. In his report to the Council on the work of the Health Committee during its fifteenth session, the representative of Cuba mentioned the decisions of the Health Committee with regard to the exemption or inclusion of certain preparations, under Articles 8 and 10 of the International Opium Convention of 1925, which are mentioned elsewhere in this report. He also described the Committee's recommendations concerning the request of the Government of Bulgaria for the assistance of the Health Organisation in the campaign against syphilis in certain areas. Reference was made to the request of the Government of Uruguay that the Health Committee should appoint a delegate to preside over the South American Serological Congress, to be held at Montevideo in September 1930.

With regard to the Health Committee's resolution on the budget for 1931, in which reference was made to the sum of approximately 190,000 francs needed for carrying on the work in the Far East and for the expenditure on the Eastern Bureau not covered by the subsidies accorded by the Governments of the various Far-Eastern countries, the Rapporteur called attention to the statement of the Committee that, if this increase were not granted, it would be impossible to provide the sum needed out of the credit of 1,000,000 gold francs appropriated for the general work of the Health Organisation, and suggested that the Council should ask the Assembly and the Supervisory Commission to consider this resolution in the spirit of the decisions of the last Assembly on the budget of the Health Organisation.

On the motion of the Rapporteur, the following resolution was adopted:

“ The Council,

“ After examining the report on the work of the fifteenth session of the Health Committee,

“ Approves all the recommendations submitted as well as the observations of the Rapporteur.”

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II.

COLLABORATION WITH THE MINISTRY OF HEALTH OF THE NATIONAL GOVERNMENT OF THE REPUBLIC OF CHINA.

The proposals of the National Government of the Republic of China for collaboration with the League in health matters, the adoption of which were recommended by the Health Committee in March last, were approved by the Council at its fifty-ninth session in May. M. Woo Kaiseng, representative of China in Geneva, attended on behalf of his Government on this occasion, when the British, German, Japanese and Polish members of the Council spoke as follows regarding the proposed collaboration:

Mr. Henderson (Great Britain) said that, when this matter had come before the Council in September 1929, he had expressed the hope that the League would be able to assist the National Government of China, not only in connection with quarantine in Chinese ports, but also in organising a general health service for the benefit of the Chinese people as a whole. He was glad that, in the short time which had since elapsed, such great progress towards this object had been made, and he was sure that every member of the Council was delighted with the proposals upon which the Chinese Government and the Health Committee had agreed.

Dr. Curtius (Germany), in adhering to the report, was glad to note that an opportunity had been seized of instituting in this special field co-operation between the League and China. The League should, he thought, always interest itself in the desires and needs of that country which was such an important Member of the League of Nations.

M. Zaleski (Poland) said that he appreciated at their true worth the steps already taken by the Chinese Republic in the work of reorganisation and reconstruction, and wished all success to the work in which the League was now asked to help. He hoped that, in the future, other opportunities would occur for showing the League's desire to strengthen the common bonds between China and the League, and to offer her, through its technical organisations, the experience possessed by the League in regard to reorganisation.

M. Nagai (Japan) said that the development of co-operation between the League and China was of great interest to his country, as a neighbour and friend of China, and marked a fresh stage in the League's work in the Far East.

M. Woo Kaiseng, representative of China, described the reasons underlying the request of his Government and expressed his satisfaction at the result of the Mission which the League had sent to China.

The President of the Council felt that the co-operation of the Health Organisation with China was one of those works of mutual assistance for which the League had been established and which were of benefit to all its Members.

It will be remembered that, in the plan drawn up by the Ministry of Health of the National Government (see document C.118.M.38.1930.III), various forms of collaboration are described, and the Medical Director has to report the effect given to these proposals since the last session of the Health Committee, as follows:

I. REORGANISATION OF THE QUARANTINE SERVICES OF CHINESE PORTS.

(a) The Chinese Minister of Health, in requesting the League's collaboration in the transfer of the quarantine services from the Ministry of Finance to the Ministry of Health, asked that the Health and Transit Organisations should study jointly measures required for the transfer and reorganisation of these services.

The Health Committee, at its fifteenth session, in March 1930, on the recommendation of a specially appointed Commission, adopted the following resolution:

" The Health Committee,

" After study of the proposals of the National Government of the Republic of China concerning the collaboration of the League of Nations in the reorganisation of the quarantine services of the Chinese ports, and on the advice of the Commission for Quarantine Measures in China designated during the present session:

" (1) Accepts the proposals made by the Chinese Government to obtain the benefit of the experience of health services in other countries in the reorganisation of the present quarantine services.

" (2) Approves the arrangements proposed by the Health Section that Dr. Park should visit China forthwith, in order to complete the survey which has already been begun and report to the Commission thereon at an early date. In his report, Dr. Park should give special consideration to the possibilities of the satisfactory application of the provisions of the International Sanitary Convention of 1926.

" (3) Notes that the Commission has given Dr. Park certain guiding lines for this survey. These include the sanitary equipment of ports, the nature of the action to be taken

against the importation and exportation respectively of infectious diseases, and the measures needed to deal with the special conditions of coastal traffic.

“ Notes that, on the completion of Dr. Park’s survey, he will present proposals for consideration by the Commission regarding the scheme to be submitted to the Chinese National Government.

“ (4) Requests that the Commission, in so doing, should confer with any experts who may be delegated by the Communications and Transit Organisation of the League, in conformity with the request of the Chinese Government, before submitting the scheme to the Health Committee.”

The Transit Committee, at its fourteenth session, noted the request of the National Government of the Chinese Republic, communicated by the Medical Director, and in response thereto, authorised its Secretary-General to give every assistance, and nominated the three following experts: M. P. G. HÖRNELL (Member of the Swedish Academy of Technical Sciences; Professor at the Royal Polytechnic High School; Member of the Advisory and Technical Committee on Communications and Transit), Sir Alan ANDERSON (Vice-President of the Chamber of Mercantile Marine of the United Kingdom; Member of the Permanent Committee for Ports and Maritime Navigation) and M. A. G. KRÖLLER (Member of the Economic Council of the Netherlands Foreign Ministry; Member of the Permanent Committee for Ports and Maritime Navigation) to confer at the appropriate time with the Health Committee’s special Commission.

(b) The detailed survey of some of the Chinese ports in which the Ministry of Health proposes to take charge of the quarantine services in the first instance has been carried out, as arranged, by Dr. C. L. PARK of the Health Section, who arrived in China in mid-April and finished his survey by the middle of June. He will hold further consultations with the Chinese authorities before sailing for Geneva in August. His detailed report on the subject will form a separate document, to be presented to the Health Committee’s special Commission in September. It is expected that, on the basis of this Commission’s deliberations, the Health Committee will be enabled to make recommendations to the Chinese Ministry of Health before the end of the year 1930.

(c) The Minister of Health nominated Dr. Eu Ya CHING, of his Ministry, to take part in the study tour of port health procedure in the East. This study tour, which began on June 27th at Singapore, is to examine port health procedure in the Netherlands East Indies, Saigon, Hong-Kong, Canton, Manila, Yokohama, Tokio, Kobe and Dairen. The final conference will be held at Tokio on August 19th, and a full report will be presented later in a separate document.

(d) Dr. E. B. YOUNG, Vice-Superintendent of Yung-kao Quarantine Hospital, was nominated by the Minister of Health to study port health procedure in Europe and America with the help of the Health Organisation. Splendid facilities were offered by the central and local health authorities in Germany, Great Britain and the United States, and Dr. Young has become familiar with port health practice in Hamburg, Bremerhaven, London, Liverpool, and New Orleans. Dr. Young also paid short visits to Amsterdam, Montreal, New York and Baltimore. It is expected that one or more Chinese port health officers will be able to carry out similar studies next year, and the nomination of one has already been put forward by the Ministry.

## 2. ESTABLISHMENT OF THE CENTRAL FIELD STATION (NATIONAL FIELD HEALTH SERVICE).

(a) In order to comply with the request of the Ministry of Health concerning a plan for the Central Field Station at Nanking, the Health Committee requested the Directors of the principal Schools of Hygiene, who met at Paris in May, to advise on the organisation of the new centre. A memorandum was accordingly drawn up, indicating the duties of this centre as the technical organ of the Ministry of Health.

(b) The services of Dr. B. BORČIĆ, Director of the Institute of Hygiene at Zagreb, were secured by the League for a period of two years in order that he might be delegated to assist the Ministry of Health during the establishment and development of the new station. Dr. Borčić left Europe on June 27th, taking with him, as requested by the Minister of Health, detailed plans and lists of equipment for the new buildings. The latter informed us, on April 11th, that negotiations were proceeding for the purchase of the necessary land.

(c) Fellowships. — Dr. CHEN WAN-LI was nominated by the Minister of Health to study, with the help of the Health Organisation, health institutions and hospitals in Europe (Yugoslavia, Hungary, Denmark and Poland). He arrived in Europe in March, and has been given every assistance by the health administrations concerned. In the autumn he will return to China to take up his duties as Public Health Commissioner of Chekiang Province.

Dr. L. C. YEN, Chief of the Medical Administration in the Ministry of Health, has also carried out a study tour in Europe and America. After visiting Yugoslavia, Hungary and Germany,

he participated in the first part of the study tour in France. After a short visit to England, he returned to China, via the United States, spending a few weeks visiting important medical and health centres in that country. He was expected in China by the end of September.

### 3. THE NEW NATIONAL HOSPITALS.

(a) Dr. OONG-TSE-LUNG, who is to become Superintendent of the new hospital in Chekiang Province (he is now Superintendent of the Chungshan University Hospital at Canton), is expected in Europe early next year, where he will be given every facility for obtaining the information he requires. The Austrian health authorities have made arrangements for his studies in one of the largest hospitals in Vienna.

The Minister of Health informs us that the sum of 200,000 Mexican dollars has been earmarked in the budget of Chekiang Province for this hospital for the fiscal year commencing July 1st.

(b) The Minister of Health also reports that a mobile hospital is now working in Nanking, known as the Central Hospital of the Ministry, to which a special monthly grant of 25,000 Mexican dollars is allotted. This hospital, when certain additions and improvements have been made, is expected to be an efficient and serviceable institution, and will serve as the nucleus of the first National Hospital.

### 4. MEDICAL EDUCATION.

(a) The services of an expert have been secured to take part in the studies of the Chinese National Commission on Medical Education, in the person of Dr. Knud FABER, Professor of Internal Medicine at Copenhagen University. Dr. Faber left Europe on September 1st to consult with the National Commission and to make a two-months' survey in China. On his return, he will present a report containing conclusions which, it is expected, will form a basis for the recommendations of the Health Committee to the National Government.

(b) Dr. F. C. YEN, Dean of the Central University Medical College at Woosung, Shanghai, has accepted the invitation to become a member of the Health Organisation's Commission on Education in Hygiene and Preventive Medicine.

### 5. CONTROL OF SMALLPOX AND CHOLERA IN SHANGHAI.

With a view to establishing a programme of definite collaboration in this matter between the Health Departments of Greater Shanghai and the two Foreign Concessions, the Minister of Health requested the assistance of the Director of the Eastern Bureau, and the Medical Director also arranged for the Chief Statistician of the Health Section to visit Shanghai during his mission in the East. In January 1930, during his visit to Shanghai, the latter prepared a preliminary memorandum for the Minister of Health on the smallpox and cholera situation, after studies made in Greater Shanghai and in the two Concessions.

A first conference was arranged and presided over by the Minister of Health in Shanghai on December 28th, at which the Medical Director was present, and which was attended by health officers of the three municipalities. At a second conference, on March 3rd, it was decided that May 15th should be "Cholera Day", when an attempt at mass inoculation against cholera should be begun officially in the three municipalities. In order to facilitate the epidemiological study of the disease it was agreed that hospitals, health officers and private physicians should employ a uniform record-form for cases of cholera. Methods of enlisting the public interest in the anti-cholera campaign were decided upon. Effective measures for the control of junk traffic were discussed, and the necessity of using every effort to control the water and food supply was emphasised.

At a third conference held on May 9th, at which Dr. WU LIEN TEH, Dr. PARK and Dr. GAUTIER were present, each municipality reported progress made in the campaign. The International Settlement and the French Concession had appropriated 5,000 and 12,000 taels<sup>1</sup> respectively for the work, and each had organised one travelling and two stationary dispensaries to carry out the inoculations. In the International Settlement, the "Mill Owners' Association" had been asked for their support, and sufficient anti-cholera vaccine had been prepared for local use. The two Concessions had decided to employ respectively two and three additional Chinese medical officers, with auxiliary staff. The French Concession proposed to carry out mass inoculations at three special cholera centres, while the posters supplied by the Ministry of Health were to be widely distributed and displayed. In Greater Shanghai, six specially trained Chinese doctors had been engaged for one month and the sum of 10,000 Mexican dollars had been allocated for this purpose by the Mayor of Shanghai. In this municipality, 300,000 vac-

<sup>1</sup> The value of the tael varies, but it may be considered as equal to roughly three gold francs.

nations had already been carried out, and 2,000 copies supplied in Chinese text of the uniform record-form agreed upon for use in the two Concessions; 50,000 inoculations each had been carried out in the International Settlement and in the French Concession. A uniform strength of vaccine (2,000 million per cc.) was adopted by the health authorities concerned, and it was decided that two injections of 0.5 cc. or one of 1 cc. were to be administered.

Food vendors were to be given practical assistance in protecting their goods from infection. Films were to be used to influence public opinion.

At the request of the Conference, Dr. Gautier prepared a plan for the organisation of an epidemiological study of cholera, for the use of the Central Anti-cholera Bureau in Greater Shanghai, which had been established to assist in the co-ordinated campaign.

It was deemed impracticable at present to undertake an examination of all the junks passing in and out of Shanghai Harbour, and the question was referred for further study to a Sub-Committee composed of Dr. WU LIEN TEH, Dr. PARK, Dr. GAUTIER and also Dr. AYLWARD, the Port Health Officer of Shanghai.

Further information regarding this campaign and its results will be available in due course.

## 6. COLLABORATION IN THE WORK OF THE HEALTH ORGANISATION'S COMMISSIONS.

Dr. Robert LIM, Professor of Physiology at the Peiping Union Medical College and President of the Chinese National Medical Association, will take part in the work of the Health Committee on vitamins and kindred subjects; while Dr. TSU MIN YI, member of the Central Executive Committee, will take part in its studies on Physical Education. Dr. Shisan C. FANG, former Director of the National Epidemic Diseases Prevention Bureau, will be associated with the work of the Commission on Social Medicine.

Since April last Dr. Tsefang F. HUANG, formerly of the staff of the Ministry of Health, has joined the staff of the Health Section.

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From the foregoing it is evident that, in spite of the continuance of military operations and the disturbance of peace, the reconstructive health work in China progresses steadily, according to the plans of the Ministry of Health. The visits of Dr. PARK, Dr. GAUTIER, Dr. BORČIĆ and Dr. FABER to China were welcomed by the Minister of Health, who afforded them every facility.

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## III.

### CURRENT WORK OF THE HEALTH SECTION.

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#### I. SERVICE OF EPIDEMIOLOGICAL INTELLIGENCE AND PUBLIC HEALTH STATISTICS.

##### A. GENEVA.

This Service has developed according to the programme laid down in previous years. The *Annual Epidemiological Report* for 1928 was published in August, without text, as last year. Considerable time elapses before final verified figures are received from the health administrations of some of the more distant countries, and it was therefore decided, at the beginning of 1929, to publish in the *Monthly Reports* the general reviews of individual diseases, formerly appearing in the *Annual Reports*: (1) in order to avoid unnecessary delay; (2) in order to deal with the various diseases at a time when their normal seasonal evolution had come to an end.

The principal epidemic diseases were reviewed in the *Monthly Epidemiological Reports* for 1929. The following special reviews have appeared in these reports for 1930: Tularæmia in January; Poliomyelitis in February and March; Psittacosis in April; Plague in May; Cholera in June. An article on Maternal Mortality appeared in the July number.

The *Weekly Epidemiological Record* appears every Thursday night and contains the official weekly *communiqué* of the Office international d'hygiène publique. This *communiqué* contains the information received by the Office under the International Sanitary Convention of 1926, and has appeared regularly in this *Record* since November 1928. The *communiqué* is translated into English by our Service; the latest information received in Paris up to Wednesday night is added in the proof on Thursday morning. The information concerning plague, cholera, yellow fever, smallpox and typhus received by the Health Section during the week is published in the second part of the *Bulletin*. In the *Weekly Record* this information is grouped by disease, continent and country, while, in the *communiqué* of the Office, it is presented according to the paragraphs of the Convention concerned. Our information is presented in the form of a comprehensive review,

drawing attention to features of special epidemiological interest, and the salient facts of the week are illustrated by maps and graphs. The *Weekly Record* also contains reviews of the trend of other epidemic diseases which show unusual prevalence. This is necessary, as the text of the *Monthly Reports* have largely taken the form of annual reviews. Reference was thus made in this *Report*, in the course of the first eight months of 1930, besides quarantine diseases, to psittacosis, cerebro-spinal meningitis, influenza and acute poliomyelitis. The development from week to week of the recent outbreaks of poliomyelitis in the middle and lower Rhine Valley has been fully described. The *Weekly Record* contains from 12 to 20 pages. The distribution has been increased to 800 copies.

A short summary of information concerning the ports in which plague, cholera or smallpox cases have occurred during the week is broadcasted from the Nauen Station, in Germany. This broadcast was formerly made in code, but has been made in clear since June 14th, 1930, as it is believed to be of greater utility in this form. This is in conformity with the procedure followed by the Sanitary, Maritime and Quarantine Council of Egypt and by the Singapore Bureau which during the last two years has broadcasted summaries in clear.

## B. EASTERN BUREAU OF SINGAPORE.

### *Fifth Session of the Advisory Council.*

Thanks to the generous hospitality of the Government of the Netherlands East Indies, the Advisory Council held its fifth session at Bandoeng from February 19th to 22nd, 1930.

Since March there has been a new development in the weekly broadcast which should be of considerable interest to shipping companies with business in the Far East.

A broadcast summary in clear of infectious diseases and quarantine notifications is now sent out daily—instead of weekly as hitherto—from the long-range station at Malabar (Java), and the undermentioned wireless stations also broadcast weekly epidemiological information in clear, for the benefit of ships in Eastern waters, on the following days:

Station	Day	Time G.M.T.	Wave length in metres	Call Signal
Hong-Kong (Cape d'Aguilar) . . . . .	Friday	5.0	2,913	VPS
Karachi . . . . .	Saturday	8.30 16.30	1,550	VWK
Madras. . . . .	Saturday	8.30 16.30	1,000	VWM
Malabar (Java) . . . . .	Daily	1.0 1.0	15,600 26.2	PKX PLO
Sandakan (British North Borneo) . . . .	Saturday	1.0	600	VQB
Shanghai Zikawei . . . . .	Saturday	3.0	650	FFZ
Tokio . . . . .	Friday <sup>1</sup>	12.15 12.45	7,700	JJC

Reports received at Singapore from captains as a result of these messages show that, on the whole run from Suez to Japan, it is possible for ships to pick up one or more of these stations—Malabar, owing to its range and daily transmissions, being the one most frequently quoted. The broadcast summary is based on telegraphic information received from more than 140 ports and broadcast in code to over 30 health administrations.

As it is practically impossible for the Eastern Bureau to check the working of its radio services, it would welcome further reports from captains of ships as to their success or failure in picking up these health bulletins, as well as any suggestions which may help to increase the efficiency of the service. Such reports should be addressed to the Director, Eastern Bureau, League of Nations, Singapore.

The Advisory Council decided that efforts should be made during the current year to send the weekly report twenty-four hours earlier, as proposed by the Director—without, however, modifying the present system until this had been re-discussed at the next session.

The Advisory Council also considered certain improvements which, as a result of recent experience, should, in its opinion, be made in the broadcasts of the Bureau's epidemiological intelligence service, and, being desirous of reaching a satisfactory solution of the problem by international agreement between the competent authorities, it adopted the following resolution:

“ The Advisory Council,

“ Having considered certain improvements which, as a result of recent experience, should, in its opinion, be made in the broadcasts of the Bureau's epidemiological intelligence service, and

<sup>1</sup> Occasionally on Saturday.

“ Believing that a satisfactory solution will be furthered if the problem is dealt with by international agreement between the competent authorities;

“ Requests the Health Committee to submit the question to the Advisory and Technical Committee for Communications and Transit of the League of Nations with a view to the two Committees studying this item of international collaboration in order that adequate suggestions may be framed for the use of all concerned and eventually for presentation at the forthcoming Conference for the Revision of the International Radiotelegraph Convention of Washington, 1927.”

In accordance with this resolution, the Advisory and Technical Committee for Communications and Transit examined the question and requested its Chairman to make the necessary arrangements for complying with the request of the Advisory Council of the Singapore Bureau, and in particular to consult the League's Advisory Committee on Wireless on this matter.

The Advisory and Technical Committee for Communications and Transit found that the Eastern Bureau's epidemiological intelligence system was working satisfactorily. However, the reception of the bulletin in clear sometimes gives rise to certain technical difficulties which were not encountered in regard to the service of the coded bulletin. It was found:

(a) That certain Administrations were unable, on several occasions, to receive this bulletin, the reception being too weak or subject to interference;

(b) That the time chosen for its issue coincided with the various services of the European stations (Press service, time signals, private telegrams to ships, etc.) which the ships' operators are obliged to pick up (this coincidence has at times prevented the reception of the bulletin);

(c) That several ships are not equipped for the reception of waves as long as those used by Malabar and Tokio.

In order to obviate these various difficulties, it will be necessary to reorganise the service for the bulletin in clear, and a letter, from which the following extract has been taken, was sent on August 22nd, 1930, by the Secretary-General to the Directors-General of Posts and Telegraphs:

“ It will no doubt be possible to organise this service in such a way that all the Administrations concerned can pick up the bulletin on long waves, as there are enough long-wave posts in the East to ensure this service; for example, Malabar 15,500 metres; Tokio 7,700 metres; Saigon 15,950 metres; Antananarivo 15,800 metres; Cavite 5,354 metres.

“ The times for these broadcasts should be so fixed as not to coincide with the long-distance European stations; for example, the Press service, time signals, private telegrams for ships in the East, etc.; but to coincide, if possible, with the duty hours laid down by the Washington Radiotelegraph Conference for ships with one or more wireless operators.

“ These long-wave messages can be retransmitted by the coastal stations on a 600 metre wave after the meteorological bulletins, which are picked up by the great majority of ships.

“ With a view to supplementing the documentary material required for the study undertaken on these various points by the Communications and Transit Committee, I should be grateful if you would furnish as full information as possible concerning the long-distance services in your country (particularly the services which the operators on board ship are accustomed or obliged to pick up; for example, time signals, Press service, private telegrams, etc.), which it is essential should not be in operation simultaneously with the issue of the epidemiological bulletin in clear.

“ I should be greatly obliged if you would be good enough to supply these data by filling in the attached sheet, which I would ask you to return to me at your earliest convenience.”

The Advisory Council decided to include in the summary in clear the number of cases and deaths, provided that the message is drawn up as concisely as possible.

As the result of an enquiry carried out by the Director, the Advisory Council unanimously agreed that quarantine stations should be regarded as a form of life insurance, and drew attention to the advisability of utilising them as clinics, infectious diseases hospitals and centres of education in health matters, as has been done by certain Administrations in North China. On the whole, the Council was in favour of the maintenance of quarantine stations in their present form.

#### *Co-ordination of International Research.*

(a) *Oral Vaccination.* — It was not possible during the past year to organise further experiments. The Advisory Council noted that the results obtained were somewhat problematical; it considered, however, that the collection of reports should be continued, as some experiments were still proceeding.

(b) *Dry Smallpox Vaccine.* — The Director communicated a detailed note on the experiments which have been carried out in a large number of equatorial and tropical countries during the last fifteen years. Despite a certain lack of uniformity in the results, dry smallpox vaccine

appears to have proved its value, provided it is properly prepared by being dried rapidly and kept in a vacuum.

The technical report submitted by the Director will be printed and the attention of shipping companies will be drawn to the value of dry smallpox vaccine.

(c) *Plague.* — The countries belonging to the Singapore Bureau have sent valuable contributions regarding the Cheopis index (Kobe), varieties of rats (Dr. YAMADA, Tokio), the parasites of rats (plague-transmitting house tick, *Lyponomysus nagayoi*) (Dr. YAMADA) and the bacteriophage of plague (Netherlands Indies). These communications, which are mentioned in the Minutes, will be carefully examined at the next meeting of the Plague Expert Commission.

(d) *Bacteriophage.* — Four notes have been received from the Patna, Rangoon, Shillong and Kasauli laboratories. The Advisory Council decided that the accumulation of data should be continued for examination at a future meeting.

(e) *Accidental Risk of Yellow Fever spreading in the East.* — The East cannot be protected against the accidental importation of yellow fever unless all countries adopt the same drastic measures and impose penalties. Up to the present time, no experiments have been carried out in laboratories in the Netherlands Indies, Manila, Japan and Siam with the amaryl virus and none will be undertaken. The Advisory Council proposed the prohibition by law, under severe penalty, of the importation or possession of yellow fever virus for any purpose in all countries in the East liable to infection with this virus.

In the Netherlands Indies, all vessels coming from a South-American port are required to anchor at a distance of one nautical mile from the coast to undergo disinfection. Such action is, however, very rare, and applies only to vessels bringing back to Java workers who have been employed at Surinam and Curaçao.

In view of the possibility of yellow fever spreading by aeroplane and the fact that a regular air service was being planned from the West to the East Coast of Africa, the Advisory Council urged that stringent measures should be taken to prohibit all air traffic from infected or even suspected areas to any of the countries in the regional area of the Eastern Bureau until such time as the measures concerted by the Office international d'Hygiène publique were being effectually applied.

(f) *Proposal for the Bureau to act as a Centre of Information.* — In reply to a direct question, the Advisory Council stated that it was advisable for the Bureau to collect information on the technical training of the sanitary personnel of all Eastern countries. According to certain members, the utilisation of similar information dealing with medical education would be a more difficult matter.

The question of pneumonia among labourers, soldiers and, more especially, emigrants in tropical countries having been raised, the Council decided that during the coming year special attention should be paid to the collection of information on this disease with a view to considering, at a later session, the desirability of forming an expert committee for research into pneumonia.

The Director of the Eastern Bureau co-operated with the three municipalities of Shanghai with a view to concerted action in the matter of vaccination against cholera.

The Eastern Bureau organised a collective study tour of medical officers in Eastern ports. This began at Singapore on June 27th and included a visit to the health stations of the principal ports of Java, Indo-China, the Philippines, China and Japan.

The Advisory Council noted with gratitude the donation of \$500 by Mr. J. J. Forstall, of Chicago, as a contribution towards the expenses of some special object of research in which the Bureau is interested.

The Committee elected as Vice-Chairman for 1930 Dr. GUÉRIN (Indo-China). As General GRAHAM, the Chairman, informed the Council that he did not intend to stand for re-election, the Council elected Dr. VAN LONKHUYZEN (Netherlands East Indies), as Chairman.

The report on the work of the fifth session of the Advisory Council (document C.141.M.53. 1930) was communicated to the members of the Health Committee on July 18th, 1930.

## 2. SYSTEM OF LIAISON WITH THE HEALTH ADMINISTRATIONS OF DIFFERENT COUNTRIES.

### COLLECTIVE STUDY TOURS AND INDIVIDUAL MISSIONS.

1. Since the last session of the Health Committee, three collective interchanges have been held: the first in France, the second in Roumania and the Kingdom of Yugoslavia, and the third in the Far East, where the interchange was restricted to the study of port health procedure.

In addition to these collective study tours, a number of public health officers nominated by their health administrations have been given facilities to study abroad subjects in which their administrations are particularly interested. These individual missions are described later in this report.

2. *General Interchange in France.* — This was the first general interchange in which the whole period was spent in France. The preparations were begun some time ago by a Committee presided over by Professor Léon BERNARD who spared no pains to ensure the success of the

interchange. Under his guidance, very complete information was prepared for the participants, consisting of a handbook on public health in France and various annexes. The handbook begins with an illustrated description of geographical conditions in France, for national health problems take their peculiar characteristics from climate, configuration, contours and other physical and economic conditions that determine the specific lives of the different sections of a nation. This was followed by a description of the system of Government and of the administrative machinery in France, and this, in turn, by a detailed review of the evolution and present status of the different branches of public health work. The annexes contain the public health laws and regulations in force in France and other relevant material.

The interchange opened on May 26th in Paris and terminated with a final conference at Geneva on July 7th. There were sixteen participants from twelve countries.<sup>1</sup>

The programme began with a study of the work of the Office national d'Hygiène sociale in Paris and of other national and central organisations and institutions, such as the National Anti-Tuberculosis Committee (Comité national de défense contre la tuberculose) and its school for public health nurses, tuberculosis dispensaries, hospitals and sanatoria in or near Paris, and inspection of the measures for the protection of the food supply.

The various forms of departmental health organisation were studied in the departments of Seine-et-Marne, Aisne, Seine-Inférieure and Hérault, while the participants were enabled to appraise the development of municipal hygiene in Paris, Lyon, Nancy, Havre, Rouen, Suresnes and a few of the smaller French towns.

In addition to visits to the Medical Faculty of the University of Paris, the participants were given the opportunity to inspect a provincial medical school at Clermont-Ferrand. The Institutes of Hygiene at Nancy and Lyon were also studied.

In the Département du Nord, the work of reconstruction was inspected, with particular reference to housing, sanitation, industrial hygiene and the organisation of voluntary and official health agencies.

Vichy was selected for inspection as the type of French watering-places, and an excellent programme was arranged for the short stay of the participants in that city.

During the whole interchange, and in every part of France, no trouble was spared to furnish the participants with all information and an opportunity for direct study.

The group was received by the Minister of Health, by the City of Paris, and by the Medical Faculty of the University of Paris. In every region, they were warmly welcomed by the prefects of departments, mayors of towns, and all public health officers, directors of private health agencies, and the medical profession.

The French Government secured very substantial reductions and special arrangements for the comfort of participants from all the railroad companies.

I am sure the Health Committee will wish to express to Professor Léon Bernard, and through him to all his colleagues in France, their appreciation for the perfect organisation of this first general French interchange.

Several most interesting reports have been received from the participants.

3. *The Balkan Interchange.* — This interchange was restricted to Roumania and the Kingdom of Yugoslavia, the period from June 1st to June 16th being spent in Roumania, and from June 16th to July 6th in the Kingdom of Yugoslavia.

There were three participants each from Bulgaria, Greece, Roumania and Yugoslavia, and two from Czechoslovakia.

The Committee will learn with deep regret of the death in August of Doctor Charles LAUGIER, Inspector-General in the Public Health Services of Roumania, who was responsible for the arrangements for the interchange in Roumania, and who accompanied the participants during their stay in that country. Suffering from the affection which a short time afterwards led to his death, Doctor Laugier devoted himself to the interchange without regard to his own health, and the participants will not soon forget his charming personality and his unusual technical capacity.

The interchange began at Timisoara and the visit to Roumania was concluded by a Conference at Baile Herculane. During this period visits were paid to Arad, Cluj, Sovata, Borsec, Jassy, Galatz, Sulina, Tulcea, Constanza, Techirghiol, Calimanesti, Govora, Craiova and Bucharest, as well as a number of towns *en route*.

The participants were given every opportunity to study in detail the public health and medical organisation in Roumania, including sanatoria, hospitals, dispensaries, institutes of hygiene, welfare institutions, watering-places and health centres.

The Committee will wish to express their appreciation to Professeur CANTACUZÈNE who gave his time unsparingly to plan this first interchange in Roumania. He accompanied the group during a part of their tour and received the participants at his institute, giving them an account of his work in connection with BCG, and the prophylaxis of scarlet fever.

Minister Moldovan, Under-Secretary of State at the Ministry of Labour, Public Health and Social Welfare, who directed the organisation of the interchange in Roumania, received the group most cordially and placed all the resources of his organisation at the disposal of the participants. The Committee will certainly wish to express to him and to all his colleagues concerned, their warm appreciation.

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<sup>1</sup> *Vis.* : Bulgaria, China, Czechoslovakia, Germany, Great Britain, Greece, Italy, Netherlands, Poland, Roumania, Spain and Yugoslavia.



The Roumanian Government made generous arrangements for the railroad and motor transport, and all the authorities and agencies extended the most generous hospitality.

The second half of this interchange, in Yugoslavia, was equally successful. Visits were paid in turn to Novi-Sad, Belgrade, Ljubljana, Zagreb, Split, Trogir, Dubrovnik, Sarajevo, Nish, Skoplje and Prishtina. In each centre, the work of the institute of hygiene in all its branches was studied and the participants were enabled to appreciate the technical value of the work of these institutes and their branches as well as their utility as a means of instructing the public in hygiene.

Doctor A. ŠTAMPAR and his associates made all arrangements for the interchange and, as they have had ample experience in this work, it is unnecessary to emphasise how successfully these were carried out. The participants were given cordial receptions everywhere; they were particularly pleased with their welcome at the various institutes of hygiene, where every facility for their studies was provided.

The Committee will wish to express their appreciation to Doctor Štampar and his colleagues, as well as to all other central and local authorities who contributed so freely to the success of the interchange.

For the benefit of the participants a special volume on the public health services in Yugoslavia was prepared by Dr. IVANIĆ and Dr. KONSTANTINOVIĆ, of the Central Institute of Hygiene at Zagreb. This volume contains four chapters—the first dealing with medical statistics, the second with the organisation and the administration of the public health services, the third with public health legislation and the last with the Central Institute of Hygiene.

4. *The Interchange of Port Health Officers in the Far East.* — The members of the Committee will recall that our Japanese colleagues have, on several occasions, insisted on the utility of an interchange for the study of port health practice in the Far East. During the last Assembly the subject was again raised by the Japanese delegation, and in accordance with the desire of the Health Committee, the interchange was arranged during the present summer.

Full details concerning this study tour will not be available until the return of Dr. C. L. PARK, who is expected in Geneva shortly before the Health Committee meets. The interchange began on June 27th and was scheduled to terminate with a final conference at Tokio on August 19th. Port health practice was studied in the following countries: Straits Settlements, Netherlands East Indies, French Indo-China, Hong-Kong, Japan, Philippine Islands and China. There were eight participants from six countries.<sup>1</sup>

In order to facilitate the study in the various ports, schedules containing the items to be considered were distributed beforehand to the ports, so that full information was available on the arrival of the group.

5. *Individual Missions.* — In view of the resolutions of the Council concerning the facilities to be offered to the Health Administrations of China and Greece in their programmes of collaboration with the League, a certain number of "missions" were provided for health officers appointed to posts in the health services of these countries.

Four Chinese medical officers were thus enabled to study various branches of public health abroad during the present year. One of them visited several European countries, studying the organisation and administration of the campaign to reduce infantile mortality. A second, who is to be the health officer of the Province of Chekiang, paid particular attention to rural health work, visiting important rural health centres in Central and Western Europe. A third devoted himself to a study of modern port health practice in Germany, the Netherlands, Great Britain, Canada and the United States. The fourth, who heads the Division of Medical Administration in the National Ministry of Health, studied general health work, medical education, hospital organisation and the training of midwives in Central and Western European countries, Great Britain and the United States.

At the request of the Ministry of Health of the Government of China, the programme of studies abroad of two other medical officers was arranged by the Health Section.

In addition to those Greek public health officers mentioned in previous reports, who were enabled to take advantage of the malaria courses, and who afterwards studied various public health subjects in Europe, according to a programme arranged by the Health Section, three others studied municipal health administration, public health laboratory work and medical statistical work respectively in European countries. A fourth will begin his studies in September.

Greek and Chinese medical officers also participated in the French interchange, and a Chinese port health officer participated in the port health interchange.

Three medical officers, who were made responsible by their administrations for the conduct of the enquiries into infant mortality, studied the organisation and administration of the enquiry in one or more of the countries in which the original enquiries were made.

The policy of providing missions for medical officers who are carrying on work of interest to the Health Organisation was directed to the teaching of hygiene, the practice of rural hygiene, housing, the sero-diagnosis of syphilis, sleeping-sickness and anti-malaria work.

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<sup>1</sup> *Viz.*: China, French Indo-China, Japan, Netherlands East Indies, Siam and Straits Settlements.

The reports on some of these subjects will be useful in connection with sessions of the Committee's various commissions.

The value of these individual missions as a means of training health officers or for broadening their knowledge is appreciated increasingly by health administrations. In all cases, a programme is prepared carefully by the Health Section with the help of the Administrations concerned. The Health Committee will wish to express their gratitude and appreciation to the central and local health authorities of the different countries who have taken so much trouble to enable foreign medical officers to study their work.

6. *Opening of Rural Health Centre at Gödöllo and Inauguration of a School of Public Health Nursing at Budapest.* — Many public health officers, nominated by their health administrations for individual missions, have studied the work of the rural health centre at Gödöllo (Hungary), which is the headquarters for health work in a large district containing some thirty villages, and is used as a demonstration and training area for the Institute and School of Hygiene at Budapest.

The official opening of this new centre, now housed in a modern and well-planned building, will take place late in the autumn, and the Secretary of State for Health and the Director of the Institute propose that this occasion should be used by the Health Organisation for the continuation of its study of rural health centres which the Health Committee at its fourteenth session decided should be made.

In view of the important rôle of the public health nurse in the conduct of rural health centres, it is fitting that this subject should receive due consideration at the same time, and the opening of the new nursing school at the institute furnishes a suitable opportunity.

It is suggested that invitations be issued to a group of health officers with experience in the work of rural health centres in order that they might study the subject under the chairmanship of a member of the Committee, according to the following headings: Organisation of Health Centres, area served, activities, branches, administration, personnel, buildings, budget.

A report of the discussion would be presented to the next session of the Committee.

7. *Programme for 1931.* — The Committee has already given its general approval for an interchange for the study of the milk supply, and it is planned to hold this interchange in 1931. As it is the milk supply of municipalities which most requires protection, the participants should be health officers responsible for the administration of municipal hygiene. The Health Committee has insisted on the need for the participation of veterinarians, bacteriologists and chemists, and others having to do with the milk supply. The Committee has also expressed the wish that such an interchange should visit America as well as certain important centres in Europe.

Surgeon-General CUMMING has generously offered the assistance of the Health Services he directs, and the President of the Committee has agreed to help in the organisation and reception of the interchange in Denmark.

It is planned that the interchange shall begin in Denmark, and that, after visiting one or two other European countries, the participants shall continue their studies in the United States.

The group will be supplied with documents on the status of the control of milk in the countries most advanced in this respect. The interchange will probably take place during the late summer or early autumn.

As far as individual missions are concerned, a number should be reserved for Chinese, Greek and Bolivian health officers, nominated by their administrations in accordance with the plans of collaboration established.

Others will be reserved for medical officers who are to carry out enquiries into infant mortality undertaken by their health administrations as a result of the studies carried out by the Health Organisation.

Some will be reserved for medical officers working on subjects with which the Health Organisation is dealing.

The increasing demands upon the resources of the Health Organisation for interchanges and individual missions indicate the necessity of systematising this work, as has been done so successfully in connection with the courses for malariologists. The organisation of these courses into two stages—first, the theoretical and laboratory, and, secondly, the field stages—has yielded satisfactory results, and the question arises as to whether some similar arrangement could not be made for individual missions. With this in view, the Health Section is proceeding, with the help of the administrations concerned, to prepare programmes for field studies in various subjects in one or two countries, which will avoid the necessity of preparing a programme for each mission.

This and other new methods of facilitating the studies of health officers abroad will be discussed in detail with the Committee.

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IV.

COLLABORATION WITH SOME PUBLIC HEALTH ADMINISTRATIONS.

A. LIAISON WITH LATIN-AMERICAN HEALTH ADMINISTRATIONS.

1. *Bolivia*. — The request of the Bolivian Government was approved by the Council on August 31st, 1929 (fifty-sixth session) in the following terms :

“ The Council,

“ Expresses its satisfaction that the Bolivian Government, in its desire to extend its action in the reorganisation of the health service of its country, has appealed for the help of the Health Organisation of the League.

“ It invites the Health Committee to give, in accordance with the terms of the Bolivian Government's letter, its assistance in the preparation, as well as in the later development, of the plan for the reorganisation of the health service of Bolivia.”

Accordingly Dr. MACKENZIE and Dr. PASCUA, left for Bolivia in April 1930 to confer with the authorities in Bolivia on the plan of collaboration to be submitted to the Health Committee.

In accordance with the preliminary programme adopted in agreement with the General Department of Health, the survey was to take account of:

Vaccination against smallpox;  
Malaria;  
Ankylostomiasis;  
Child welfare;  
The organisation throughout the country of departmental health services.

The provisional programme of the Bolivian authorities included the following points: campaign against malaria and ankylostomiasis, child welfare and possibly Calmette's vaccination against tuberculosis with BCG, the establishment of a public health institute consisting of a laboratory and school of hygiene, the latter intended for the technical training of health officers.

The survey has been actively pursued in accordance with the programme, despite certain unforeseen events, which have disturbed the peace of the country and the lack of communications in certain districts. Dr. Mackenzie and Dr. Pascua have already surveyed: the city of La Paz and the central services; the towns of Sucre, Cochabamba and Oruro; the district of Mizque, which is of special importance from the point of view of malaria; the Valle Grande, where there used to be leprosy foci; the sub-tropical district of Yungas; the district of Sorata. They have already travelled as far as Santa Cruz de la Sierra, which is of great importance from the point of view of malaria and the cinchona forests, and even as far as the Chaco. As indicated in the provisional programme drawn up by the General Health Department, special attention has been paid to malaria, ankylostomiasis and child welfare. It is hoped that our colleagues will be back in time for the September session of the Health Committee and will be able to give a detailed report on the method of co-operation which they have already examined with the Bolivian authorities.

Dr. Mackenzie and Dr. Pascua were extremely well received by the Central Government, the prefects and University and medical personnel, and this has facilitated their surveys.

2. *Infant Mortality (Lima Conference)*. — On the invitation of the Peruvian Government and with the co-operation of the health authorities of that country, the Health Organisation convened a Conference of Health Experts on Child Welfare, which was held at Lima in July in connection with the Sixth Pan-American Congress on Child Welfare. The object of this Conference was to discuss the results of the enquiries into infant mortality carried out under the auspices of the Health Organisation in the Argentine, Brazil, Chile and Uruguay, in pursuance of the resolutions of the Montevideo Conference of 1927, held under the auspices of the League, to compare these results with those of the European investigations and to consider the organisation of similar enquiries in other South American countries.

After the Lima Conference, a mission consisting of the European expert, Professor R. DEBRÉ, and two members of the League Secretariat, Professor O. OLSEN and M. J. NOGUEIRA, visited Santiago, Buenos Ayres, Montevideo, Rio de Janeiro and São Paulo to discuss with the experts of those countries the practical application of the conclusions of the Conference. In addition to the experts present at the Montevideo Conference, the Lima Conference was attended by the representatives of Peru, Bolivia, Colombia, Ecuador, Paraguay, and Venezuela.

The work of the Lima Conference was to be based on the reports of the European investigators and also on four South American reports furnished by the Argentine, Brazil, Chile and Uruguay.

The comparison of these four reports with the European report has already shown the great importance of the South American enquiry and of the further extension of the enquiry in general. The European enquiry has revealed two important factors: (1) still-births and infant mortality during the first days of life; (2) deaths occurring later due to diseases of the digestive system, acute infectious diseases and diseases of the respiratory system. As the causes of the two groups of

mortality are not the same, different prophylactic measures are required. To prevent still-births and deaths during the first days of life, provision should be made for pre-natal, natal and immediately post-natal hygiene and the social and legislative protection of pregnant and parturient women and of infants, especially premature and weakly infants, during the first few days of life. Although all hygiene is in reality social hygiene, the term is particularly applicable to pre-natal and natal hygiene. For the prevention of diseases of the digestive system, acute infectious diseases and diseases of the respiratory system, arrangements must be made for the supply of pure milk, for anti-syphilitic measures, for the prophylaxis of infectious diseases among young children.

These two main factors are also revealed in the South American reports, as also are the variety and divergence in the number of deaths, according to whether the district is urban or rural.

In Uruguay, there is a great difference in the figures for the capital (which is relatively of considerable size) and the country districts, the conditions in the latter being fairly uniform. Although it has only been possible to examine a limited number of cases, syphilis is recognised to be one of the chief causes of still-birth and congenital debility.

The total figures per thousand are :

Still-births . . . . .	21.6
Deaths during the first month . . . . .	310
Deaths during the first year . . . . .	100

Of these 100 deaths, diseases of the digestive and respiratory systems are each responsible for approximately one-third. Professor Morquio emphasises that the most important factor of infant hygiene is that the child should be nursed by its mother as long as possible. He urges that special attention should be paid to the question of pure milk and preventive hygiene as a whole, which should be based on a census of mothers and infants ; this does not yet exist. More than 50 per cent of the babies who died received no medical attention. Only 16 per cent of the babies observed received medical attention. A maternal and infant welfare centre should be established, from which the greatest benefits may be expected in view of the success of the Casa del Niño of Montevideo.

In the Argentine (Professor Araoz ALFARO), the death rate in different districts varies considerably. While the average infant mortality for the Republic as a whole is at present approximately 110, it is 78 to 80 for the city of Buenos Ayres, 90 for the province of Buenos Ayres, and 120, 140, 170 and even 230 and 260 in certain provinces of the sub-tropical zone. In the city of Buenos Ayres, the death rate in the twelfth district, which is comparatively prosperous, is only 51 per thousand.

Unfortunately, the enquiry into still-births has not yet proceeded far enough to be of much value. The number of deaths during the first month is very considerable, from 36 to 50 per cent due primarily to congenital diseases and diseases of the new-born; malformations, obstetrical traumatism, infection during the first few days. That is the first group as defined by the European enquiry, which is the most difficult to combat. Turning to the diseases in the second group (digestive system and infectious diseases), we find that these diseases are the main causes of death in districts with an average or high death rate (25 to 41 per cent) while their importance is practically nil in districts with a low death rate (under 1 per cent). These are the diseases which can most easily be prevented by proper feeding and general infant hygiene—factors which, at the present time, constitute a fairly reliable index of the degree of civilisation of a country. The necessity for supervision is clearly shown by the fact that there are a large number of deaths among babies breast fed by their mother or a wet-nurse. The need for special care is demonstrated by the example of Tucuman, where the large number of deaths due to affections of the digestive system has been attributed to the sub-tropical climate, whereas the real cause is bad hygiene. The tentative efforts at organisation made during the last few years have already reduced this number; moreover, the death rate is lower at Tucuman, where the climate is very hot, than at Azul, which has a cool climate.

It has not yet been possible to determine the part played by hereditary syphilis, as the results of biological reactions and post-mortems are not available.

In Brazil (Dr. J. B. BARRETO and Dr. E. JANSSEN DE MELLO), specific communicable diseases have caused more deaths in the towns than digestive affections; in rural districts, the position is reversed. Pre-natal, natal and post-natal causes appear to be twice as fatal in towns as in country districts. The Brazilian report shows the great importance of syphilis as regards premature births. Syphilis has in itself an importance almost equal to that of the pre-natal, natal and post-natal causes, and this importance is even greater in country districts than in the towns. Hereditary syphilis as a cause of death is of practically the same importance in towns and country districts. The causes of pre-natal, natal and post-natal morbidity are particularly frequent in the case of twins. Legitimacy or illegitimacy plays a very small part; what chiefly matters is the financial position of the family—whether it is well-to-do or poor. On the whole the enquiry shows that diseases of the digestive system and nutrition ailments come first, communicable diseases—notwithstanding the relative importance of syphilis—taking the second place.

Among the cases of still-births, 12 per cent were premature births (24 per cent in the State of Rio). As regards still-births and the incidence of maternal traumatism, the figures for the rural districts are four or five times as high as those for urban districts.

The Brazilian investigators mention the following curious fact. When breast-feeding by the mother is replaced during the first three months by artificial feeding or nursing, infant mortality declines as from that time, more especially in the case of mixed feeding. When the method of feeding is changed during the second three months, on the other hand, infant mortality chiefly declines in cases of artificial feeding.

In Chile (Professor Calvo McKenna), infant mortality is extremely high, and is very much the same all over the country. On the whole, nutrition affections cause a larger number of deaths than infectious diseases. Out of 468 deaths analysed, there were 45 cases of obstetrical traumatism, 29 premature births and 2 congenital malformations. This fact explains the high mortality during the first weeks. Out of these 468 cases, there were 45 deaths on the first day, 79 in the first week and 158 during the first month. All deaths during gestation, without any exception, were due to syphilis. Syphilis and abnormal confinement are the two causes of still-births. Obstetrical traumatism and prematurity are the causes of death during the first month. Professor Calvo McKenna gives improper feeding as the main cause of death after the first month; this question has, for the last year, been receiving the attention of the Government, and the establishment of a National Institute of Nutrition has been decided upon.

These data show the importance of the problem of infant mortality in South American countries.

3. *Serological Conference of Montevideo.* — The Uruguayan Government requested the Health Committee to appoint a delegate to preside over the South American Serological Congress which is to be held at Montevideo in September 1930 by the Institute for the Prevention of Syphilis; the Health Committee adopted the following resolution:

- " The Health Committee,
- " Attaches great interest to the organisation at Montevideo of a South American Serological Congress,
- " Is glad to note that work similar to that of the Laboratory Conference held at Copenhagen for comparing the various methods for the sero-diagnosis of syphilis will be carried out in Latin America,
- " Realising the benefit to be gained by effective co-operation in the work of the Congress;
- " Decides to ask its President to do everything possible to facilitate the work of the Congress and to select its President."

In pursuance of this resolution, the Health Committee appointed Professor J. JADASSOHN, Director of the Skin Clinic of Breslau and Chairman of the Commission of Experts on Syphilis and Cognate Subjects, to act as President of the South American Serological Conference, organised by the Montevideo Institute for the Prevention of Syphilis. The object of this Conference (September 1930) is to compare, with the help of technical experiments carried out simultaneously by the participants, the value of the various methods employed for the diagnosis of syphilis by the examination of the blood. The Health Section is assisting in the technical preparations for this Conference, which is to be conducted on the same lines as the Laboratory Conferences on the Sero-Diagnosis of Syphilis held at Copenhagen in 1923 and 1928. Experts from all South American countries are attending, as well as the foreign scientists who discovered the methods which gave the best results at the Copenhagen Conferences.

The Conference is to be held in the laboratories of the new palace of the Health Council of Montevideo.

4. *Leprosy in South America.* — As shown by the special report on the enquiry into leprosy and on the programme of the Leprosy Commission's, work a scheme for the establishment of an international research centre for leprosy at Rio de Janeiro is now being carried out. This proposal, had its origin in the recognition of the importance of the problem of leprosy in Brazil, the action taken in 1926 by Professor Chagas and the special facilities offered by the Brazilian Government for the investigations; these facilities include not only access to the various institutes and leprosaria in the country, but an annual credit of ten thousand gold dollars, to which will be added a contribution of the same amount offered by the Brazilian philanthropist whose name has so often been mentioned in the Health Committee — M. Guinle. The Committee will be glad to know that Professor Nocht, Director of the Tropical Diseases Institute of Hamburg, has agreed to go to Brazil and give the Rio de Janeiro centre the benefit of his worldwide experience.

#### B. REQUEST MADE BY THE BULGARIAN GOVERNMENT TO THE HEALTH ORGANISATION REGARDING THE CAMPAIGN AGAINST SYPHILIS.

On September 6th, 1929, the Bulgarian Government addressed a letter to the Secretary-General asking for the help of the Health Committee in the campaign against syphilis in certain parts of Bulgaria.

The results of the preliminary studies of the Health Section in October 1929, have been embodied in the report C.H.837, submitted to the fifteenth session of the Health Committee. This report also contains a list of the measures decided upon by the Bulgarian Government (Direction of Public Health, as well General Direction for the Settlement of Bulgarian Refugees) in agreement with the High Commissariat for the Settlement of Bulgarian Refugees.

Having taken note of this report, the Health Committee, during its fifteenth session, adopted the following resolution:

- " The Health Committee,
- " Having noted the report of the Health Section (document C.H.837);
- " Recommends the acceptance of the proposal made by the Bulgarian authorities for the collaboration of the Health Organisation in a campaign to be undertaken against endemic syphilis prevalent in certain areas of Bulgaria;

" Is glad to note that the Commissariat of the League of Nations for the Settlement of Bulgarian Refugees is prepared to assume responsibility for the expenses involved in the preliminary enquiry, the training of the necessary personnel and the carrying out of the prophylactic campaign;

" Invites its Commission of Experts on Syphilis and Cognate Subjects to afford all requisite technical assistance, including the placing of the services of an expert at the disposal of the Bulgarian authorities. "

As a result of this resolution, Professor Jessner, Senior Assistant Director of the University Clinic for Skin and Venereal Diseases in Breslau, and Dr. Olsen of the Health Section, visited Bulgaria (March 31st to May 10th). They placed themselves at the disposal of the Government and after consultation with the Public Health Authorities and Bulgarian experts in venereal diseases, visited the Department of Burgas. After their return to Sofia, they took part in several conferences with the Bulgarian authorities and qualified experts of the medical profession.

At the request of the Bulgarian authorities, Professor Jessner was delegated to act as Adviser to the Bulgarian Government in the initial stages of the epidemiological enquiry and of the establishment of the treatment centres, whilst the work was to be carried out under the direction of a Chief Medical Officer. Professor Jessner remained in Bulgaria from June 14th to August 23rd, 1930.

As a result of conferences between the authorities concerned and of Professor Jessner, the following scheme for the carrying out of the programme was adopted, viz.:

#### *General Organisation.*

1. An expert, stationed at Burgas, to be entrusted with the supervision of the whole of the syphilis campaign in the department and, at the same time, to direct the Hospital Department for Venereal Diseases and the dispensaries in Burgas.

2. In the districts of the Department of Burgas, the district physicians to be entrusted with the supervision of the treatment, the search for fresh cases and the education of the public.

3. The physicians entrusted with local work in the "Sanitary communes" and the "sanitary rayons" will also be required to treat the cases in those neighbouring villages which are staffed only with "feldschers".

4. In those arrondissements, where the number of physicians is insufficient for the requirements of the villages staffed only with "feldschers", the district physician is to be provided with an assistant medical officer, who will perform the treatment in these villages.

5. In Burgas two dispensaries for venereal diseases (one for men and the other for women) will be erected on the lines of a modified type of refugee house.

The Hospital at Burgas will be provided with an Annex for detailed examination and treatment of venereal diseases; if necessary, new buildings will be erected to accommodate these cases. Thirty beds are to be provided.

6. In Vassiliko, a dispensary will be erected on the same lines as at Burgas.

In addition, the arrondissement of Vassiliko is to be provided with two mobile brigades, consisting of physicians and "feldschers".

#### *Training of Staff.*

Special courses in the treatment of syphilis will be organised for the physicians of the Department of Burgas. There will be several successive courses, so that all the physicians of the department may be admitted in a fairly short time.

#### *Diagnosis.*

The serological examinations will be carried out in a central laboratory belonging to the Anti-Malarial Institute in Burgas.

The Kahn method will mainly be employed; in doubtful cases, it will be supplemented by other methods.

In doubtful cases, the departmental specialist in Burgas is to be consulted; to this end he will travel to the different arrondissements at certain fixed intervals.

#### *Treatment.*

The method of treatment will depend upon local conditions and will be carried out after consultation with the departmental specialist, the remedies to be employed being neo-salvarsan, myo-salvarsan, spirocid and bismuth.

The treatment will be carried out in all cases where the diagnosis has given definite results, and only in these cases.

The mobile brigades working in the arrondissement of Vassiliko will, in the intervals of treatment, proceed to other villages not yet visited in order to carry out the examination of all their inhabitants.

The scheme has now been put into execution:

1. All the doctors have now received special instruction and have been equipped with the apparatus and instruments required for their work.

2. Dr. Schauloff, who collaborated with Dr. Jessner in the preparatory work, has been nominated as expert syphilologist.

The assistant medical officers attached to the district physicians have been nominated.

3. The two dispensaries at Burgas and the dispensary of Vassiliko are ready.

4. The annex of the Hospital of Burgas, which is to be used for stationary treatment of venereal diseases, is in course of construction.

One of the two mobile brigades proposed for the Vassiliko district is now at work. Future experience is to show whether a second brigade is necessary.

### C. ANTI-MALARIA CAMPAIGN IN BULGARIA.

The Director-General of the Bulgarian Health Service communicates to the Section a report regarding the systematic campaign which has been conducted for the last three years by the Anti-Malaria Organisation of Petritch on the lines laid down by one of the Malaria Commission's experts, Professor N. H. SWELLENGREBEL, who has already paid two visits to Bulgaria at the request of the Bulgarian authorities and of the League's Commissariat in Bulgaria.

In August 1930, Professor Swellengrebel made a further examination of the situation and of the results obtained.

As the outcome of this further enquiry, the Bulgarian authorities hope to combine the application of anti-malaria measures and measures for rural assistance.

### D. COLLABORATION WITH THE GREEK GOVERNMENT IN THE REORGANISATION OF ITS PUBLIC HEALTH SERVICES.

Progress is being made in the application of the plan adopted by the Greek Government for the sanitary reorganisation of the country.

1. In accordance with the recommendation contained in the plan, the Under-Secretariat of State for Health has been attached to the Prime Minister's Office, and His Excellency Dr. Pappa is at present holding the ministerial appointment of Under-Secretary of State for Health.

The Prime Minister, M. Venizelos, and Dr. Pappa have taken great pains to enlighten both Parliament and public opinion as to the details of the plan. An Act of Parliament and administrative decrees under its authority have been promulgated to give effect to the provisions of the plan, and the necessary credits have been voted.

2. The post of Director-General of the Athens Centre has been filled by the appointment of Mr. Pallis, who acts at the same time as Secretary-General of the Under-Secretariat of State for Health. Thus, a permanent liaison has been secured between the present administrative sections of the Under-Secretariat of State for Health, with the detached sanitary services functioning in other Ministries, and the new technical services created under the plan, including the School of Hygiene.

3. Our colleague, Dr. F. Norman White, has been appointed by the Greek Government Director of the Athens School and Professor of Hygiene and Preventive Medicine, and the Secretariat of the League has seconded him for this purpose for a period of three years. It will be remembered that, under the plan, it is the duty of the Director of the school, as well as of the Professors of Malariology and of Sanitary Engineering:

(a) To serve as technical advisers to the Central Sanitary Administration on the public health activities and preventive measures being carried out in the regions to which the new plan of organisation will apply, and these regions will be utilised for the practical training of the students of the school;

(b) To report on such activities to the head of the Central Sanitary Administration.

The plan provides that the Athens centre shall be composed of six divisions-namely:

(a) Division of Hygiene and Preventive Medicine, including the School of Hygiene;

(b) Division of Malariology;

(c) Division of Sanitary Engineering;

(d) Division of Pharmacology and Biochemistry;

(e) Division of Research;

(f) Division of School Hygiene.

Mr. Pallis, who is the head responsible to the Under-Secretary of State for Health in exercise of his administrative duties, has assumed, under the technical authority of the Director of the School, the general administration of these divisions.

Dr. Marschall C. Balfour, member of the staff of the International Health Division of the Rockefeller Foundation, has been seconded by the Foundation to serve as Director of the Division of Malariology, by an arrangement concluded between the Greek Government and the Foundation. Under the same arrangement, the services of Mr. Daniel E. Wright have been made available by the Foundation as Director of the Division of Sanitary Engineering. The Foundation has provided the credits necessary for these two posts.

Professor Joachimoglou, of the University of Athens, has been appointed Director of the Division of Pharmacology and Biochemistry, and Dr. Lampadarios Director of the Division of School Hygiene.

The functions of the Division of Research have, in accordance with the plan, been undertaken by the Hellenic Pasteur Institute, under Dr. Blanc.

Several experienced Greek colleagues have been selected to fill various positions in the technical services of the centre.

4. The Health Committee will be pleased to learn that the organisation of the Athens Centre, and, in particular, of the School of Hygiene, is now completed, and that the school will begin operations in November next. It is a matter of congratulation to all concerned that it has been possible in less than a year to acquire the necessary land, to transform existing buildings and to construct new pavilions as well as to obtain all the laboratory fittings and equipment necessary for the working of the school.

5. The collaboration requested by the Greek Government from our Commission on Education in Hygiene and Preventive Medicine, in regard to the preparation of a detailed memorandum on training, requirements for matriculation and final examinations, was commenced by a first exchange of views between the Director of the Athens School and the Chairman of the Commission, assisted by Directors of European Schools of Hygiene. These discussions, based on the study of a draft programme prepared by Dr. F. Norman White, will be terminated during the September session of the Health Committee, which will be attended both by Dr. Norman White and Mr. Pallis.

6. Out of the large number of candidates who are expected to apply for the entry examination to the school in November next, twenty-four will be selected for admission, including several of the medical officers of health now engaged in actual work.

7. Courses for the training of health visitors were given by the Hellenic Red Cross during 1929, so that a small nucleus is now available for work in the regions of the application of the plan.

A small number of public nurses is also available for work in the Health Centres, and in other institutions which are to take shape in these regions during the year 1930-31.

8. The activities connected with transferring the present prefectural health organisation to the new organisation in the regions for the application of the plan have been commenced in the islands of Crete and Corfu, and in the autumn they will be extended to certain parts of the area administered by the Governor-General of Macedonia, and to the Prefecture of Jannina. The survey of the Athens-Piræus metropolitan area has been continued, and, in accordance with the arrangement arrived at with the Greek Government, the services of a municipal health officer will be placed at the disposal of the Government this autumn for a period of a few months for collaboration in the preparation of a definite plan of health services for the metropolitan area.

9. A special, and fairly comprehensive, emergency organisation was set up by the Under-Secretary of State for Health, for the control of malaria in certain selected regions, even before the Athens Centre would begin operations. The Secretary of the Malaria Commission will visit certain of these areas very shortly, upon the invitation of the Under-Secretary of State, who is also anxious to consult the Health Committee upon the detailed application of the recommendations in regard to tuberculosis prevention (see Chapter V of the plan).

10. At the request of the Prime Minister, the Medical Director visited Athens in July for consultation in regard to the progress already made and contemplated in the application of the plan

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## V.

### TECHNICAL SECRETARIAT OF COMMISSIONS.

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#### I. MALARIA COMMISSION.

##### A. COURSES IN MALARIOLOGY.

The courses in malariology were held, for the fifth year, under the auspices of the Health Organisation: at the Institute of Tropical Medicine, Hamburg (June 10th to July 15th); at the Laboratory of Parasitology of the Faculty of Medicine, Paris (June 3rd to July 13th), and at the School of Malariology, Rome (July 1st to 30th).



The course at the London School of Tropical Medicine was not held as there were not enough English-speaking participants.

The participants were from the following countries: Bulgaria, China, France and French Colonies, Germany, Greece, Honduras, Italy, Mexico, Peru, Persia, Portugal, Roumania, Spain, Venezuela, Yugoslavia.

The Health Organisation awarded 14 scholarships. Field work was carried out as usual in Spain, Yugoslavia and Italy.

During the courses, the Secretary of the Commission got into touch with the Directors of the Schools and spoke to the participants about the work of the Malaria Commission. The information collected will be discussed at a meeting of Directors of Schools of Malariology to be held at the beginning of October. Consideration will be given to the grouping of participants according to the extent of their knowledge of the subject.

#### B. MEETING OF THE MALARIA COMMISSION AT ALGIERS (MAY 20th TO 21st, 1930).

The Malaria Commission, which met at Algiers during the Second International Malaria Congress, was attended by 25 members and experts who were also attending the Congress. Two of them, Professor LUTRARIO, President of the Commission, and Professor W. A. P. SCHÜFFNER, submitted reports to the Congress, one on the work of the Malaria Commission and the other on the visit to India.

The Commission's agenda was as follows:

1. Report on the study-tour in India.
2. Secondary alkaloids and quinetums.
3. Malaria in the deltas (Danube, Ebro, Po).
4. Miscellaneous:
  - (a) Letter from the Kina Bureau;
  - (b) Study-tours;
  - (c) Interchanges of malariologists from tropical countries;
  - (d) New corresponding members, etc.;
  - (e) Spread of malaria during recent years.

1. *Visit to India.* — The report was submitted by Professor Schüffner, President of the group. The tour, which lasted from August 23rd to December 28th, 1929, included a study of the epidemiological factors in the malaria problem in India and a study of the anti-malarial work carried out and the methods employed in that vast country. The Commission's itinerary had been arranged to enable members to obtain some idea of the various local problems, more particularly malaria in the towns; the periodicity of epidemic waves which sometimes assume menacing proportions in the Punjab; malaria in the Ganges delta (in Bengal)—another type of rural problem—and the problem of hyperendemic malaria in the hill country on the mountain spurs.

The Commission had an opportunity of studying the anti-malarial methods employed in agricultural centres (in tea plantations in particular) and in various industrial settlements: railway-construction gangs and station staff; mines; big hydrotechnical works and other industrial agglomerations, where protective measures are required for workers. The visit to the Lahore cantonments showed the value of proper mechanical means of protection, with a view to safeguarding this vast settlement, situated in the heart of an area exposed to epidemic waves of malaria. The towns of Delhi, Saharanpur, Lucknow, Bombay and Bangalore showed the results of measures based on excellent scientific investigations. The example of certain villages—Hsipaw, Lashio, Ennur, for example—showed the difficulties encountered in rural districts, difficulties which one might be tempted to think insurmountable. These reveal the scientific value of the researches of the Malaria Survey of India on the various aspects of the problem. To this same institution India owes her Malariologist School at Kasauli, which provides instruction for the technical staff. The training of the auxiliary staff is carried on in the schools attached to the Provincial Health Institutes. The results of the anti-malaria campaign in those settlements where it has been undertaken suggested to the Rapporteur recommendations for a general plan, though this would require bigger grants than are at present given by the local district authorities or municipalities, the Government having entrusted the latter with very heavy responsibilities in leaving them to find the money for anti-malaria measures.

The Commission felt that rural medical assistance and persistent propaganda demonstrating the efficacy of quinine would be useful to supplement anti-malaria work. Hence the recommendation that in India the rural Public Health Service should undertake cures and should therefore be, at the same time, a medical service. In the big cities, the success of the campaign depends largely on close co-operation with the public health authorities, Bangalore being a notable example.

The report on the study tour was carefully examined at a preliminary meeting of the Indian group with General J. D. GRAHAM, Public Health Commissioner with the Government of India,

and Colonel S. R. CHRISTOPHERS, Director of the Indian Central Research Institute, and was then submitted to the Malaria Commission, which, after discussing it, passed the following resolution:

“ The Malaria Commission approves this report and decides to submit it to the Health Committee at its next session. ”

2. *Secondary Alkaloids and Quinetums.* — The Secretariat placed at the disposal of members of the Commission all the documents concerning the researches instituted by the Health Organisation (documents C.H./Malaria/84 and addenda and C.H./Malaria/137), a great deal of information (documents C.H./Malaria/139 and 144) on the therapeutic efficacy and the preventive action on relapsed cases of the various cinchona alkaloids and cinchona febrifuge, a summary of the work done in India (source: Major SINTON), document C.H./Malaria/146 on the efficacy of cinchonine and cinchonidine in human malaria and bird malaria, document C.H./Malaria/140: “ The Therapeutic Value of Mixture of Plasmochin and Quinine ” (by I. J. KLIGLER and G. MER). Document C.H./Malaria/142 (“ *Les quinetums et les alcaloïdes secondaires dans le traitement du paludisme* ”) summarises the therapeutic results obtained with alkaloids as the outcome of the researches instituted by the Health Organisation or carried out by a number of researchers. A critical analysis of these data led to the following conclusions: Quinine is superior to other secondary alkaloids in the treatment of malaria; the four principal alkaloids are of equal efficacy in the prevention of relapses; mixtures of alkaloids containing 60 to 80 per cent of crystallisable alkaloids are equal in efficacy to quinine.

The discussion on the treatment and prevention of relapses embraced other remedies, in particular compound Plasmochin, Stovarsol and Quinio-stovarsol, the results being summed up in Resolution 2 of the meeting as follows:

“ The Malaria Commission,

“ Having examined the latest reports on the properties of the secondary alkaloids of quinine and quinetums, after discussing the data collected;

“ Considers the experimental documentary material collected up to date to be of real practical value and sufficiently copious and advanced to admit of reliable conclusions being drawn from it for the purposes of the anti-malaria campaign;

“ Proposes, therefore, that a first report be published for the use of the Public Health Administrations concerned.

“ Considering, further, the fact that certain questions relating to the action of quinetums in the long run and their preparation and control are not yet finally elucidated, the Commission points out the advisability of continuing researches in these directions, in accordance with the programme approved at previous meetings and in co-operation with the Italian Government Quinine Factory.

“ The Commission recommends, further, that the Secretariat be asked to collect complete information on Plasmochin, Stovarsol and Quinio-stovarsol.

“ The Commission expresses its desire to be supplied, with the help of specialists, with accurate data — agricultural, technical and economic — which would enable it to reach a practical conclusion as to the cinchona alkaloid consumption to be recommended to the public.

“ The Commission notes the proposal of the Kina Bureau and proposes that the Health Committee should take a decision in the matter.”

3. Professor PITTALUGA made a statement concerning the Ebro delta; the observations of Professor CANTACUZÈNE and Professor ZOTTA were summarised in a second report (document C.H./Malaria/143). This material will be printed in three languages (Spanish, French, Italian) with the help of the *Rivista di Malariologia*, the *Spanish Review of Tropical Diseases*, and the *Roumanian Archives of Experimental Pathology*. After the 1930 and 1931 study tours it will be possible to compare the results obtained up to date in the three deltas.

The Malaria Commission expressed the desire to devote a special session to the examination and discussion of the problems of the deltas of the Danube, the Ebro and the Po, and to pursue these studies with reference to the work in the deltas of big rivers in general.

4. *New Members of the Malaria Commission.* — The Commission, proposed to co-opt as corresponding members the experts and persons following:

MAJOR J. A. SINTON, V.C., O.B.E., I.M.S., Director of the Malaria Survey of India, Kasauli;

Major G. COVELL, I.M.S., Assistant-Director of the Malaria Survey of India, Kasauli;

Dr. C. A. BENTLEY, Director of Public Health for Bengal, Calcutta;

Dr. Senior WHITE, Chief Malariologist of the Bengal-Nagpur Railway;

Professor Makoto KOIDZUMI, of the Faculty of Medicine at the Keiô University, Tokio;

Professor F. MUEHLENS, of the Institute of Tropical Diseases, Hamburg;

Professor G. ZOTTA, Professor of Parasitology, Faculty of Medicine, Bucharest;

Professor Edmond SERGENT, Institut Pasteur d'Algérie, Algiers;

Dr. Marshall BALFOUR, Director of the Division of Malariology, Athens Centre;

Dr. Maurice PELTIER, Professor of Social Hygiene, Ecole d'application du Service de santé colonial, Marseilles;

Surgeon Louis WILLIAMS, Chief of the Anti-Malaria Section, United States Public Health Service, Washington.

5. *Study-tours.* — The discussions on the other points on the agenda resulted in the adoption of the following two resolutions:

“ The Malaria Commission,  
“ Realising once more the value of study-tours in malarial countries;  
“ Recommends that such tours should be continued in North Africa, tropical Africa and the Netherlands East Indies. ”

“ The Malaria Commission,  
“ Considering it highly important to co-ordinate the malaria investigations in tropical countries with the best anti-malaria methods applied on any considerable scale in the malarial countries visited up to date;  
“ Recommends that a collective tour of malariologists from tropical countries should be organised, and that a larger number of colonial doctors intending to engage in anti-malaria work should attend the malariology courses, organised by the League of Nations Health Organisation. ”

6. *Research.* — The Kuala Lumpur Institute sent to the Health Organisation a memorandum by Richard Green, entitled “ Observations on some factors influencing the infectivity of malarial gamete carriers *A. maculatus* in Malaya ”, and three other memoranda by the same author on the treatment of crescent carriers with compound Plasmochin, the treatment of quartan fever with Plasmochin and Dimeplasmin treatment.

In connection with the problems investigated by the Malaria Commission, the Secretariat received the report by I. J. KLIGLER and G. MER (document C.H./Malaria/141) on the “ Long-range dispersion of anopheles during the pre-hibernating period. ”

Of these various problems, one—the problem of treatment—has reached a stage which makes it possible to estimate the efficacy of alkaloid mixtures (quinetums, cinchona febrifuge, Panchina, Chineto, etc.) in the treatment of the disease and the prevention of relapses. The question now to be determined is whether it is feasible to standardise these products, so that they may contain the requisite maximum quantity of crystallisable alkaloids, including a limited percentage of quinine, and whether the costs of preparing them would thereby be increased.

The documents collected by the Commission during its study-tour reveal an *under-consumption* of quinine, a result of the obvious discrepancy between the enormous number of malaria cases and the world output of quinine. It would be useful, therefore, to have information from malarial countries on the following points: The approximate number of malaria cases in the country; the annual consumption of quinine during the past five years; the percentage of cases *not* treated owing to shortage of quinine; the actual quantity of quinine required for the treatment of all cases; and the minimum annual consumption of quinine that the individual malarial countries could guarantee over a period of 7 years.

These data appear essentials as basis for the memorandum concerning the consumption of quinine and secondary alkaloids, to be prepared for the Health Committee in accordance with the resolution of the Malaria Commission (Resolution No. II, see page 20).

## 2. LEPROSY COMMISSION.

The Secretary of the Commission concluded in September 1929 the enquiry entrusted to him in Latin America. Members of the Health Committee have received his report on his mission to Latin America (document C.H.833). Between January and June 1930, the Secretary carried out an enquiry on the Far East: India, Burma, the Federated Malay States and Straits Settlements, Netherlands East Indies (Java), Indo-China, the Philippines, China (Canton, Nankin, Hangchow, Shanghai), Japan and Honolulu. Although this enquiry could not be carried out in a detailed form, it permitted of conversations with representative leprologists, so that to-day the Leprosy Commission possesses direct information on all the leprosy countries except Africa and Australia. The secretary regrets that he did not have time to stop at the Carville Leprosarium (United States).

The Health Committee's action in the matter of Leprosy has undoubtedly aroused keen interest and approval in all countries and has everywhere met with enthusiastic support.

Special reports on the results of the enquiry and the lines on which the Leprosy Commission might work in future have been submitted to members of the Health Committee for the present session.

The enquiry established the capital importance of chaulmoogra, the efficacy of this treatment being to a very large extent the key to the world prophylaxis of leprosy. As regards prophylactic methods, leprologists appear to belong to two schools of thought, if not to two separate camps: Those who have only a limited confidence—sometimes very limited—in chaulmoogra treatment advocate the maintenance of compulsory segregation, while those convinced of its efficacy are supporters of what has long been known as the out-treatment of leprosy. Happily, despite this divergence of views, when faced with practical questions leprologists seem ready to agree on some plan of action.

A striking proof of the interest taken in the Commission's work is the desire to co-operate expressed by the Leonard Wood Memorial for the Eradication of Leprosy, resulting in a proposal for an international Conference to be organised jointly by the Health Committee and the Leonard Wood Memorial under the auspices of the League of Nations.

The British Empire Leprosy Relief Association has signified its readiness to participate.

The Missions, noted for their medical as well as their social services—the American Mission to Lepers, the British Mission to Lepers, the Chinese Mission to Lepers—are anxious to do all that lies in their power to further the Commission's undertaking.

Members of the Committee will appreciate the tribute paid by these various institutions to the prestige of the League and the Health Organisation. It will be remembered that the Conference, which was to have been held at Tokio at the end of March 1930 on the invitation of the Japanese Government, had to be postponed, several members of the Commission having found it impossible to attend.

The willing support of these institutions made it desirable to extend the scheme—which will still be a purely technical Conference under the auspices of the League—so that it might be really representative of the existing doctrines and methods of leprosy prophylaxis.

Thanks very largely to the breadth of view and the liberal proposals put forward by the Leonard Wood Memorial, this international Conference, now being organised, promises to be most successful; it is hoped that it may meet at Manila in January 1931. Members of the Health Committee will receive a report on the plan of the Conference.

### 3. JOINT COMMISSION ON PUBLIC HEALTH AND HEALTH INSURANCE.

No further meetings have been held either of the Commission or of its Sub-Commissions.

The Sub-Commission on Social Medicine had proposed to organise a collective study tour in 1930 in England and the Netherlands.

The Joint Secretariat (International Labour Office-League of Nations) has prepared a draft report which can serve as a basis of discussion for the Sub-Commission on Tuberculosis.

*Tuberculosis.* — The International Union against Tuberculosis held an international Conference from August 12th to 15th at Oslo, when Professor Léon BERNARD represented the Health Committee. The general report on tuberculosis mortality in Scandinavia, drawn up by Dr. OSTENFELD (Denmark), was submitted for discussion and approval to the two other investigators, Dr. HEITMANN (Norway) and Dr. NEANDER (Sweden). The three national reports were discussed at a meeting in September 1929 at Copenhagen, when Dr. Ostensfeld was appointed Rapporteur for both the general and comparative work.

*BCG.* — The question of BCG having been included for discussion in the agenda of the Oslo Conference, it was not necessary for the Health Organisation to convene a special Conference.

Studies were carried out in different countries in accordance with the plans adopted by the Conference of Experts in October 1928. The Secretariat has kept in touch with the bibliography on the subject; it has also compiled statistics from the data collected by various research workers, at the latter's request.

### 4. COMMISSION OF HEALTH EXPERTS ON INFANT WELFARE.

#### A. INFANT MORTALITY.

Memorandum C.H.820, prepared by the Health Section, contains all information concerning the organisation, object and methods of the enquiry on infant mortality in seven European countries, together with data from the national reports, which will be published separately.

One of the most important general results of the European enquiry was the distinction established between two big groups of facts: (1) still-birth and infant mortality during the first days of life; (2) digestive disturbances, acute infectious diseases and diseases of the respiratory system, accounting for later mortality. The deaths relate roughly to very early infancy and a somewhat later period. Syphilis appears to belong to the first group.

The enquiries failed to reveal the causes of premature births in a large percentage of cases; in all districts without exception the figures for unknown causes of death were very high in the case of still-births and mortality during the first days of life. In the second group, the aetiology, prevention and treatment of diseases of the respiratory system still include problems for solution through joint work by paediatrists and health experts. Premature birth, still-birth and mortality during the first days of life all require scientific research and the assistance of

obstetricians and pediatricists. Generally speaking, close liaison between the various authorities and bodies concerned is essential, with a view to the adoption of medical, hygienic and social measures for combating infant mortality.

The position as regards the extension of the enquiry to other countries in South America is dealt with in the present report, in connection with the Lima Conference held in July 1930.

So important is the enquiry from the standpoint of social hygiene that four European Public Health Administrations—Czechoslovakia, Roumania, Spain and Yugoslavia—are preparing to extend it to their territories. The methods and technique employed in this enquiry will be the same as in the original seven European countries. In order to reduce costs as far as possible, it would be well if existing institutions could be utilised while diagnostic control would be entrusted to competent pediatricists and obstetricians. Preliminary arrangements have already been made for these new enquiries to be carried out in 1931.

## B. RESEARCHES ON DIPHTHERIA AND SCARLET FEVER.

Researches on the Dick and Schick reactions and on anti-diphtheritic and anti-scarlet fever vaccination are being continued in different countries. Notes on the progress of the work have already been received from Czechoslovakia, England, France, Germany, Hungary, the Netherlands and Roumania.

Following on a preliminary enquiry by Professor DEBRÉ and GORTER in several countries (in accordance with the decision adopted at the fourteenth session of the Health Committee), a consultation of experts was held in Paris from July 4th to 6th, 1929.

The Conference, which was presided over by Professor MADSEN, adopted a common plan of study regarding immunisation against the two diseases, so that results may be readily comparable.

The researches are being carried out in Czechoslovakia, Denmark, France, Germany, Great Britain, Hungary, the Netherlands, Roumania and Yugoslavia.

The Health Organisation has already received information on the progress of the present experiments.

## 5. PERMANENT COMMISSION OF THE STANDARDISATION OF SERA, SEROLOGICAL REACTIONS AND BIOLOGICAL PRODUCTS.

The Health Committee, in a resolution approved by the Council at its fiftieth session (June 1928), recommended that the work of the Permanent Commission on the Standardisation of Sera, Serological Reactions and Biological Products should be communicated officially to the various Governments, together with the relevant documents, in order that the appropriate official action might be taken.

Memoranda C.H.734 and C.H.832 give a survey of the work of the Commission since 1921. It has already resulted in the international standardisation of the following products:

### I. SERA, BACTERIAL PRODUCTS AND PHARMACOLOGICAL PRODUCTS.

#### *Sera and bacterial products:*

Anti-diphtheritic serum,  
Anti-tetanic serum,  
Anti-dysenteric serum.

#### *Pharmacological products:*

Insulin, digitalis, ouabain (strophanthus);  
Pituitary (posterior lobe);  
Arsenobenzenes:

Dioxydiamino-arsenobenzene dihydrochloride (syn.: salvarsan, arsphenamine, arsenobenzol, etc.), its metallic derivatives (silver-salvarsan) and its sodium salts (sodium salvarsan);

Dioxydiamino-arsenobenzene sulphoxylate of sodium (synonyms: Neosalvarsan, Neorsphenamine; Novarsenobenzol, etc.);

Neosilver-salvarsan;

Sulpharsphenamine (synonym: Sulfarsenol).

Document C.H.734 deals with pharmacological products and Memorandum C.H.832 with sera and bacterial products. They contain fairly comprehensive information on the progress of the work in its relation to problems already solved and questions awaiting solution.

Prior to communication to Governments, a large part of the results was embodied in recommendations framed by several States. In Germany, Denmark and Great Britain, the majority of the Commission's recommendations have been put into effect under Government supervision. In Austria, anti-diphtheritic and anti-tetanic sera are standardised by the National Serum Control Institute; in France, similar measures are taken by the Pasteur Institute; in Greece, such measures

are applied at all events as regards the anti-diphtheritic serum; in Hungary and in Poland, the State Hygiene Institutes (Budapest and Warsaw) apply the methods and standards recommended by the Commission.

In reply to its communication, the Health Section received replies from a number of Governments:

*Egypt* has not yet enforced standardisation, but any laboratories established with this object will certainly follow the Health Committee's recommendations.

The *Sudan* receives all its products from abroad and has not itself applied standardisation.

In *Spain*, the Technical Verification Institute, founded in 1927, employs the standards recommended by the Health Committee.

*Haiti* imports its sera and biological products from Germany, Spain, the United States and France. The Director of the National Public Health Services has informed his Government that he is adopting the standards recommended by the Health Committee.

The *Irish Free State* intends shortly to bring in a Bill concerning standardisation. The Government will support the Health Committee's recommendations most energetically when the Bill comes before the Dail.

*Iceland* receives all her sera from Copenhagen, and, in practice, follows the Health Committee's recommendations, as the Copenhagen State Institute is responsible for the standardisation of all sera in Denmark. As regards biological products, nothing has yet been decided. Iceland receives such products from private firms in other countries.

*Lithuania* is engaged in the preparation of a new pharmacopœia which will embody the methods of standardisation recommended by the Health Committee. The University has proposed setting up an institution to be responsible for standardisation work in general.

*Monaco* imports all the products in question from the big French firms; the question of standardisation does not arise.

In the *Netherlands* anti-diphtheritic and anti-tetanic sera are already being standardised in accordance with the Health Committee's suggestions. The question of anti-dysenteric serum is still under consideration and the international unit will probably be adopted. The recommendations concerning blood groups are already being applied.

*Turkey* has adopted the international standard for anti-diphtheric serum. The standardisation of the other sera will follow shortly.

*Uruguay* has adopted the recommendations in practice.

*Yugoslavia*, by the Law of January 31st, 1930, finally adopted sera standardisation, in conformity with the Health Committee's recommendations. The standardisation of biological products is at present being studied by a special Committee to which the question was referred by the Government.

*Colombia*, *Estonia*, *Mexico*, *Peru*, the *Dominican Republic*, *San Salvador* and *Venezuela* have said that they will forward their replies in due course.

*Iraq*, *Liechtenstein* and *Siam* have acknowledged receipt of the communication.

The State Serum Institute of Copenhagen and the National Institute for Medical Research of London have continued to act as central laboratories for the co-ordination of standardisation researches carried out in the different countries. They are also the centres for the distribution of standards to all the Governments and to private and State institutions. Last year, a large number of requests for standards was received by the Health Section, which duly complied with them.

## 2. DETERMINATION OF BLOOD GROUPS.

The Laboratory Conference on Blood Groups was held at Paris from July 21st to 25th, 1930, at the Pasteur Institute. Eleven members took part in the laboratory tests—*i.e.*, tests of increasing dilutions of twelve sera against homologous blood corpuscles. The results represented an advance on the tests carried out by the participants with the same sera in their respective laboratories. It was not found possible, however, to arrive at perfect concordance between the results obtained by the different experimenters.

The discussion covered the following points:

1. *How to achieve more Perfect Uniformity.* — The Conference framed a questionnaire to be communicated to the different researchers; this will form a basis for a precise technique which will in future be recommended to all participants for the purpose of comparing results. Special attention was devoted to the deterioration of sera in transport. It was proposed that future research should include new standards of dried sera prepared by evaporation *in vacuo* and rabbit sera immunised against sheep's blood corpuscles (anti-sheep serum) in place of human serum B (anti-A).

2. *Nomenclature.* — The Committee directed attention to the following resolution of the Frankfort Conference (April 25th, 1928):

" The Commission,

" I. Learns with satisfaction that, on the initiative of the Health Organisation of the League of Nations, the nomenclature proposed by VON DUNGERN and HIRSZFELD for the

classification of blood groups has been generally accepted, and recommends that this nomenclature shall be adopted for international use, as follows:

“ O            A            B            AB

“ To facilitate the change from the nomenclature hitherto employed, the following is suggested:

“ Jansky . . . O(I)        A(II)        B(III)        AB(IV)  
“ Moss . . . O(IV)        A(II)        B(III)        AB(I)

“ II. Recommends the adoption of the following method of designating test sera:

“ Test-serum A (anti-B),  
“ Test-serum B (anti-A).”

The Conference believed that this object might be attained:

- (a) If each institute which supplied standard sera used solely this nomenclature;
- (b) If the editors of scientific journals (medical, legal, etc.) insisted upon the exclusive use of this nomenclature in all the works they might be called upon to publish. It was particularly desirable that all the more important weekly medical journals should also conform to this rule.

The Conference recommended that the Permanent Standardisation Commission should arrange to have these resolutions communicated to the persons and bodies concerned.

The Conference further recommended, for historical reasons, that the blood-group reaction should be called by the name of the scientist who discovered it and should henceforth be described as the “ Landsteiner Test ”.

3. *Study of Atypical Cases.* — The Conference recommends that all members who may observe such cases should collect the data most carefully and forward samples of the sera to the other institutes for purposes of control. The results of all these experiments will be sent to the Permanent Standardisation Commission which will communicate the documents to all the researchers specially interested in the question.

4. *Accidents due to Transfusion.* — The Conference recommends a detailed study of all accidents and disturbances consequent on blood transfusion. It framed a questionnaire for the purposes of this study and recommended that its members and other experts should forward their results to the Permanent Standardisation Commission, which will communicate them to all the investigators concerned.

5. *Donors.* — The Conference requested the Permanent Standardisation Commission to collect all possible information on the methods employed in the various countries for obtaining donors.

6. *Records.* — In view of the scientific importance of researches on blood groups, the Conference urged all researchers in the matter to preserve the records of their experiments as carefully as possible.

## 6. COMMISSION OF EXPERTS ON SYPHILIS AND COGNATE SUBJECTS.

### A. ENQUIRY INTO THE TREATMENT OF SYPHILIS.

The retrospective enquiry into the treatment of syphilis, organised in Germany, Denmark, the United States, France and Great Britain, with the assistance of dermatological and anti-venereal clinics, is being conducted on co-ordinated lines by the following experts and their assistants:

In Germany: Professor JADASSOHN (Breslau), and his former assistant, Professor MARTENSTEIN (Dresden).

In Denmark: Professor RASCH (Rigshospital, Copenhagen), and his assistant, Professor LOMHOLT.

In the United States: Dr. Th. PARRAN, Junr., of the Washington Public Health Service, Chairman of the Scientific Committee of Research into Syphilis, Inc., of New York, to whom this work has been entrusted by Surgeon-General CUMMING and Dr. J. H. STOKES, of the University of Pennsylvania.

In France: Professor L. QUEYRAT, President of the National French League against the Venereal Danger, assisted by Professor J. PERONI.

In Great Britain: Professor L. W. HARRISON, of the Ministry of Health, Director of the Dermatological Clinic of St. Thomas's Hospital.

Most of the clinics which were approached have replied. In February 1930, 20,000 case records had already been received and another 10,000 were expected. In an enquiry of so far-reaching a character, the experts have had to overcome many difficulties in connection with the actual wording of the records, Wassermann reactions, lumbar punctures (see document C.H.854 and annexes). It was found necessary to establish a uniform classification of the different methods of treatment and to define the results obtained in the different stages of the disease. A system of records was prepared by Professor JADASSOHN and Professor MARTENSTEIN (document C.H.773 and annexes).

In order to compare the results obtained up to the present in the various countries, a meeting of experts was held at Copenhagen during the International Congress on Venereal Disease, Skin Diseases and Syphilis, from August 4th to 9th, 1930.

Professor MARTENSTEIN announced that he had 23,500 records available, of which 20,000 were suitable for statistical purposes. Since, however, 15 per cent were rather doubtful as regards certain points, it was decided, on Professor WESTERGAARDS' proposal, to study the two groups separately. The meeting also gave an opinion on certain details of classification and the final form in which the results should be submitted.

As the number of cases of congenital syphilis and syphilis during pregnancy are too limited for statistical purposes and the treatment of these cases has been dealt with in the existing literature, the meeting decided not to include them in the present statistical enquiry.

Colonel HARRISON submitted to the meeting a note on the new method of treatment which has given better immediate results than the one hitherto employed, and expressed the hope that the experts might be able to apply this new method. If, as is hoped, his results are confirmed, it should be very useful for the treatment of sailors and other cases for which it is difficult to apply the system of injections at short intervals.

## B. SERO-DIAGNOSIS OF SYPHILIS.

The Health Organisation took advantage of the presence of a number of serological experts at the eighth International Congress on Venereal Disease, Skin Diseases and Syphilis (Copenhagen, August 1930), to carry out comparative tests with various new methods.

Six investigators tested different flocculation methods and the Bordet-Wassermann reaction. The Kahn, Kline, Meinicke (micro-methods) and Muller (M. BR. 2) flocculation methods gave concordant results and a high degree of sensibility and specificity, as far as can be judged from the small number (26) of samples examined. In the discussion which followed, the experts thought it desirable to draw the attention of all the serologists and specialists in venereal disease of the countries represented at Copenhagen to the principles of the sero-diagnosis of syphilis, as laid down in the resolutions of the Second Laboratory Conference at Copenhagen in 1928.

They expressed the hope that the Health Organisation would take steps to bring these principles to the knowledge of the medical profession all over the world through the medium of the medical Press.

At meetings of the Congress, Professor JADASSOHN and Professor MADSEN read monographs on the principles of sero-diagnosis and recent progress in the matter.

## 7. COMMISSION ON TEACHING OF HYGIENE AND PREVENTIVE MEDICINE.

### A. PARIS MEETING (MAY 20TH TO 22ND, 1930).

The meeting of Directors of Schools of Public Hygiene, convened at Paris (May 20th to 22nd, 1930) at the League of Nations Office, followed on the meetings at Warsaw (1926), Budapest and Zagreb (1927). It was felt that the moment had come, after these preparatory meetings, to lay down a basic programme for schools of hygiene; the different items of the various programmes having been analysed and compared. That was indeed the request put forward by the President of the Commission on Education in Hygiene in memorandum C.H.759 (October 1928).

The purpose of the Paris meeting, like that of the earlier meetings, was to promote progress in public health and preventive medicine, and above all to determine whether certain general principles could be established for the teaching of hygiene in all countries, even though conditions may vary. The relations between public health officials and the medical profession; between schools of hygiene on the one hand and universities and public health administrations on the other; the importance of scientific research; the training of health officials, sanitary engineers and their auxiliary staff; the importance of field work; the part to be played by schools of hygiene in the education of the masses—these various questions, already touched upon at the previous meetings, were again discussed at the Paris meeting. The agenda also included the following two questions:

1. Exchange of views regarding the present evolution of the work of schools of public hygiene and the conclusions to be drawn therefrom;
2. Consideration of a plan for the creation of a central field health station at Nanking (in conformity with the request of the Ministry of Hygiene of the Chinese National Government).



As a basis for its study of the first of these two questions, the meeting had before it a number of reports and monographs:

- “ The Teaching of Hygiene in the German Reich ”, by Professor C. PRAUSSNITZ;
- “ The Present-day Evolution of Schools of Hygiene ”, by Professor J. PARISOT (of Nancy);
- “ The Work of the London School of Hygiene and Tropical Medicine ”, by Sir Andrew BALFOUR and Professor W. JAMESON;
- “ The Training of Public Health Personnel in Hungary ”, by Professor B. JOHAN;
- “ Note on the Budapest ‘ Improvement ’ Course for Medical Practitioners ” (Hungarian Central Committee for the Perfecting of Medical Studies), by Dr. E. DE GRÓSZ;
- “ Information concerning the State School of Hygiene at Warsaw ”, by Dr. W. KACPRZAK;
- “ The Prague School of Social Service and the Rôle of the Czechoslovak State Institute of Public Hygiene in the Training of Public Health Personnel ”, by Dr. B. VASEK and Dr. H. PELC;
- “ Organisation and Work of Schools of Public Hygiene, more particularly in Yugoslavia ”, by Dr. A. ŠTAMPAR.

The question of field work was discussed, after a statement by Professor GRANT (Peiping). Six months would seem to be the ideal, while three months' training is the very minimum, provided, too, that it is entirely devoted to practical work. Conditions in the various countries are so different that it is difficult to give any indication as to how field training should be organised. Whether the school should take charge of practical work in a district for which it is entirely responsible, or whether the student should be placed under the guidance of doctors who are hygiene experts and of hygiene officials known to be experienced teachers and capable organisers. The examples of Yugoslavia, Poland and Peiping were given special consideration. The meeting was of opinion that if field work is to be of any use it must constitute a course of practical training rather than teaching.

Adopting Professor HOWELL'S views, the meeting agreed that scientific research in schools of hygiene was indispensable in creating an invigorating atmosphere and encouraging students to do their best, and that scientific research had its place in schools of hygiene as well as in universities.

In connection with the training of sanitary engineers and training for future medical health officers to be included in the regular programme of schools under the heading of “ Sanitary Engineering ”, after a statement by Dr. Norman WHITE, the present needs of Greece, and the methods adopted at the Polish school at Warsaw and the Budapest school were examined, the following conclusions being arrived at: there is a distinction between the powers and duties of hygiene experts proper and sanitary engineers. Sanitary engineers require a more extensive knowledge of certain special subjects (water systems, drains, disposal of domestic refuse, malaria). Generally speaking, each branch should be taught as a corollary of the other; sanitary engineering should be represented at the school of hygiene by a sanitary engineer, while the school of hygiene should be represented at the school of sanitary engineering by a hygiene expert.

These discussions were all preliminary to the framing of a general programme for the work and curriculum of schools of hygiene. Professor Howell urged that physiology should not be merely optional as a subject, considering its importance as applied to nutrition (scientific research and dietetics) and the influence of environment on the organism (atmospheric conditions—radiations—muscular and mental fatigue).

Social welfare needs should induce schools of hygiene to go beyond the mere training of sanitary staff. The extent of such work will depend on the progress and rate of progress of civilisation and general education in any given country. For instance, in Yugoslavia the school of hygiene is tending to become not merely the centre but the generating force of all public health instruction, including instruction for teachers and the masses. One very important aspect is the question of educational films, a matter in which the Rome Institute of Educational Cinematography and the Health Organisation might usefully co-operate. The general conclusion arrived at by the meeting was that the school of hygiene should be a progressive institution adapted to the requirements of the particular country, and that it should be made a centre for public health education in the widest sense of the term, without, of course, allowing this to interfere with the spirit of scientific investigation to which it must always owe its real impetus.

The Conference discussed certain suggestions concerning the establishment of a school of hygiene at Nanking, in conformity with the request addressed to the League of Nations by the Chinese Government. The meeting adopted these recommendations.

The Chinese organisation would be a central station responsible for all the technical services of the Ministry of Health and for: (a) the establishment of experimental and investigating institutions; (b) practical field work demonstration; (c) the training of technical staff (see document C.H.876).

## B. DRESDEN MEETING (JULY 14TH TO 18TH, 1930).

The second meeting of the Directors of Schools of Hygiene took place at Dresden from July 14th to 18th, 1930, following on the Paris Conference (May 20th to 23rd, 1930).

The agenda included:

1. Discussion of the report drawn up after the Paris meeting, more particularly the establishment of a minimum programme for schools of hygiene.
2. The practical and theoretical instruction given to medical students regarding preventive and social medicine, which instruction should form the real basis of the future work of every physician and should also constitute the foundation of the teaching given in schools of hygiene.
3. Supplementary instruction in preventive and social medicine for medical practitioners, sanitary officers (medical officers and engineers), and auxiliary sanitary staff.

1. *Schools of Hygiene.* — The following conclusions were adopted:

The necessity for establishing national schools of hygiene as autonomous institutions;  
The desirability of ensuring their close co-operation with the universities;  
The need for original research work in order to maintain the necessary scientific atmosphere.

The Conference drew up a minimum programme of instruction for health officials, to include the basic sciences, elements of sociology, social services, social insurance, legislation and administration.

The Conference is of opinion that:

- (a) Practical field work should constitute an essential part of the professional training of medical hygiene specialists;
- (b) This work ought to cover at least three months—*i.e.*, a third of the total duration of the studies;
- (c) It should consist as far as possible of actual participation in hygiene work and field research.

The Committee strongly recommends the application in all countries of a law requiring candidates for municipal or Government public health posts to hold diplomas of the school of hygiene.

Finally, the Committee drew up rules for the administrative organisation of schools of hygiene.

2. *Theoretical and Practical Teaching of Hygiene to Medical Students under the Various Faculties.* — After a discussion in which the principal speakers were Professor JAMESON and Professor PARISOT, the Conference adopted a series of conclusions:

Introduction of the orientation towards preventive medicine and social hygiene in the teaching of medicine:

- (a) Teaching professors should on every occasion emphasise preventive methods in connection with their particular subjects, so that medical teaching as a whole may be permeated with the idea of prevention;
- (b) The student, having thus received a thorough preparatory training, should complete his studies by attending the final course given by a professor of hygiene.

Curative medicine and preventive medicine should not be allowed to form two entirely separate groups.

The student will serve a practical apprenticeship as a hygiene expert if he is obliged to take an active part in the various branches of dispensary and medical relief work, under the supervision of public health officials.

Although examinations are less important than the actual training, the teaching of hygiene should be incorporated in examinations, while particular stress should be laid on the "preventive aspect" of each subject.

3. *Additional Training.* — This is of two kinds:

- (a) Specialised training to prepare the student for particular work;
- (b) Periodical refresher or improvement courses, to keep officers informed of the latest progress in the science of applied public hygiene.

This training is for three classes of attendance:

- (a) Medical practitioners, who must be catered for mainly from the point of view of social work, to supplement their university training in the matter of hygiene and social medicine;
- (b) Medical hygiene specialists wishing to perfect their professional knowledge;
- (c) A number of district medical officers who only devote part of their time to health work.

The additional courses for public health officers and medical practitioners should be given regularly at frequent intervals; the teaching will be more successful if the courses are fairly long and if each includes only a limited number of participants.

Additional instruction should also be given to auxiliary and technical public health staff—for instance, inspectors of education, sanitary engineers, sanitary inspectors, visiting nurses and midwives. If the staff is still inadequately qualified—when, for example, the development of the services has been more rapid than the recruiting of specialised staff—additional instruction becomes even more necessary, to ensure that the staff shall be fit to carry out its duties.

In order to encourage such persons to attend the courses they should, if circumstances permit, be given board and lodging and an allowance.

4. *Proposals concerning Museums of Hygiene.* — The Conference had an opportunity at Dresden of visiting the Exhibition and laboratories of the German Museum of Hygiene (*Deutsche Hygienemuseum*). It formed a Sub-Commission to study in detail the organisation of museums in connection with all schools of hygiene in the various countries. One of the main points was to decide the minimum programme that a museum attached to a school of hygiene could be expected to carry out. The Conference asked the authorities of the German Museum to appoint one of its technical experts to assist the Sub-Commission.

#### C. REPORT BY PROFESSOR MIYAJIMA ON THE METHODS OF ATTRACTING TO THE SCHOOLS OF HYGIENE THE STUDENTS BEST QUALIFIED FOR PUBLIC HEALTH WORK.

The report mentions the lower scale of salaries paid to medical officers in the health services, as compared with other branches of the medical profession, and the methods of obtaining a higher standard in order to attract candidates for these posts. Professor Miyajima's report suggests the adoption in the various countries of the Polish system of recruiting public health personnel whereby candidates are appointed on a provisional basis and then receive a complete training in a school of hygiene.

The Conference referred the question to the Health Committee, the members of the Conference being requested to collect the necessary information as soon as possible (document C.H.88r).

### 8. OPIUM COMMISSION.

#### I. APPLICATION OF ARTICLES 8 AND 10 OF THE INTERNATIONAL OPIUM CONVENTION OF GENEVA.

The Permanent Committee of the Office international d'hygiène publique examined, at its session of May 1930, the questions submitted to it by the Health Committee. Its decisions are published in a special document (C.H.892).

#### 2. REPORT ON THE WORLD CONSUMPTION OF OPIATES AND COCAINE.

At the request of the Chairman of the Advisory Committee on Traffic in Opium and other Dangerous Drugs, the Health Section completed its previous report on the world consumption of opiates and cocaine (document O.C.III2) by means of data relating to the year 1929.

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## VI.

### POSITION OF STUDIES AND ENQUIRIES.

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#### I. WELFARE OF THE BLIND.

Following Sir George BUCHANAN's proposal which was approved at the eleventh session of the Health Committee, a circular letter was sent out to the health administrations of fifty-six countries, with a questionnaire on the measures adopted for the welfare of the blind. At the beginning of 1929, twenty-seven countries had sent their replies, on the basis of which a report was prepared (September 1929) as a result of very close co-operation between Mr. F. R. Lovett, of the British Ministry of Health, Mr. G. Hawley, of the Scottish Health Service, and the Social Insurance and Disabled Soldiers Service of the International Labour Office.

The first part of the report is an analysis of the subject; the second, in the form of an annex, is a collection of all the official data received.

Apart from the measures taken in various countries to protect persons already blind, information has been added concerning the causes and prophylaxis of blindness whenever such information was included in the replies.

The social protection of the blind varies greatly in different countries: some link it up with the system of social insurance; others have special laws on the subject; in others, blind persons receive pensions as being incapacitated for work; while in some cases they are left to the care of philanthropic associations or hospitals.

Several members of the Executive Committee of the Preliminary Conference for the Welfare of the Blind, which met at Vienna in 1929, requested the Secretariat of the League to outline for it a programme of work on current problems. They propose to establish an International Centre for information and study.

An unofficial meeting took place at Geneva on May 14th and 17th, 1930, at which were present delegates of the Executive Committee of the Vienna Preliminary Conference and certain members specially appointed by the League Secretariat and the International Labour Office. The discussion showed that, although the Health Organisation had undertaken the enquiry at the request of an interested Government, there was no reason why it should not provide the International Centre with all the technical information it might require, by communicating to it further replies received from Governments to the questionnaire on the blind, and other information from various sources. Reciprocally, the Health Organisation would be glad to receive any information from the Centre, as soon as the latter was established.

## 2. REPORT ON THE QUESTION OF TRACHOMA.

On the basis of the replies received from fifty-seven countries and territories to the circular letter sent by the Secretariat to the health administrations of the countries in which trachoma is prevalent, a report was drawn up with the help of Dr. JITTA and Dr. LUTRARIO, two specially qualified members of the Health Committee.

According to the recommendation made by Dr. Jitta and Dr. Lutrario to the Health Committee, the report has been printed (see document C.H.822(1)), and communicated to the health administrations concerned and to the members of the International League for Combating Trachoma, which met for the first time at Geneva at the end of July 1930. The two main objects of this League are as follows: (1) to study the results obtained during the last ten years in the etiology, prophylaxis and diagnosis of trachoma as an international disease; (2) to co-operate with the International Health Organisations.

That the Health Committee approves the establishment of the new League is shown by the fact that it has mentioned it in its report and has asked the Council of the League of Nations to bring its formation to the knowledge of States Members, and requests the latter to give their moral support to this charitable organisation, whose work can only become effective through international co-operation.

In order to maintain contact with this institution, the Health Organisation had appointed Dr. Lutrario to be observer.

## 3. QUESTION OF ALCOHOLISM.

In accordance with a resolution of the Health Committee at its thirteenth session in October 1928, the Medical Director asked the Health Administrations of Finland, Poland and Sweden—the countries whose delegations had recommended that the question of alcoholism should be taken up by the League of Nations—for suggestions as to the special points on which an international enquiry could best provide these three administrations with the information they required. The Director of the Swedish Medical Service replied by a memorandum which begins with the observation that the limitation imposed on the Health Committee by the Assembly makes the solution of the problem more difficult. The Swedish Administration points out that a number of enquiries proposed by a private meeting of specialists on questions of alcoholism at The Hague in January 1929 do not come within the scope of the Swedish Medical Service; and that the other proposals made at this meeting referring to purely medical questions, or questions of medical statistics, are so vast that there must be some limitation at the outset.

The Swedish Administration has undertaken a special enquiry to determine in what quantity the presence of alcohol in the blood or in a person's breath may justify the presumption that he is under the influence of alcohol. It will, if the Health Committee so desires, submit the results of this enquiry.

The Director of the Finnish Medical Service proposes that, in the event of an international enquiry into alcoholism, the Health Section should devote its attention to the four following points:

- (a) Statistics regarding causes of death;
- (b) Death certificates issued by doctors;
- (c) Case-record cards for use in hospitals;
- (d) The quality and quantity of alcoholic beverages consumed.

The report also recommends that if the enquiry is to be limited mainly to what are known as low-grade alcohols, the effects produced by alcoholic beverages should not be neglected, but studied simultaneously.

The Finnish Health Administration thinks that the various points raised in the memorandum of The Hague meeting could be studied in connection with the four points it suggests as bases for the international enquiry.

The Polish Health Administration agrees with the views of the Finnish Administration.

The replies received from these health administrations have been communicated to the members of the Health Committee.

The Medical Director has addressed a further letter to the health administrations concerned asking them:

1. What, following on the studies these three administrations have conducted into the question of alcoholism, are the data of international character which they require and which the Health Organisation might provide?
2. Among the latter, which are the most urgent and call for most careful enquiry

#### 4. PHYSICAL EDUCATION.

It seemed desirable to the Health Committee to have a comparative study of the experiments conducted in various centres of higher study with regard to:

- (1) The choice of professors of physical education and their training;
- (2) The methods of physical instruction in schools of every kind;
- (3) The general opinion of hygienists regarding the programmes to be followed;
- (4) The results obtained in various countries, the difficulties encountered, and the advantages which would result from international co-operation.

Two experts, Professor PIASECKI (Director of the Higher Institute of Physical Education of the Faculty of Medicine at Poznan), and Dr. Taku IWAHARA (Inspector of Physical Education in the Section of School Hygiene in the Ministry of Public Instruction at Tokio), each visited some of the following countries: Austria, Belgium, Czechoslovakia, Denmark, France, Germany, Great Britain, Italy, the Netherlands, Norway, Poland, Sweden, Switzerland, the Union of Soviet Socialist Republics, and Yugoslavia.

Professor Piasecki has already submitted a preliminary comparative study of the physical education movement from the point of view of a possible co-ordination of research work on this subject. The most important chapters of his study refer to the following points:

- (1) The various international methods of physical education;
- (2) Centres for the training of specialists; scientific centres;
- (3) Problems which arise out of this enquiry;
- (4) Need for and possibility of international co-operation.

This enquiry concludes that physical education, under medical supervision, should logically precede the preparation for athletics, and that the plan of gymnastic exercises should be determined by:

- (1) The state of the nervous system;
- (2) Education in breathing;
- (3) A graduated system, with a view to avoiding fatigue in the biological sense of the word.

As regards the irrational application of gymnastics, the value of open-air sports and activities, and inter-school competitions, whether national or international, should be studied, with a view to discouraging "record-hunting", which leads to an overdoing of otherwise beneficial and esthetic exercises, and endangers their favourable effect on mind and body.

- (4) The preparation of teaching staff, the definition of fundamental principles, and of a "minimum standard" which would be the same in all schools.

The following would seem to be the main questions that might be discussed by the Health Committee:

- (1) Scientific criticism of the various groups of exercises;
- (2) The "hygiene of effort"; counter-indications precluding the exercises;
- (3) Drawbacks and dangers, and pathological effects of excess in the matter of athletics;
- (4) Appointment of a Committee on Physical Education, including physiologists, experts and educationalists.

One of the members of the Health Committee has undertaken to study the question of the appointment of medical officers as directors of athletics and the results already obtained in university centres in which this system has been adopted.

ANNEX 4.

C.H. 916.

CREATION IN PARIS OF AN INTERNATIONAL CENTRE  
FOR ADVANCED HEALTH STUDIES.

A. LETTER OF THE SECRETARY-GENERAL TO THE HEALTH COMMITTEE  
TRANSMITTING THE RESOLUTION ADOPTED BY THE COUNCIL  
ON SEPTEMBER 24th, 1930.

Geneva, September 25th, 1930.

I have the honour to transmit herewith the text of the resolution adopted by the Council of the League of Nations at its meeting on September 24th, 1930, on the proposal by the French Government concerning the creation in Paris under the auspices of the League of Nations of an International Centre for Advanced Health Studies.

By this resolution the Council invited the " Health Committee and the competent services of the Secretariat to undertake a technical study of the project, on the basis of detailed information to be supplied by the French Government and of the observations contained in the report presented by the Rapporteur, and to submit to the Council the results of such study".

A note from the competent services of the Secretariat will be communicated to the Health Committee during its next session.

I have further the honour to inform you that the sixty-first session of the Council will probably end on or about October 4th, 1930.

(Signed) J. AVENOL.

C.538.1930.III.

B. TEXT OF THE PROPOSAL BY THE FRENCH GOVERNMENT.

I. LETTER TO THE SECRETARY-GENERAL.

Paris, September 7th, 1930.

For some years past, the Health Organisation of the League of Nations has rendered valuable assistance to the health services of numerous countries, by means of individual missions, collective study tours and international health courses.

The entirely conclusive results of the experience thus acquired have revealed the utility of establishing close contact between the different nations in matters of hygiene, thus ensuring a constant interchange of ideas, methods and personnel, as well as facilitating the training of the senior health staff in each country by providing them with opportunities of keeping readily and promptly abreast of the progress achieved abroad.

It is with this intention, and within the scope indicated in the memorandum attached to the present letter, that the French Government was led to contemplate the establishment in Paris of an International Centre for Advanced Health Studies, under the auspices of the League of Nations.

Should the Council of the League of Nations share these views, the Government of the Republic will be glad to take up with the competent organs of the League the realisation of this proposal.

(Signed) A. BRIAND.

2. MEMORANDUM OF THE FRENCH GOVERNMENT.

[Translation.]

When the Health Organisation of the League of Nations was requested by a certain number of States to afford its technical assistance with a view to raising the standard of their public health services, one of the chief problems which it had to face was that of the training of health personnel.

Experience has shown that in each country there must be, amongst those health officials who carry out the ordinary administrative work, senior officers entrusted with keeping abreast of the progress achieved abroad. The various countries, even those most advanced in the medical field, are at present at very different stages of evolution in regard to certain aspects of public health work, and it is often difficult in certain countries to give senior officials adequate training. The necessity has thus arisen for supplementing the national health training suitable to a given country by an international training designed to place readily and promptly at the disposal of all the experience acquired by individual countries, as well as the latest contributions of science.

It is in order to provide this international training that for several years past the Health Committee of the League of Nations has been organising collective study tours, individual missions, interchanges of personnel between the health administrations, as well as courses and practical field work.

The direct contacts thus obtained between the senior medical and administrative authorities of the different nations have proved of the greatest value. In the first place, there have been the immediate technical results; the participants have been enabled to acquire professional knowledge which it would have been difficult for them to obtain otherwise. They have conducted to a valuable interchange of ideas and methods by allowing of the comparison of conflicting conceptions. Finally, they have brought the administrations of the different countries more closely together, creating an atmosphere of mutual confidence and developing habits of co-operation, and thereby establishing durable relationships.

As it became more firmly established, so this co-operation proved of ever-increasing value, and those concerned requested that the health courses should be continued, should be more numerous, and, finally, should be given permanency.

There thus took shape, in the public health movement, amongst both administrations and eminent authorities, the idea of the establishment of an International Centre for Advanced Health Studies.

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There is already in existence a certain number of national schools of hygiene which have acquired justly a high reputation. But they are of interest and service mainly to students of the country concerned. If they attract foreign students, it is only in small numbers and according to the moderate extent to which they offer the nucleus of an international education. An international centre for advanced studies would not overlap with the work of these national schools, but would supplement it on the international plane. A vast field of action opens before the international centre, which surpasses that of national public health. Apart from health officials proper, it will attract biologists, administrators, medical and vital statisticians, and sociologists, who will all find there subject-matter which it would be tedious and difficult to collect elsewhere.

The teaching would be given with the constant endeavour to contrast the ideas, methods and institutions of the different countries. A prominent place would be reserved for "comparative hygiene", a vast subject in which a special problem should be selected each year. Recent advances in science would be described in turn by the most qualified authorities of the various countries.

Nor would this be a centre of purely theoretical instruction. Apart from the health courses, which are always useful for expounding particular subjects, the greatest attention would be given, not only to work at the technical lectures ("seminars"), which substitute for theoretical lessons active co-operation between teachers and students, but also to collective or individual study tours and local investigations. Special regions would be chosen in different countries as areas of practical training.

\* \* \*

This brief survey of a very extensive programme is only intended to demonstrate that an international education in hygiene would not overlap with the work of national instruction. Its initiation responds to a need which has been felt keenly for some time past by all concerned, and the successes achieved in this field by the Health Organisation of the League of Nations have only served to emphasise this need. The entirely convincing results of this conclusive, if only partial, experiment demonstrated the necessity for extending its scope and making it systematic—that is, by establishing, in the place of passing contacts and sporadic conferences permanent relations, and by introducing an organised and generalised plan of training which would meet the pressing needs of the modern health administration, resulting from the complexity of the problems with which it is faced, the rapid strides of scientific progress, and the difficulties encountered in training its senior personnel.

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It is in order to meet these needs that the French Government was led to contemplate the creation in Paris, under the auspices of the League of Nations, of an International Centre for Advanced Health Studies. The nature and spirit of the instruction and the international composition of the teaching staff, as well as of the governing body, would clearly emphasise the character of the new institution. It would represent, within the limited sphere of hygiene, a specific application of the general idea of international co-operation which is the true object of the League of Nations.

It will be obvious that the approval of the French Parliament would be required for the establishment of the centre, but the French Government has no doubt of securing this approval, as soon as it could lay before Parliament a project resulting from studies undertaken with the League's Health Organisation. It is for this study that the French Government is seeking the authority of the Council, for whose examination and approval the results of any such study would duly be submitted.

C.H. 921(1).

C. REPORT BY PROFESSOR LÉON BERNARD,  
CHAIRMAN OF THE SUB-COMMITTEE APPOINTED TO EXAMINE THE  
FRENCH GOVERNMENT'S PROPOSAL.

Geneva, September 29th, 1930.

A proposal by the French Government, accepted in principle by the Council of the League of Nations, with a view to the creation of an International Centre of Advanced Health Studies, at Paris, has been referred to the Health Committee.

The French Government's letter and memorandum were communicated to the Health Committee, together with the report to the Council by the delegate of the Irish Free State, and the Council's resolution worded as follows :

" The Council accepts with real appreciation the French Government's generous proposal to create an International School for Advanced Health Studies in Paris, under the auspices of the League of Nations ;

" And, in accordance with the French Government's suggestion, invites the League's Health Organisation and the competent services of the Secretariat :

" To undertake a technical study of the project, on the basis of detailed information to be supplied by the French Government and of the observations contained in the report presented by the Rapporteur ;

" And to submit to the Council the results of such study."

In pursuance of the Council's resolution, the Health Section and the Legal Section of the Secretariat have drawn up a draft organic statute for the Health Committee to submit to the Council after examination.

Your Sub-Committee has proceeded to a preliminary study of this draft statute and submits it to you with the few amendments which it has thought advisable.

As French member of the Health Committee, I am glad to note that the French Government's proposal is in the fullest agreement with the objects and general methods of our system of instruction and interchanges.

The Health Committee will no doubt agree with your Sub-Committee that this creation of an International School of Advanced Health Studies will admirably supplement the meetings of the directors and teachers of national health schools, whose fruitful development I have outlined in another report.

You have before you the French Government's letter and memorandum and the draft organic statute of the proposed institution, as well as the draft letter of the French Government containing the undertakings of this Government.

These documents, in the first place, give an idea of the manner in which the French Government conceives of this School ; and, in the second place, shows how its operation is provided for by a Statute based on those already in force in other international institutions of the same character created under the auspices of the League.

On the basis of these documents, we propose to study first the technical organisation and then the administrative and financial organisation of the school.

TECHNICAL ORGANISATION.

Within the general framework of the ideas expressed in the French memorandum and in Article 2 of the draft statute, the Health Committee can easily determine more precisely the general plan of the organisation, instruction and proceedings of the school.

Accordingly, the Sub-Committee submits to you the following plan, which at present can naturally be only of an extremely general character.

It is logical to suppose that the plan which is finally adopted will also be open to subsequent improvements dictated by the experience acquired.

I. *Teaching Staff.*

Instruction will be given in French.

The School will not offer any permanent chairs.

The teaching staff will each year consist of a certain number of French and foreign professors, the latter being chosen among those able to give their instruction in French.

The professors will be chosen among the persons best qualified to deal with questions of public health and the sciences relative to health, belonging to countries which have acquired particular experience in hygiene and allied sciences, so as to represent the progress of health knowledge throughout the world.

2. *Students.*

The students will be derived from various sources : doctors and scientists specialising in a branch of hygiene, public health officials, administrators, future directors of national services or national schools of health.

The students, whether French or foreigners, may receive scholarships granted by the League of Nations, Governments or various official or private institutions.



### 3. *General Programme of Instruction.*

The School will give theoretical instruction and practical instruction.

The theoretical instruction will consist not only of courses or lectures, but to a large extent of "technical conferences" or "seminars".

Practical instruction will consist in study tours and technical investigations on the spot, whether collective or individual, in France and abroad.

In order to provide the School with the practical work best adapted to the programme of instruction, demonstration grounds will be chosen in France and abroad, either in the countries which are most advanced from the public health point of view or in the countries which need new institutions.

The programme of instruction will include, in addition to a general basic programme, advanced technical studies on particular subjects.

The theoretical programme will be divided into three principal branches :

A. Comparative general hygiene. This includes instruction in the different branches of hygiene conceived, not in an elementary and descriptive manner, but on the higher plane of general principles, with a comparison of their different applications according to the countries. This will constitute the general basic programme ;

B. Outline of the fresh knowledge acquired in the sphere of health and of the sciences relating to health ;

C. Organs and methods of international health co-operation.

We shall now give a few more precise indications regarding each of these points :

#### A. *Comparative General Hygiene.*

Comparative general hygiene, taught as we have just said, with the constant preoccupation of comparing the ideas, methods and institutions of the different countries, constitutes a complete cycle. The principal chapters would be more or less as follows :

General organisation : economic, political and social bases of hygiene ;

Public health in its different forms ;

Social hygiene ;

Rural hygiene ;

Hygiene of labour and industrial hygiene ;

Medical assistance and hospitals ;

Housing ; town planning ;

Hygiene of ports and navigation ; quarantine ;

Sanitary technique, sanitary engineering ;

Laboratories and their relation with public health ;

Health education of the people.

#### B. *Fresh Knowledge acquired in the Sphere of Health and of the Sciences relating to Health.*

Through this extremely important part of its programme, the School will be a permanent centre of improvement and an instrument of progress for senior health officers.

In addition to physics, chemistry and biology, among the sciences relating to health may be mentioned sociology and ethnographical geography in so far as they come within the scope of public health, and legislation and administration in so far as they contribute to what may be called national and international health law.

There are a certain number of questions closely affecting the physical and moral life of individuals and nations with which the School must deal in a social and, at the same time, scientific spirit, such as movements of population, races, sexual life, conditions of labour, all of which are questions of great public interest.

Great prominence will be given to new questions or questions of immediate interest, such as :

General epidemiology ;

Statistics ;

Biological sciences :

Physiology ;

Bacteriology ;

Immunology and serology ;

Parasitology ;

Social aspect of diseases ;

Tropical diseases ;

Physiology and hygiene of physical education ;

Physiology and hygiene of nutrition.

As an example of new questions to be dealt with in the lectures and seminars at the present time we may mention :

New methods of immunisation ;

Sleeping-sickness ;

The progress of research work on yellow fever ;

Chemicotherapy of leprosy ;

The movements of population in countries of colonisation and immigration ;

Hygiene of marriage and eugenics.

### C. *International Health Co-operation.*

The progress of public health throughout the world ;  
International health conferences and conventions ;  
The health work of the League of Nations ;  
The Office international d'Hygiène publique ;  
The work of international private associations in matters of hygiene.

The practical part will include work in health services or institutions, and visits, in accordance with the methods adopted for interchanges.

#### 4. *Number and Duration of the Courses.*

Two kinds of courses may be given at the School—a general course consisting principally of the basic programme, and special courses organised for particular requirements. The general course will last six months and will be divided into two parts : the theoretical part, including lessons, lectures, technical discussions (seminars), will last about three months ; the part including field work, practical work in health services or institutions and study tours will occupy the remainder of the time.

### ADMINISTRATIVE AND FINANCIAL ORGANISATION.

The International School of Advanced Health Studies, as conceived by the French Government in its proposal and memorandum, is an instrument of work and instruction placed at the disposal of the League of Nations without the latter assuming any legal responsibility ; but it is necessary that the League of Nations, under whose auspices the School will work, should exercise supervision over its operation. An endeavour had therefore to be made to find the formula of a link sufficiently elastic to preserve both elements in the new institution.

This formula is represented by the draft organic statute submitted to you. The statute, in fact, gives the Health Committee all guarantees in this respect, as the Governing Body of the School will consist, in fact, of the members of the Committee. The supervision of the administrative and financial management, the working and technical efficiency of the School, will therefore be in the hands of the Health Committee through the operation of the legal formula imposed by the traditions of the League of Nations.

The French Government undertakes all the financial obligations involved in the installation, maintenance and working of the School ; the League of Nations is free from any obligation in this respect. Nevertheless, by the normal awarding of fellowships in accordance with the usual practice of its Health Organisation, it may contribute in a certain extent to the resources of the School.

The students will have to pay tuition fees, which may be covered by scholarships. Finally, there is reason to hope that the services which will be rendered by the School to the League of Nations will attract gifts and subsidies which will increase its resources.

These are the main principles which we are able to recommend for the working of the International School of Advanced Health Studies. Obviously, the first duty of the Governing Body will be to draw up internal regulations, in order to determine details which it would be quite premature to consider at the present time. In the first place, the duties of the Director and of the Committee of Directors will have to be determined as regards their relations to each other and to the Governing Body. The legitimate prerogatives of the Health Committee, in drawing up these rules, will not be neglected, since, as already stated, its members constitute the Governing Body. It will be enabled, by clauses in the internal regulations, to determine the programmes and the selection of the professors and students. In short, the Health Committee will have the supervision over the general working of the School in its own hands, and it cannot but be grateful for the generosity with which the French Government has given it this authority.

The French Government, however, reserves the right to approve the choice of the Director, who must be of French nationality ; to appoint a member of the Managing Committee, which will, moreover, be presided over by a French member of the Governing Body ; to receive an annual technical, administrative and financial report on the work of the School, which report will, in accordance with the regulations, no doubt be communicated to Parliament, in order to justify the grant it has generously voted.

Finally, three observations occur to us.

In the first place, it is necessary to emphasise the international character, in the full meaning of the term, which the School will enjoy ; the composition of its Governing Body and of its professorial staff, the method of selecting pupils and its system of instruction all bear witness to this. This institution, created under the auspices of the League of Nations, will be animated by a spirit strictly in harmony with that of the League.

Secondly, it should be noted that the plan described in this report can only be carried out when the French Government has obtained the approval of Parliament.

But, without awaiting this ratification, which we all desire, you will no doubt agree with your Sub-Committee that the Health Committee, in transmitting to the Council the report requested, can only associate itself with the expressions of gratitude which have already been conveyed by the Council to the French Government, for placing at the disposal of our technical organisation an independent instrument for carrying on our work and extending our activity, the value of which will, we hope, be proved in the future.

Appendix.

LETTER FROM THE FRENCH GOVERNMENT TO THE PRESIDENT OF THE COUNCIL OF THE  
LEAGUE OF NATIONS.

The Council of the League of Nations having accepted in principle, on September 24th, 1930, the proposal of the French Government to create an International School of Advanced Health Studies, I have the honour to confirm that the Government of the Republic undertakes to establish and maintain, under the conditions mentioned below, an International School of Advanced Health Studies to be placed at the disposal of the League of Nations. The seat of this centre shall be at Paris.

1. The object of the School shall be to supplement the system of interchange and courses of study of the League of Nations in the domain of health by means of a permanent teaching institution under the auspices of the League's Health Organisation ; to extend the instruction of national schools of hygiene by international post-graduate training, both theoretical and practical ; and, in addition, by means of instruction destined to prepare directors of national schools or of national health services of countries which may desire to make use of it ; to provide facilities for study and post-graduate training for hygienists, administrators and sanitary personnel.

2. The International School of Advanced Health Studies shall be administered by a Governing Body composed of active members of the Health Committee of the League of Nations sitting in a private capacity.

Members of the Governing Body shall no longer act in that capacity when they cease to be members of the Health Committee. The President of the Health Committee shall be *ex officio* President of the Governing Body, acting in a private capacity.

3. The Government of the French Republic shall take the necessary measures to secure recognition of the International School of Advanced Health Studies as an autonomous foundation possessing legal personality.

4. The cost of installing the International School of Advanced Health Studies shall be borne by the French Government, which shall provide, in particular, the necessary buildings to enable the School to function.

The expenses entailed in the installing, working and maintenance of the School of Advanced Health Studies shall be met out of an inclusive annual subsidy which the French Government, subject to Parliamentary approval, proposes to fix at a million French francs.

The School shall be entitled, by virtue of the decisions taken by the Governing Body, to accept donations, legacies and subventions from Governments, institutions or private persons.

5. The International School of Advanced Health Studies shall be responsible for its own working.

Neither the League of Nations nor the French State shall incur any responsibility, civil, financial or otherwise, in respect of the working or administration of the International School of Advanced Health Studies. As far as the League of Nations is concerned, it does not incur any financial responsibility on account of the International School of Advanced Health Studies.

6. The Government of the French Republic reserves the right to propose for acceptance by the Council of the League of Nations, and declares itself prepared to consider in case of need at the request of the Council, any modifications in the present conditions which experience may show to be desirable.

7. The Government of the French Republic gives the present undertaking for a term of seven years.

It shall remain in force for further terms of seven years, unless either the Government of the French Republic or the League of Nations has notified its intention of making it inoperative at least two years before the expiration of any such term.

8. The present undertaking is given by the Government of the French Republic subject to the approval of the legislature, and shall not become final until such approval has been notified to the Secretary-General of the League of Nations.

[Signature.]

ORGANIC STATUTE OF THE INTERNATIONAL SCHOOL OF ADVANCED HEALTH STUDIES.

Article 1.

An International School of Advanced Health Studies, to be placed at the disposal of the League of Nations, shall be established at Paris by the Government of the French Republic, in accordance with the terms of its letter to the President of the Council of the League of Nations, dated...

Article 2.

The object of the School shall be to supplement the system of interchanges and courses of study of the League of Nations in the domain of health by a permanent teaching institution under the auspices of its Health Organisation ; to extend the instruction of national schools of hygiene by international post-graduate training, both theoretical and practical ; and, in

addition, by means of instruction destined to prepare directors of national schools or of national health services of countries which may desire to make use of it, to provide facilities for study and post-graduate training for hygienists, administrators and sanitary personnel.

*Article 3.*

The organs of the International School of Advanced Health Studies shall be :

- (1) The Governing Body ;
- (2) The Committee of Directors ;
- (3) The Director.

*Article 4.*

The Governing Body shall be composed of active members of the Health Committee of the League of Nations, acting in a private capacity. Members of the Governing Body shall no longer act in that capacity when they cease to be members of the Health Committee. The President of the Health Committee shall be *ex-officio* President of the Governing Body, acting in a private capacity.

*Article 5.*

The Committee of Directors shall comprise seven members, acting in their personal capacity. Six of these members shall be nominated by the Governing Body and one by the French Government. A French member of the Governing Body shall preside over the Committee of Directors.

The functions of the Committee of Directors, as well as the term of office of its members, shall be determined by the Governing Body, in accordance with the terms of the present Statute.

*Article 6.*

The Director of the International School of Advanced Health Studies shall be present in an advisory capacity at the meetings of the Governing Body and of the Committee of Directors.

*Article 7.*

The Medical Director of the Health Section of the Secretariat of the League of Nations shall be *ex officio* Secretary of the Governing Body and of the Committee of Directors.

*Article 8.*

The work of the School shall be carried out by a salaried staff comprising :

A Director of French nationality, appointed by the Governing Body with the approval of the French Government, and whose duties shall be defined by the Governing Body ; higher officials appointed by the Committee of Directors ; minor officials and employees by the Director.

The Governing Body shall draw up a Statute regulating the status of the personnel.

*Article 9.*

In legal proceedings and in all matters of civil law the International School of Advanced Health Studies shall be represented by the President, or, should the latter be prevented from acting, by the Vice-President of the Governing Body.

This body may, however, delegate to the Director the whole or part of the powers appertaining to its President, under the terms of the present article.

*Article 10.*

The Governing Body shall, on the proposal of the Committee of Directors, draw up an annual budget of the School, within the limits of the subsidy granted by the French Government with the possible addition of funds from other sources, and shall approve the statement of expenditure.

*Article 11.*

In accordance with the terms of the present Statute, all provisions governing the administration and work of the School shall be determined by the Governing Body by internal regulations, which shall define, in particular, the powers of the Committee of Directors.

The School shall enjoy diplomatic privileges and immunities.

The Governing Body shall determine, by a decision approved by the French Government, the classes of the personnel of the School who are to enjoy such diplomatic privileges and immunities.

*Article 12.*

The regulations relating to the financial administration of the School shall be prescribed by the Governing Body, on the proposal of the Committee of Directors.

The Governing Body shall prescribe financial regulations regarding the administration of the finance of the School ; in particular, the budget, the appropriation and use of the funds, investment of capital, accountancy and supervision.

*Article 13.*

A report on the work of the School shall be forwarded each year by the Governing Body to the Council of the League of Nations and to the Government of the French Republic. It shall be communicated to all Members of the League of Nations.

[Signature.]

ANNEX 5.

C.H. 917.

PROPOSAL BY THE SPANISH GOVERNMENT THAT  
A EUROPEAN CONFERENCE ON RURAL HYGIENE BE CONVENED.

A. LETTER OF THE SECRETARY-GENERAL FORWARDING TO THE HEALTH  
COMMITTEE THE RESOLUTION ADOPTED BY THE COUNCIL  
ON SEPTEMBER 24th, 1930.

Geneva, September 25th, 1930.

I have the honour to inform you that the Council of the League of Nations, at its meeting on September 24th, 1930, adopted the attached resolution with regard to the proposal of the Spanish Government that a European Conference on Rural Hygiene be convened.

In accepting the proposal of the Spanish Government, the Council "referred it to the Health Committee for technical study and report" before fixing a date for the proposed Conference.

I have the honour to inform you that the sixty-first Session of the Council will probably end on or about October 4th next.

(Signed) AVENOL.

C.543.1930.III.

B. TEXT OF THE PROPOSAL BY THE SPANISH GOVERNMENT.

Geneva, September 16th, 1930.

[Translation.]

His Majesty's Government has become convinced of the benefits which would result at the present time from a technical international study of problems of hygiene in rural districts.

Every State will appreciate the advantages of a general study of rural hygiene, considered as one of the most important factors in the reconstruction of agricultural areas in Europe, and His Majesty's Government believes that the League of Nations is best qualified to carry through this important undertaking by convening at Geneva for this purpose a conference of representatives of European States.

The previous work of the League's Health Organisation bearing directly or indirectly on agricultural questions, as well as the effective assistance afforded by that Organisation to the Health Conference of 1922, are a sure guarantee of the forethought and care which it would give to the preparation of the International Conference in order to ensure valuable results.

In view of the universally recognised competence of the International Institute of Agriculture in problems relating to agriculture, it should obviously be associated with the work of the Conference, to which its long experience and the important information in its possession may be of great assistance.

His Majesty's Government therefore believes it would be extremely useful for the Health Organisation to secure the co-operation of the International Institute of Agriculture at Rome.

I should be grateful if you would be good enough to take the necessary steps to place this proposal of His Majesty's Government on the agenda of the sixty-first session of the Council of the League of Nations.

I shall hold myself at the disposal of the Council for any further information which may be required.

(Signed) QUINONES DE LEON.

C.H.926.

C. REPORT BY PROFESSOR PITTALUGA, CHAIRMAN OF THE SUB-COMMITTEE  
FOR THE STUDY OF THE PROPOSAL SUBMITTED  
BY THE SPANISH GOVERNMENT.

The Council adopted and transmitted to the Health Committee for examination the Spanish Government's proposal for the convening of a European Conference on Rural Hygiene. The Health Committee took note of the documents relating to the question, in particular the Secretary-General's letter of September 25th 1930, with its annexes, and also Memorandum C.H.912.

On the basis of these data, the Health Committee set up a special Committee, over which I have the honour to preside, to study the question and prepare a programme.

The Committee has examined this proposal with the greatest interest, and I now submit the conclusions which it proposes should be adopted.

\* \* \*

The Health Committee will be glad to note that the Spanish Government's proposal, which is the outcome of the meeting at Warsaw in 1922 and of the experience gained during the last few years, is in agreement with the principles by which part of the work of the Health Organisation has been governed. In particular, we would recall the collective tours organised in certain European countries with a view to the study and improvement of the conditions of rural life. In accordance with the report by the Irish representative, the Council acceded to the Spanish Government's proposal. It is acquainted with the work of the Health Organisation in this field and with the importance of the problem of rural hygiene which has been brought out as a result of our systematic and technical observations and by the demographic study of the various national public health centres. In agricultural countries in which medical assistance in rural districts has already been provided on a large scale—such as Spain, where there is approximately one doctor per thousand inhabitants—there are still serious defects and lacunæ in the organisation of rural hygiene. The difficulty of remedying this situation, notwithstanding the zeal and competence of the doctors, is obvious. It is necessary to have recourse to other means by completely changing the methods of constructing rural dwellings, introducing improved systems for the supply of drinking water, improving the land from the hydrographic and agricultural point of view by means of close and continuous co-operation between engineers and biologists, and by adapting medical assistance to rural needs, etc.

It is obviously impossible to enumerate in this report the various questions included in the vast problem of rural hygiene. It is our duty, however, in accordance with the instructions given us by the Council, to decide upon certain points which might be exhaustively dealt with at the Conference, the programme of which we have been requested to draw up.

The Committee is of opinion—and it hopes that the Health Committee will share this view—that this programme should be strictly limited, and that the questions on the agenda should be very clearly defined. In submitting its proposal, the Spanish Government expressed the desire that the Conference should reach practical conclusions and recommendations. If this result is to be obtained, several factors must be taken into account. In the first place, the problems to be discussed must be clearly stated and limited in number; secondly, ample information must be placed at the disposal of the Rapporteurs and members of the Conference; thirdly, the various delegates and members of the Conference must be technically competent. They must have a practical knowledge of the actual conditions of rural life in all its aspects in their respective countries and of the manner in which the various problems of rural hygiene have been solved both in their own country and elsewhere. Finally, the concrete questions on the agenda must be studied beforehand by the delegates and members of the future Conference on the basis of the information previously collected and the data which they may themselves be able to obtain in their own country.

Your Committee has considered these various points very carefully and has reached the following conclusions :

#### I. DATE OF THE CONFERENCE.

It is obvious that the possibility of securing the factors mentioned above will largely depend on the time available. The date of the Conference must not be too distant, otherwise a most favourable opportunity for dealing with a group of questions, in regard to which the Spanish Government and also the Governments of other European countries are very anxious to receive guidance and recommendations on the part of the Conference, will have slipped by.

After an exchange of views with the Medical Director, we propose that the Health Committee might suggest to the Council, in reply to the request formulated in the resolution of September 24th, the date of Thursday, April 23rd, 1931.

#### 2. PROGRAMME AND PROVISIONAL AGENDA OF THE CONFERENCE.

In accordance with the general principles set forth above, which express the views of your Committee and at the same time the desires of the Spanish Government, we think that the following three subjects might be inserted in the provisional agenda, of the Conference :

- (a) Guiding principles and suitable methods of ensuring effective medical assistance in rural districts ;
- (b) The most effective methods of organising health services in rural districts ;
- (c) The improvement of rural districts, the most effective and cheapest methods.

The Committee to prepare for the Conference, which is to be set up, will be entrusted with the duty of collecting, with the help of the Health Section, information and data which may assist the Conference to attain its object.

We would add that the three series of questions proposed should be considered from the point of view of the interests of rural hygiene.

It should also be pointed out that Group (b) should include the study of the best methods of *health propaganda* in rural districts ; similarly, Group (c) should include the question of the rural dwelling in all its aspects.

3. COMPOSITION OF THE GOVERNMENT DELEGATIONS TAKING PART IN THE CONFERENCE.

We do not think that the Health Committee will consider that, in examining the character of the delegations to the Conference, this Committee is exceeding its terms of reference. The report by the representative of Ireland, on the basis of which the Spanish Government's proposal has been accepted by the Council, emphasises in several passages (pages 2 and 3, document C.555.1930.III) that it is essential that *technical delegates* should be sent and that the Conference will be of a technical nature. We would ask the Health Committee to accept this Committee's suggestion and to point out to the Council the desirability of sanitary engineers, administrators, representatives of farmers' associations, representatives of social insurance associations, etc., being sent to the Conference in addition to hygienists.

\* \* \*

We do not think it is possible for the Health Committee to draw up a more detailed programme at the moment. We would suggest, however, that a preparatory committee should be set up as suggested in the report by the representative of Ireland. The Health Committee will be glad for a representative of the International Institute of Agriculture at Rome, which has for many years been collecting valuable information on questions relating to agriculture, to co-operate with that Committee. If necessary, the Committee might also obtain the assistance of the International Labour Office. The Health Section will doubtless place at the disposal of that Committee, whose members will be proposed to the Council by the Health Committee, all the information and preparatory documentation required by the Rapporteurs and by the Conference for its discussions.

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ANNEX 6.

C.H. 898.

LIAISON WITH THE INTERNATIONAL RED CROSS COMMITTEE  
AND THE LEAGUE OF RED CROSS SOCIETIES.

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EXCHANGE OF CORRESPONDENCE BETWEEN THE PRESIDENT OF THE HEALTH  
COMMITTEE AND THE VICE-PRESIDENTS OF THE LEAGUE OF RED CROSS  
SOCIETIES AND THE INTERNATIONAL RED CROSS COMMITTEE.

I. LETTER TO THE PRESIDENT OF THE HEALTH COMMITTEE FROM THE VICE-PRESIDENTS  
OF THE LEAGUE OF RED CROSS SOCIETIES AND OF THE INTERNATIONAL RED CROSS COMMITTEE.

Geneva, May 10th, 1930.

.....  
You will doubtless remember that, at the time of the constitution of the Health Committee of the League of Nations, a seat was reserved for a representative of the Red Cross. This measure was thought necessary in order to ensure continuous collaboration between the Committee and the International Red Cross, these two institutions being frequently called upon to work in neighbouring fields of action and sometimes to collaborate.

The Health Committee, at the time of its reorganisation, agreed to nominate as assessor a candidate proposed by the Red Cross, in order to ensure the contact essential between the two institutions.

As you know, the International Red Cross has entered a new stage since its unity was sanctioned at the Thirteenth International Red Cross Conference in 1928, and the question again arises of ensuring its collaboration with the Health Committee.

During recent years, several national Red Cross societies, in conformity with Article 25 of the Pact of the League of Nations and with the support of their respective Governments, have undertaken new activities in the field of health as auxiliaries of the official health services or have pursued activities which they had already commenced. The International Red Cross, and more particularly the Secretariat of the League of Red Cross Societies, have been entrusted with the task of co-ordinating and supporting this programme in times of peace. It is for this reason that, persuaded that you will recognise with us that this collaboration will serve in many cases to facilitate our work in common, we take the liberty of asking you what methods you would contemplate for effective liaison in the future between the two Institutions.

For the International Red Cross Committee :

For the League of Red Cross Societies :

(Signed) Dr. G. PATRY,  
Vice-President.

(Signed) Cl. DRAUDT,  
Vice-President.

2. LETTER FROM THE PRESIDENT OF THE HEALTH COMMITTEE TO THE VICE-PRESIDENTS OF THE LEAGUE OF RED CROSS SOCIETIES AND THE INTERNATIONAL RED CROSS COMMITTEE.

Geneva, May 30th, 1930.

.....

In reply to your letter of May 10th, in which you ask me what methods I contemplate for the effective liaison in the future between the International Red Cross and the Health Committee of the League of Nations, I hasten to assure you that I recognise, with you, that such collaboration would, in many cases, greatly facilitate our work in common.

As you perhaps know, the new Health Committee has just been constituted by the Council of the League of Nations at its session of May 15th, and its first session will take place on September 29th next. At this session, it will be for the Committee to consider new methods of collaboration with the organisations that you represent. For my part, I will propose to my colleagues that a representative of your organisations be invited, who will himself submit a report on your activities in the field of health as auxiliaries of official health services, as well as on all other activities as may seem to you to be of interest to the Health Committee and as would permit of fruitful collaboration. This report, distributed in advance to the members of the Committee, will serve as the basis of a discussion which I do not doubt will be of mutual interest.

(Signed) MADSEN,  
President of the Health Committee.

3. LETTER FROM THE VICE-PRESIDENT OF THE BOARD OF GOVERNORS OF THE LEAGUE OF RED CROSS SOCIETIES.

Paris, June 26th, 1930.

.....

I have the honour to acknowledge the receipt of your letter of May 30th, addressed to the Vice-Presidents of the League of Red Cross Societies and of the International Red Cross Committee, for, as already mentioned in our letter of May 10th, it is especially the secretariat of the League of Red Cross Societies that has been charged with the task of co-ordinating the programme of Red Cross Societies in times of peace.

I am therefore directed to thank you heartily, in the name of the two branches of the International Red Cross, for your proposals to authorise our representative to submit a report on our activities in the field of health. We hope that the sessions of the Committee, over which you preside with such fruitful results, will thus give us the opportunity to establish an uninterrupted liaison with the official work that we are most anxious to support to the full extent of our powers.

The proposals for which we are indebted to your kind initiative will, I understand, be discussed during the autumn session. I hope, therefore, that a favourable decision will be transmitted to us after that date.

(Signed) DRAUDT,  
Vice-President of the Board of  
Governors of the L.R.C.S.



ANNEX 7.

C.H. 899.

FOURTH (AND LAST) REPORT BY PROFESSOR N. H. SWELLENGREBEL  
ON THE MALARIA AMONG THE REFUGEES IN THE GOVERNMENT  
OF BURGAS (BULGARIA).

This, my last, visit to Bulgaria on behalf of the refugees was of particular interest, as its object was to study the new permanent organisation of the Department of Public Health, which replaces in the refugee villages the temporary rural medical assistance organised by the settlement committee.

I. RESULTS OBTAINED BY THE TEMPORARY MEDICAL SERVICE.

It will be remembered that this service was organised, after my first visit in April 1927, to protect the refugees by adequate treatment against the worst effects of malaria. The medical staff engaged for this purpose was sufficiently numerous to enable each malaria doctor to visit, at least once a week, each of the three to five villages under his care and to supervise and direct the quinine distribution by the village "kininar".

Besides this work, the malaria doctors were expected to study the breeding-places in and around the villages under their care, to treat them with oil or paris green, and to execute simple works of drainage and filling-in, wherever possible by means of local labour. In this, they were advised by, and sometimes received aid from, the anti-malaria squads of the Burgas Malaria Institute, who themselves undertook anti-larval operations on a larger scale round a few selected villages.

My advice to limit anti-larval work to these selected spots, but to carry it out thoroughly there, has not been followed. As a consequence, much time and money has been wasted, except for the selected villages, where trained squads were at work in a field, where the breeding area was reduced and rendered more accessible by extensive drainage work.

My advice to have this special malaria service converted into one of generalised rural medical assistance was pronounced impossible after a short trial in 1928.

My proposal to have the service founded on a more solid permanent basis, by following the example of the Greek refugees, with their rural doctor, compounder and dispensary for every 700 to 800 inhabitants, was dismissed without serious consideration.

As will be seen, the new rural health organisation has satisfied most of these wishes.

The results were satisfactory, in so far as the incidence of malaria decreased considerably since 1927. This is shown in the accompanying graphs (see page 112) prepared by Dr. Drensky of the area round Burgas, and in the Graph No. 1 (Appendix) relating to the sixteen villages I have always taken as representing the average conditions in the whole area.

Graph No. 1 shows a gradual decline, followed by an equally gradual increase, of the malaria incidence, a rise and fall one may expect wherever malarial incidence is fairly accurately measured over a number of years. Moreover, the maps show that the decrease of malaria was a general one<sup>1</sup>, whereas the degree of perfection, with which anti-malarial measures were carried out varied a good deal from one group of villages to another. Consequently, neither maps nor graphs suggest that the decline of malaria has been due to any other factors than those, causing the well-known periodicity in the incidence of this disease.

A closer scrutiny, however, of smaller groups of villages, and their spleen-rates among children, permit a somewhat more far-reaching conclusion. As a rule, the spleen-rate is found to be higher in May and June, before the advent of the malaria season, than in September and October, at the end of that season. This year, no spleen census was taken in May, so that I had to take one myself in August. Taking it for granted that the spleen-rate in August is about midway between that in spring and autumn, the spleen-rate in the villages, where

<sup>1</sup> Except in the far south, where information is deficient owing to long distances without sufficient means of transport.

no really perfected measures have been taken, is 67, 67, 70, 57 and 48 per cent, in the years 1926-1930 (Graph No. 2, I) to the north of Burgas; and 72, 57, 56, 41, 55 per cent to the south (Graph No. 2, IV). In those where anti-larval measures have been carried out with particular care, these rates are 68, 72, 54, 46, 28 per cent (Graph No. 2, II); and in those where prolonged quinine cures have been perfected they are 71, 78, 27, 14, 23 per cent (Graph No. 2, III) <sup>1</sup>.

I therefore conclude that a general decline of malarial incidence has occurred in the Burgas area, but that this change has hardly affected the inherent malariousness of the country. It is uncertain whether this superficial (and evidently non-permanent, see Graph No. 1) improvement is due to better medical assistance in the villages. A more marked decrease in malarial incidence, likewise affecting the spleen-rate, has been observed in four villages where drainage works have facilitated the carrying out of effective anti-larval operations and in three others where all malaria patients have been carefully subjected to systematic and long-continued cures.

## II. THE NEW ORGANISATION OF RURAL MEDICAL ASSISTANCE.

### I. GENERAL DESCRIPTION AS FAR AS THE BURGAS AREA IS CONCERNED.

Among other matters, the new Public Health Law provides for rural medical assistance in the form of medical officers (communal doctors) each in charge of three to five villages (health commune). They live in one of them, where they keep their stock of medicines and their dispensary. The other (outlying) villages are visited on fixed days once a week. Each village about to be visited sends some means of transport to fetch the communal doctor and to take him back after his visit.

When in his own village, the communal doctor attends to the patients visiting his dispensary in the morning. If they can afford it, they are charged a small sum for medical attendance and medicines, to the profit of the "health fund" of the commune. In the afternoon the doctor has to discharge his office duties and those relating to sanitation and social hygiene (see below). After this, he is free to attend to his private practice.

When visiting the outlying villages, he spends a couple of hours in attending to any patients who may happen to be brought to his notice and in discharging a number of duties regarding sanitation and social hygiene, such as the inspection of wells, latrines, housing conditions. He will have to conduct the fight against venereal diseases and tuberculosis, when this is organised in rural areas, and to perform vaccinations whenever occasion demands.

Malaria still holds an isolated position among the various diseases the communal doctor has to deal with. The old system—no quinine unless malaria parasites have been found—still holds good; moreover, quinine treatment of splenic enlargement without parasites is no longer tolerated. The quinine is dispensed by the village "kininar", and the communal doctor has only to supervise this work and to decide whether a new patient can be admitted to receive provisional quinine treatment pending the result of blood examination. In all matters relating to malaria, the communal doctor has to take the orders of the malaria inspector (an officer of the malaria directorate) and not of the departmental health officer, who is his superior in all other respects.

### 2. ADVANTAGES OF THE NEW SYSTEM.

The preceding description, although far from complete, is sufficient for a study of the question whether the communal doctors are as able as their predecessors, the malaria doctors, to protect the refugees in the Burgas area against malaria.

When the last of the malaria doctors has been replaced by communal doctors, there will be as many of the latter as there were of the former, discharging their duty in areas of about the same size and number as before. In fact, there will be more of them, as there exist several groups of villages now served by communal doctors and situated between the former malaria "rayons", but where no malaria doctor existed before.

Moreover, the new organisation serves the whole of Bulgaria, including several highly malarious districts, where refugees, as yet unprotected against malaria, are numerous.

Finally, there will no longer exist the anomaly of an organisation for medical assistance solely directed against malaria in districts practically devoid of medical assistance of any kind.

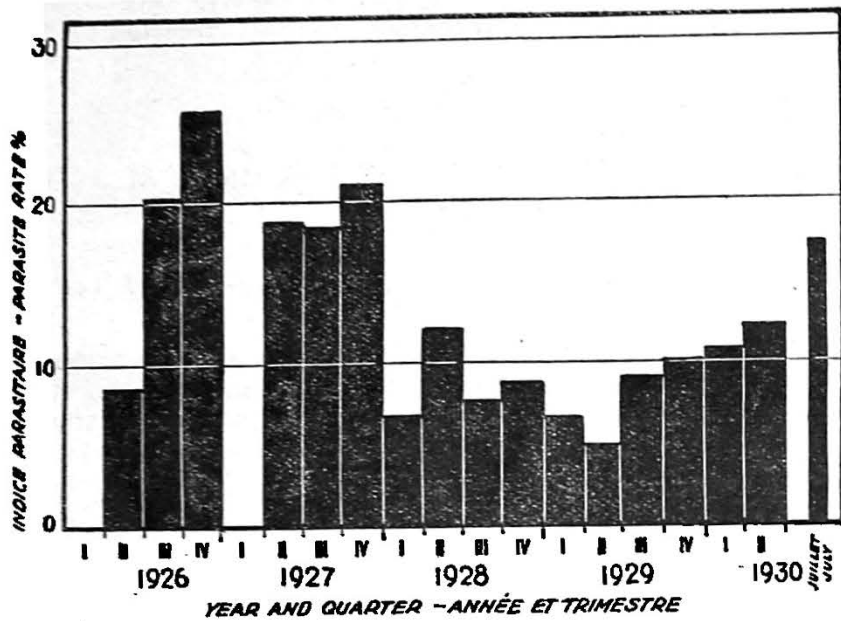
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<sup>1</sup> Similar results are reached by comparing the parasite-rates in the same groups of villages, although those with anti-larval measures do not compare so favourably as in the first instance (Graph No. 3).

I may add that, in August 1930, I found an average of 5.2 anopheles in every room or stable in the villages to the south of Burgas, and 5.8 in the northern ones, whereas the figure was only 0.6 in the villages with carefully conducted anti-larval measures.

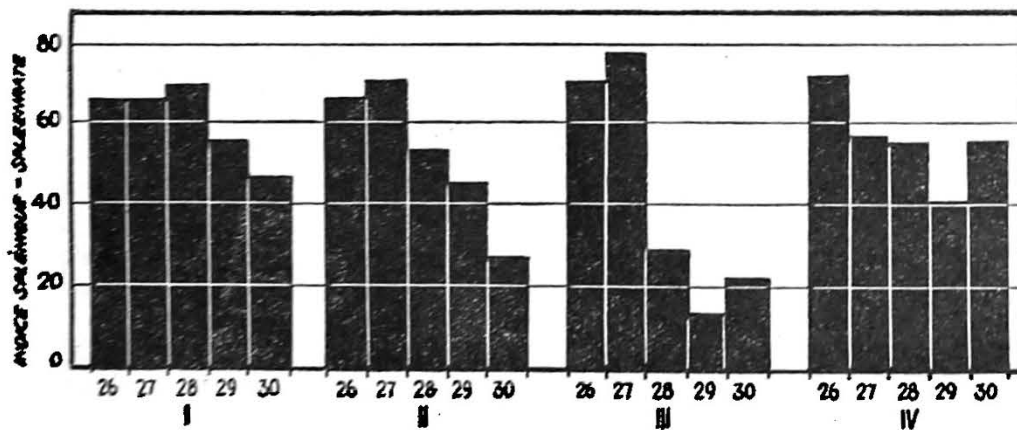
Appendix.

GRAPH NO. 1.



Graph No. 1 showing the quarterly parasite rate among part of the population in 16 villages of the Burgas area, 8 to the north and 8 to the south.

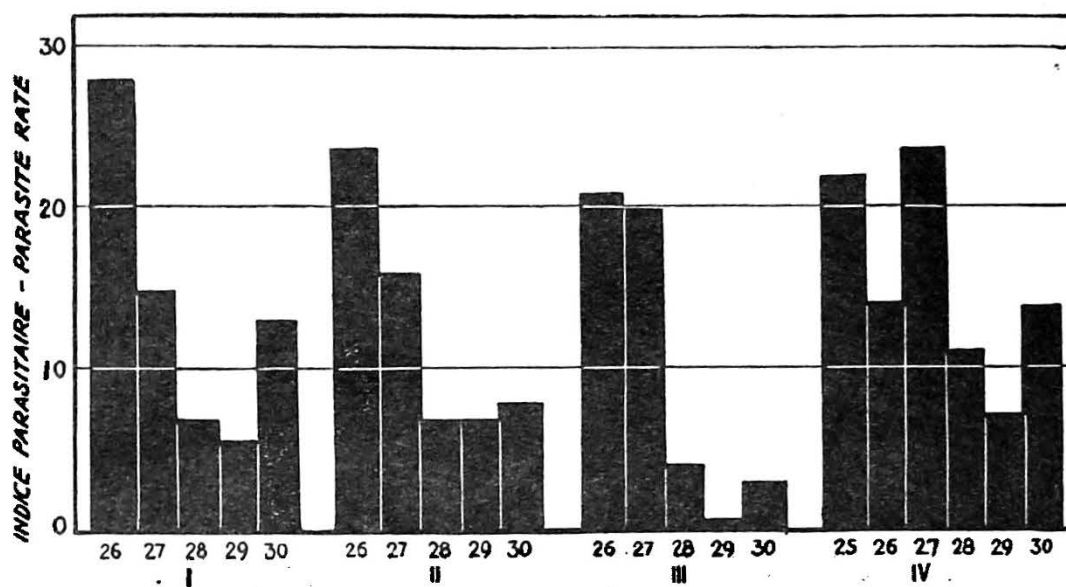
GRAPH NO. 2.



Graph No. 2 showing the average spleen rate (computed on the basis of the spring and autumn spleen rate in 1926-1929 and the August spleen rate in 1930) in:

- I. Villages north of Burgas, without especially perfected measures.
- II. Villages north of Burgas, with specially perfected antilarval measures.
- III. Villages north of Burgas, with specially perfected quinine treatment.
- IV. Villages south of Burgas, without especially perfected measures.

GRAPH NO. 3.



Graph No. 3 showing the average annual parasite rate (computed on the monthly returns) in 1926-1930 in :

- I. Villages north of Burgas, without especially perfected measures.
- II. Villages north of Burgas, with specially perfected antilarval measures.
- III. Villages north of Burgas, with specially perfected quinine treatment.
- IV. Villages south of Burgas, without especially perfected measures.

So far as these considerations go, the new system will be a distinct improvement on the old one, quite apart from the fact that it is permanent, whereas the old one was never expected to last over three years.

It is argued that the communal doctors will never be able to discharge the duties of their predecessors. On my visits to a number of the new officials, I convinced myself that this is true as far as anti-larval measures and intensive quininisation are concerned—the two measures which probably caused the reduction in the spleen-rate of the villages where they had been applied with more than usual care. If this care had been applied to all the villages, the old organisation would, indeed, have been far superior to the new one. But in the numerous other villages where similar measures had been adopted, the result was by no means the same, because the conditions were less favourable or the doctors less diligent. At any rate, the indiscriminate effort to apply to numerous other villages the measures which had proved successful in a few selected ones has led to much waste of time and material, and I do not consider it as a disadvantage of the new system that it has put a stop to this.

### 3. DIFFICULTIES IN THE NEW SYSTEM.

There is more serious ground for criticising the way the new system is carried into execution.

#### (a) *The Communal Doctor's Salary.*

He is supposed to be paid by the health commune. But he is not, or, at least, not regularly. I visited nine of them<sup>1</sup> who had been appointed between March and May 1st of this year. Only one had been regularly paid, three had received one-quarter to two-fifths of their salary;<sup>2</sup> the others had received nothing. One of them was told by the village authorities to go and earn his living by private practice; that is what the "feldshers" always did; they never worried the municipal authorities for money. Another was allowed to appropriate the revenue derived from the dispensary (contributions of visitors not belonging to the officially registered paupers) which brought him in about two-fifths of his pay.

#### (b) *Visits to Outlying Villages.*

Out of the twenty-three outlying villages under the care of the nine communal doctors I met, five were visited according to regulation (once a week); four had been till June 15th, when the doctor gave it up as a bad job; eight were visited twice; five once a month, and one never.

The result of this failure to comply with regulations was that none of the villages (except one) were inclined seriously to consider the communal doctor's legal demand for some means of transport to the village and back.

The village authorities took it as a huge joke, and simply laughed it to scorn when they found out that it was meant in good earnest. They would do no such thing. Had anyone ever heard of a "feldsher" making such preposterous claims? They paid for their own transports and made the patients pay for their attendance on the sound principle of no pay no doctor. Why should not the new doctors do the same?

So the latter had the choice of either walking or paying for their own conveyance. As they can hardly be expected to do so out of the pittance they are supposed to receive, it is a wonder they went at all, which they would certainly not have done without the allurements of private practice.

#### (c) *Medicines for Outlying Villages.*

The lack of means of transport has as a further consequence that the communal doctor, when he visits for once an outlying village, does not care to burden himself by taking medicines with him. When he attends to patients on his visits, he prescribes for them; but it is the patient's own concern to get the medicine as best he can.

Of course, this does not apply to quinine (see above), but it is obvious that the regular quinine treatment is much hampered by the doctor's visits occurring at such long intervals, unless the "kininar" takes it upon himself to admit new patients without the doctor's cognisance, which he is not allowed to do.

<sup>1</sup> In the whole Burgas area there are fifteen rural communal doctors in forty-three villages, besides eight malaria doctors of the old organisation (in twenty-eight villages) who will be discharged by December 1st, 1930.

<sup>2</sup> This salary is 4,500 to 5,000 leva a month and a room to live in free of rent.

It is no wonder that I nowhere heard complaints of shortage of quinine, although the quantity available was reduced from over 500 kilogrammes in 1929 to half that amount in 1930. Nor is it astonishing that I found children in many villages evidently in need of a thorough quinine treatment, but not entitled to it either because they had not been seen by the communal doctor or because their blood showed no parasites on one single examination.

(d) *Finding out Patients in Outlying Villages.*

When the communal doctor visits an outlying village, most of the inhabitants are not aware of his presence or, if they are, they do not trouble to meet him, being unaccustomed to the notion that medical assistance is for everyone, not only for the rich. Sometimes the doctor applies for information to the mayor or the schoolmaster, but there exist no rules prescribing the finding out of the patients before the doctor's visit, acquainting him with it and seeing that they keep the appointment.

The doctor has no time to find out for himself the whereabouts of the patients during a visit which seldom lasts over two hours, and the greater part of which is occupied in looking over the "kininars" lists, seeing that nobody gets quinine who is not entitled to it by a positive blood-slide, and going through his round of sanitary inspection. The real object of his visit—accustoming the people to Western medicine preparatory to the introduction of Western sanitation—is completely lost sight of, if it was ever realised.

The man best qualified to act in this matter as the communal doctor's assistant—viz., the village "kininar"—is not made to do this work through fear of making his office resemble ever so slightly that of the dreaded "feldsher" who everyone hopes to get rid of in time.<sup>1</sup>

(e) *Private Practice.*

Although they are at liberty to attend to private practice in the afternoon, the communal doctors are supposed to spend most of their time in discharging their social duties. As a matter of fact, everyone of them, however great his sense of duty and devotion may be, is simply forced, out of dire necessity, to rely more and more on private practice as a means to earn a living. I am not sure, however, that this is an unmitigated evil, as it is at the moment almost the only chance for the outlying villages to get medical assistance of some sort, and as it may be expected to hasten the disappearance of the "feldshers".

#### 4. THE NEW SYSTEM AND THE MALARIA CONTROL AMONG THE REFUGEES.

Recurring to the question, stated above, on the merits of the new system as a protection to the refugees against malaria, and leaving aside for the moment all special malaria control, one may ask whether the refugees suffering from malaria will receive adequate care—i.e., a moderate quinine treatment closely following every primary attack or relapse and a special treatment for cachectic patients.

I feel that I should not be justified in giving an affirmative answer. The new organisation, as it stands at present, does not meet these minimum requirements—not, at least, in the outlying villages.

Still, I maintain that this organisation is well adapted to the present rural conditions. All it needs is better execution and some minor corrections. The following points should receive special attention :

(a) *Salary and Transport.*

See the points (a) and (b) of No. 3 above. I have been assured by the competent authorities that this question will be settled satisfactorily before many months have elapsed. This will remove every excuse for the communal doctors to neglect their weekly visits to the outlying villages.

(b) *Medicines on Tours of Visit.*

The communal doctor, on his visits to the outlying villages, should take with him a stock of medicine, in the selection of which he may be guided by the experience gained till now in his private practice.

The medicine stored in the dispensary should benefit all the villages of the health commune and not only the central one.

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<sup>1</sup> An idle hope for the present, as four health communes have already appointed a "feldsher" as their health officer. They have to pay them only 3,400 leva a month.

Patients in outlying villages should not, as a rule, be obliged to go to Burgas or some other distant centre to have their prescriptions prepared. They should apply to the dispensary of their own health commune, if the prescribed medicine is not in the portable dispensary of the visiting doctor, unless the latter undertakes to deliver it at his next visit.

(c) *The Village "Kininar" as the Communal Doctor's Assistant.*

The communal doctor, on his weekly visit, should immediately be presented with a list of all patients requiring his attention, not the severe cases only. As far as their condition allows, they should collect at the "kmetstvo" (mayor's office), the others should be visited at home. This list should be prepared by the village "kininar", assisted, if need be, by the village schoolmaster, the village priest, and the municipal secretary.

Moreover, the "kininar" should be required to carry out all orders given him by the communal doctor with regard to the treatment of patients and the execution of sanitary regulations in the interval between two visits.

These orders should, however, be framed to fit the limited abilities of the simple, little-educated "kininar".

They should be simple and clear, leaving no room for personal initiative. But, in the dispensing of quinine, the "kininar" should be at liberty to begin the treatment of a new fever patient, on condition that this patient meets the communal doctor, without fail, on the latter's next visit.

(d) *Treatment of Malaria.*

This should be included among the routine duties of the communal doctor. He should be responsible to his own superior—the departmental health officer—for the stock of quinine, the "kininar" acting only as his assistant. He should be at liberty to begin, continue or stop a course of quinine treatment whenever or wherever he sees fit, quite independent of the results of blood examination. The latter should be a help, not (as it is at present) a blind fate, ruling with an iron, but not intelligently guided, hand the giving or withholding of anti-malarial treatment.

(e) *Experimental Villages.*

Special provisions should be made to follow up the advantage already gained in certain villages where anti-larval measures have been applied successfully, owing to the previous execution of expensive drainage schemes, which would soon be rendered useless, without continued maintenance and treatment by larvicides of the drainage ditches and other, still remaining, breeding-places. This work should not be left to the communal doctors, far less to the "kininars", but to the malaria division of the hygienic institute in Burgas, acting under the departmental health officer. This division should be well equipped for the purpose (its budget has been recently curtailed to such an extent that it cannot possibly discharge its duties) and should be free to carry out other anti-larval campaigns in villages where local conditions seem favourable, on condition, however, that no fresh work is begun that cannot be successfully carried out and maintained without any outside help.

The same applies to the villages where the malaria doctor's unrelenting diligence has succeeded in reducing malaria more than anywhere else by systematic quinine cures. Like the villages with anti-larval work, they should be kept under the immediate supervision of the malaria division of the Burgas Hygienic Institute.

### III. CONCLUSIONS OF THE PRESENT AND THE THREE PRECEDING REPORTS.

The experience I gained in South-East Bulgaria has vividly impressed me with the magnitude of the mistake one commits in trying to carry out anti-larval measures on an extensive scale in a country where the population has as yet received such scanty sanitary education that they do not even appreciate the boon conferred upon them by the establishment of fairly complete medical assistance in rural areas where nothing of the kind has existed before.

To burden with lectures on anopheles and larvæ a rural population whose municipal authorities have not the wit to perceive that it is to their advantage to have a doctor in the village and to expect these people to carry out anti-larval measures intelligently is useless. Such a course of action shows that it is not as yet understood what a magnificent but nicely adjusted weapon it is Sir Ronald Ross and others have thrust into our hands, and how carefully it should be handled.

To make such a population swallow quinine for weeks at a time is a feat which may be accomplished by a doctor who knows every single soul in his practice and who has treated and nursed them through every possible illness. Such a man can do anything with the people, because he has gained their confidence. But it is a mistake to believe a doctor can carry out such a task who is a stranger to the population and who is not allowed to treat any disease but malaria.

All these mistakes have been made in the sanitary organisation among the refugees, and so I feel at liberty to criticise them freely, because I am entitled to take all the blame. They may be summarised by saying that this organisation began at the wrong end, selecting highly technical and specialised measures against one single disease, without the funds necessary to carry them out except with the intelligent co-operation of the inhabitants. And this co-operation could not be expected of a population which had not received a sanitary education required for this purpose.

The new organisation begins at the right end. It does not consider it a satisfactory means of sanitary propaganda to have anti-larval measures, which are obviously and admittedly useless, carried out by a doctor whom the people look at askance because he seems interested in nothing but malaria. Its task is to win the people's confidence in the old-fashioned but never-surpassed way of curing the sick. Once this confidence is gained, the communal doctors will venture on the task to explain the object of various sanitary measures and to incite the people to co-operate in carrying them into effect. Then comes the time to ask their help in the fight against malaria. But, before that event, one should have fixed one's choice as to which measures to use, where to apply them and how to make the population collaborate. That is the reason why it is absolutely necessary to enable the Burgas hygienic institute to continue its experiments in malaria control.

But let them beware of polypragmatism, *ut aliquid fieri videatur*. This danger is threatening even now, when the communal doctors are ordered to spend their time in the outlying villages on "sanitation" to the detriment of their principal object—gaining the people's confidence by curing the sick and so preparing the way for future sanitation.

In a country where the economic conditions allow of a sufficient number of private practitioners to earn their living in rural areas, and where sick-clubs provide for medical attendance to everyone, these private practitioners form together a natural and unpaid sanitary intelligence and propaganda service which the public health department can use without any expense. But in countries where no rural private practice exists which is accessible to all, this sanitary intelligence and propaganda service has to be paid for. The money must be found among a population not accustomed to pay their own way towards health, and so the artificial organisation is necessarily inferior to the natural one in size and efficiency. In some tropical countries, missionary corporations and private agricultural companies are trying to solve this difficulty by employing a comparatively small number of health-officers, stationed in central villages, each surrounded by a number of assistants stationed in the outlying villages. These assistants, each provided with a small dispensary, are trained to be the active and intelligent assistants to the health officer, who never fails, however, to visit them once a week. This weekly supervision, which effectually prevents, these assistants from becoming second-rate practitioners, is the corner-stone of the whole system.

I am well aware that such a system would be denounced in Bulgaria as "feldsherism". It is not realised there that the radical evil of "feldsherism" does not lie in the existence of trained medical assistants, but in their being left at liberty to act independently and to perform private practice.

A time is sure to come when the public health authorities in Bulgaria will find out that they cannot make their new organisation work efficiently without the help of these trained medical assistants, and that the thing to guard against is to render them worse than useless by leaving them free to act independently. The material for this future offspring of the new organisation already exists in the shape of the village "kininars".

The sooner the public health authorities become aware that it is worth their while to develop this off-shoot into something useful, the better it will be for rural sanitation in Bulgaria.

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ANNEX 8.

C.H. 923.

NOTE BY DR. NORMAN WHITE ON THE ATHENS SCHOOL OF HYGIENE.

Delays in the completion of the school buildings will make it impossible to begin the first course of training for medical officers of health before January 1931. These courses will extend over an academic year. Every endeavour will be made in future years to commence the course in the month of October, so that it can be completed before the hottest months.

ENTRANCE EXAMINATION.

There will be a competitive entrance examination for admission to these courses for all students except officials already in Government service. This examination will probably be held at the beginning of December. The subjects for this examination will be :

1. A written examination in elementary science—biology, chemistry and physics ;
2. A clinical examination ;
3. A composition on one of three subjects of a general medical or public health nature. The subjects will be of such a nature as to test the general knowledge and capacity of the candidates ;
4. The translation of a page of a medical book or journal from English or French or German into Greek—the choice of the language being left to the candidate ;
5. An oral examination on the subjects of the written papers.

Should the number of candidates be sufficiently great, subjects 1, 2 and 5 will be the test of "admissibility" ; those who satisfy the examiners will be eligible to compete for admission—subjects 3 and 4.

PROVISIONAL PROGRAMME OF COURSE OF TRAINING FOR THE DIPLOMA IN PUBLIC HEALTH.

The provisional programme of the course, which is set out below, provides for the adequate treatment of subjects ordinarily included in the curriculum of training for a Diploma in Public Health. It is unusual in respect of the amount of time devoted to the subject of malaria—fifteen hours' lectures and seminars, forty-five hours' laboratory work and four weeks' field work (July).

Tuberculosis also receives much attention—seventeen lectures ; each followed by a seminar or practical demonstration, and fifteen afternoons in a tuberculosis dispensary.

Most of the theoretical and all the laboratory training will be given in the first two terms.

The amount of time to be devoted to each of the main groups of subjects is as follows :

*Bacteriology.*

The use of the microscope. Blood films—blood cell enumeration. Bacteria—morphology and physiology—simple staining—gram staining—special stains—methods of cultivation : culture media. Pathogenicity—resistance—infection. Isolation and identification of bacteria. The coli-typhoid group : the dysenteries. Staphylococci : streptococci. *B. diphtheriæ* and the diphtheroids ; pneumococcus : other diplococci of pathogenic importance.

The tubercle bacillus. *B. lepræ*. *B. pestis* and the pasteurilla group. The vibrios : *V. cholerae*. Spirochætes : relapsing fever. Syphilis. Food poisoning : salmonella group. *B. melitensis*. Some anærobæ. Principles of immunity. Agglutination : complement deviation. Bacteriophage. The bacteriological examination of water. The bacteriological examination of milk—filter-passing viruses (mycology, ringworm fungi, etc.).

Thirty-one hours' lectures and seminars ; ninety-three hours' practical laboratory work.

*Malaria.*

Fifteen lectures ; forty-five hours' laboratory work ( one month field work after second trimester).

*Other Protozoa.*

Leishmania and pathogenic amœbæ.  
Four lectures ; twelve hours' laboratory work.

*Helminthology.*

Trematodes : cestodes and nematodes, with special reference to echinococcus, ascaris, ankylostomes and the helminths of importance in meat inspection.  
Six lectures ; twelve hours' laboratory work.

*Entomology (other than Mosquitoes).*

Fleas, lice, sandflies, ticks, bugs, the house fly, scabies.  
Seven lectures ; eighteen hours' laboratory work.

*Physiology.*

The needs of the body — diet — uses of food — value and classification of foods — amount of food — balanced diets — accessory food factors — vitamins — physical fitness — work and fatigue — exercise — sleep — personal hygiene — air and ventilation. The Kata thermometer — clothing — physiology of the infant : growth, feeding — adolescence. Physiology of vision and visual fatigue. Efficiency and fatigue in industry — measurement of fatigue — special physiological problems in industry ; sex and sex hygiene ; heredity and disease ; eugenics.

Thirty hours lectures and seminars ; eight hours' laboratory work.

*Meteorology.*

Certain physical laws ; thermometers ; barometers ; hygrometers and rain-gauges ; sunlight and wind.  
Five hours.

*Chemistry.*

Volumetric analysis. The use of the balance. Hydrogen ion concentration : colorimetric estimation of P.H. Colloids and absorption. Chemistry of water. Chemical methods of water purification. Chemistry of milk. Food values. Food preservatives — butter and margarine — flour. Chemistry of the air. Disinfectants. Chemotherapy : quinine.

Twenty-one lectures and seminars ; sixty hours' laboratory work.

*Statistics.*

Collection and verification of data. Responsibilities of a health officer. Methodology (limited to essential needs of a health officer).

Fourteen lectures and seminars ; twenty-eight hours' practical work.

*Epidemiology.*

Introductory — historical — general principles. Special — communicable diseases — non-communicable diseases. Method of investigation.

Fifty lectures and seminars ; twelve half-days at infectious diseases hospital (in addition to two weeks at end of course).

*Tuberculosis.*

Seventeen lectures and seminars, with illustrative visits to institutions ; fifteen afternoons' work in tuberculosis dispensary or hospital (in third trimester).

*Venereal Diseases.*

Twelve afternoons devoted to instructional work in venereal diseases hospital and clinic.

*Public Health, including Administration and Legislation.*

Health of the State — central and peripheral organisations. Municipal health organisation and administration ; rural health work. The functions and responsibilities of health officers, public health nurses and sanitary inspectors. Responsibilities of health officer with regard to infectious disease hospitals, sanatoria, hospitals, dispensaries, asylums, prisons, health centres. Control of foodstuffs. Training of midwives. Prenatal care. Maternity. Infant welfare. Care of child of pre-school age ; school hygiene. Examination of school-children, nature, procedure. Correction of defects — teeth, eyes, ears, orthopædics. Infectious disease in schools. Special schools for defectives ; open-air schools — holiday camps — physical culture — sports and games. Health insurance. Periodic medical examination. Sanitary surveys. The management of a public health office ; reports, records, registers. The health needs of a community. Elaboration of public health programme : budget. Propaganda and health education. Report

writing. Industrial hygiene. The care of the blind. Alcoholism and drug addiction. Public health and the medical profession. Economic and sociologic aspects of public health. International public health ; conventions. Port health work. Disinfection. Public health legislation.

Ninety hours' lectures and seminars ; work in health centres and district work (fifty-six hours) ; school hygiene practical work (eighteen hours).

#### *Sanitation and Sanitary Engineering.*

Sites and plans : plan drawing and reading. Water supplies. Protection and purification of water. Sewage and excreta disposal. Refuse disposal. Housing and house sanitation. Dust. Ventilation and heating. Lighting. Urban and rural sanitary problems. Town planning. Slaughterhouses (meat inspection, fish inspection ; other foodstuffs). Dairies ; markets ; factories and workshops ; schools ; hospitals ; nuisances ; ratproofing ; flyproofing ; mosquito control.

Thirty-eight hours' lectures and seminars ; thirty-two hours' inspection and field work.

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Eighteen hours are reserved for visits to additional places of health interest.

The above represents twenty-four weeks' work (thirty-three hours per week) from January 6th to June 27th, 1931, allowing one week's vacation at Easter.

Malaria field work will extend from June 29th to July 25th.

July 25th to September 15th, long vacation.

During the last three months arrangements will be made for :

- (1) Work in a tuberculosis dispensary (fifteen half-days) ;
- (2) Detailed health and sanitary surveys of limited areas and a discussion of these survey reports ;
- (3) Two weeks' fever hospital work ; and
- (4) Practical experience of health administration and practice in reorganised districts of Greece.

The time allotted for field work during the entire course is about five months.

The examination for the Diploma of Public Health will probably be held at the end of November 1931.

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#### ANNEX 9.

C.H.922.

### PROGRESS REPORT BY MR. A. PALLIS, SECRETARY-GENERAL, MINISTRY OF HEALTH OF GREECE, ON THE REORGANISATION PROGRAMME OF THE PUBLIC HEALTH SERVICES IN GREECE.

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The programme for the reorganisation of the Public Health Service in Greece, approved in May 1929 by the Council of the League of Nations and the Hellenic Government, has entered on the path of realisation.

The first step that had to be taken in order to give effect to the programme was to obtain the necessary legislative sanction.

A Bill, entitled " Bill for the Creation of the Athens Centre of Hygiene and the Transfer to the Ministry of Hygiene of Certain Public Health Services now subordinate to other Ministries ", was therefore submitted to the Chamber in July 1929, and obtained force of law in August of the same year.

The following are the principal provisions of this law, which constitutes, so to say, the fundamental charter of the new organisation :

*Article 1* provides for the creation of the Centre under the authority of the Minister of Health and states that the districts and towns for the application of the reorganisation programme will be fixed from time to time by decree.

*Article 2* provides that the School of Hygiene shall be placed under the direction of the Centre.

*Article 3* authorises the Government to engage three foreign specialists as technical advisers.

*Article 4* fixes the amount of the annual budget grant of the new organisation during the financial years 1929-30 to 1935-36. The following are the sums so assigned :

	Drachmæ
1929-30 . . . . .	21,000,000
1930-31 . . . . .	35,000,000
1931-32 . . . . .	47,000,000
1932-33 . . . . .	59,000,000
1933-34 . . . . .	77,000,000
1934-35 . . . . .	98,000,000
1935-36 . . . . .	68,000,000

and 50,000,000 drachmæ for each subsequent year.

*Article 6* gives powers to the Government to regulate by decree all further details arising out of the application of the programme and specifically the following : the method of functioning of the Centre ; the method of collaboration between the Centre and the Hellenic Pasteur Institute ; the functioning of the School of Hygiene ; and the number of the personnel and their salaries.

*Article 7* gives authority to the Government to transfer by decree all public health services at present attached to other Ministries to the Ministry of Health.

*Article 8* provides that, in the future, no laws, decrees or regulations affecting matters of public health shall be voted or promulgated without the Minister of Health being previously consulted.

In accordance with Article 3 of the above-mentioned law, the Government obtained the loan of the services of Dr. Norman White, who has been engaged as Director of the School and Technical Adviser for the period of three years from October 1929. For the other two posts of technical adviser provided for under the law, the Government obtained the services of two experts, Dr. M. C. Balfour and Mr. D. E. Wright, from the International Health Division of the Rockefeller Foundation, which generously offered to pay their salaries. The arrangement concluded between the Greek Government and the Rockefeller Foundation provides that the first of these two experts will act as Technical Director of the Division of Malariology, and the other, Mr. Wright, as Technical Director of the Division of Sanitary Engineering of the Athens Centre and School of Hygiene. The two gentlemen in question arrived in Athens on March 22nd and have taken up their duties.

I am glad to be able to report that the most important of our decrees concerning the application of the new programme—namely, the one dealing with organisation of the Centre, has now been approved by the Minister of Finance and will shortly be published in the *Official Gazette*.

The principal provisions of this decree are as follows :

*Article 1.* — The Centre, together with the School, which, as previously stated, is a department of the Ministry of Health, will be directly under the Secretary-General of the Ministry of Health, and under the technical authority of the Director of the School.

*Article 2.* — The Centre will have control of all public health activities in the districts selected for the application of the new programme. (These districts are, for the moment : the metropolitan area of Athens-Piræus and the prefectures of Corfu, Canea, Alexandropolis and Arta. The authority of the Centre will be gradually extended by decree to other districts.) The Centre will also be responsible, through the School, for the training of all classes of public health personnel. It will also have certain general attributes, such as the investigation of problems of particular interest for the public health of Greece and the giving of technical advice to all branches of public health service.

*Article 3* defines the functions of the various divisions (Divisions of Public Health, School Hygiene, Malariology, Chemistry and Pharmacology, Sanitary Engineering, Research) and fixes the number and salaries of the staff.

A further decree is already in preparation laying down regulations for the admission of students to the School of Hygiene, the qualifications of candidates and the administration of the School. Candidates will be of two sorts : officials already in Government service and young medical graduates. Candidates other than permanent Government employees must be between the ages of 24 and 35, be in possession of a recognised medical qualification and have two years' experience of their profession. They must also have a working knowledge of either French, English or German.

The above represents the sum of legislative work connected with the organisation of the School.

As no suitable premises were available for the immediate housing of the Centre and School, the Government has purchased a building with a large piece of land on a fine site in the city of Athens. Considerable additions have had to be made to the building in order to adapt it to the requirements of the School. The work is in progress, and it is hoped that it will be completed in December, in which case the School will begin functioning in January. The competitive examination for the admission of candidates to the School will probably be held in December. The number of candidates to be admitted for the first course for the Diploma of Public Health has been fixed at twenty-four.

#### TRAINING OF NURSES.

A course for the training of assistant health visiting nurses was opened in February 1930. For this purpose, a building was rented and suitably equipped. Here the students are provided with board and lodging. Twenty-seven students are attending the course, and their progress has been extremely satisfactory. The supervision of this course was entrusted by the Ministry of Health to the Greek Red Cross Society. Mlle Vasillopoulo, one of the most experienced members of the Red Cross Nursing Staff, is the Director of the School, and has carried out her duties in an admirable manner.

The first course will terminate in November 1930. It is hoped to start a second course in January 1931.

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Since his arrival in Greece, Dr. M. C. Balfour has devoted more than half his time to travel and field studies. He has visited Macedonia, Thrace, Thessaly, Phthiotis and Phocis, Attica and Bœotia, and the Peloponnese. Some of these tours were of the nature of a general survey of malaria conditions : certain areas in Macedonia and the Peloponnese have been visited frequently and are being studied in detail. Pending the completion of the buildings of the Athens Centre, laboratory accommodation has been kindly placed at Dr. Balfour's disposal by the Director of the Hellenic Pasteur Institute. Two young Greek doctors have been employed as assistants to Dr. Balfour since May ; they have been trained in field work and will be able to assume some responsibilities in study and demonstration areas next year. A technician has also been employed and has been gaining laboratory experience.

The areas selected for special malaria study this year are :

(1) Marathon : This village has been visited regularly and anopheline data have been collected three times per month. This area may be used for field experience by students at the School of Hygiene.

(2) Drama : This is a town with 30,000 inhabitants in Eastern Macedonia, and is representative of the urban population which suffers from malaria.

(3) A group of four villages near Ægion on the southern coast of the Gulf of Corinth. Here anopheline observations have been regularly made.

Mr. D. E. Wright has also undertaken several tours with the object of becoming acquainted with general conditions in different parts of Greece. At the request of the Ministry of Health, he has also carried out inspections of, and made reports on, either existing or proposed water supplies for various towns and villages.

Similar inspections and reports with regard to proposed sewer systems have been made. Designs and recommendations have been made for latrines in several areas, a septic tank for schools and other public buildings and other work of a similar nature. Swampy areas have been studied with a view to drainage. Some of the sanitary problems of Athens have engaged much of Mr. Wright's attention ; he is at present making a critical study of the proposed sewer systems of the city.

During the present year, a Greek medical officer participated in the French interchange, and three others in the Balkan interchange, organised by the League's Health Organisation. Two officers were accorded fellowships by the League.

Two engineers and three young medical officers have been granted fellowships by the International Health Division of the Rockefeller Foundation : they have already left for the United States of America. On their return, their services will be employed in connection with the programme of sanitary reorganisation.

ANNEX 10.

C.H. 911.

NOTE FROM PROFESSOR LÉON BERNARD, ON THE SEVENTH  
CONFERENCE OF THE INTERNATIONAL UNION  
AGAINST TUBERCULOSIS.

(Held at Oslo from August 12th to 15th, 1930.)

The Seventh Conference of the International Union against Tuberculosis met at Oslo from August 12th to 15th. At this Conference, I had the honour to act as the representative of the Health Committee. It is therefore in that capacity that I shall give you a brief account of this Conference, and not as the Secretary-General of the International Union against Tuberculosis.

The Conference, in which not less than 600 delegates took part and which was honoured by the presence of the Norwegian Royal Family, dealt with vaccination by BCG, with thoracoplasty, and with instruction on tuberculosis. As you see, two out of these three subjects directly or indirectly concern the Health Committee.

BCG.

The Rapporteur of the BCG Commission was Professor Calmette himself. He made a point of replying to certain criticisms which have been most frequently levelled against BCG and of proving that it is really absorbed when administered *per os*, and that it does not revert to virulence in the human and animal organism even when attempts are made to increase this virulence artificially. He also demonstrated the absence of virulence in the R and S strains dissociated from BCG—a fact admitted by all the bacteriologists who followed up the experiments of Petroff.

I shall not dwell upon the first point, on which my collaborators, and I myself, have helped to throw light by showing the high percentage of persons vaccinated *per os* in whom tuberculine allergy is obtained. I would rather enlarge on the vital question of the innocuousness of BCG which the International Conference on BCG, convened by the Health Committee in 1928, rightly emphasised.

At Oslo, our colleague, Dr. Hamel, asked that the deplorable incidents at Lübeck should be left out of the discussion. He stated that the results of the enquiry undertaken by the scientific and administrative authorities of the Reich would be eventually published, but that it was already possible to say that the strains of the Pasteur Institute had not been found to be in any way responsible.

Professor Neufeld, of Berlin, made an important contribution by pointing out that the Robert Koch Institute had examined Petroff's so-called virulent strains of BCG, and that this examination had shown that these were human tuberculosis bacilli and not BCG, which is bovine. Thus, Petroff's researches and the criticisms founded thereon were invalidated.

All the co-Rapporteurs unanimously affirmed the innocuousness of BCG. Those among them who dealt with human vaccination, starting with our colleague, Professor Cantacuzène, through the intermediary of Dr. Weber, all definitely asserted its premunising efficacy. This view was supported by Mr. William Park, of New York; M. Sayé, of Barcelona; M. Heijnsius van den Berg, of Amsterdam; M. Michalowicz, of Poland; M. Naeslund, of Sweden; and M. Scheel, of Norway. The general impression left on those who participated in, or were present at, this detailed and keen discussion was that the process of vaccination by BCG had received a singular corroboration.

I shall deal more briefly with the question of instruction on tuberculosis for students, although it affects the work of the Committee on the Teaching of Hygiene and although, as hygienists, none of us can be indifferent to it. If opinion is not unanimous on the desirability of setting up in the principal medical centres special chairs of tuberculosis (the divergency of opinions in this respect was demonstrated by an enquiry carried out in universities in Germany and outside Germany by Professor His, of Berlin, and also by the reports and communications presented to the Conference), it is none the less true that the capital importance of instruction on tuberculosis for students is generally recognised—that is, systematic and compulsory instruction, utilising not only university clinics, but also dispensaries and hospitals, so that general practitioners in every country should know, and be able to make use of, the medical and social weapons at their disposal. It was universally, or almost universally, admitted that, at present, the weight given to instruction on tuberculosis at the various Faculties of Medicine is not commensurate with the social importance of this disease. Further, the need for specialised theoretical and practical instruction for tuberculosis specialists who are to be in charge of anti-tuberculosis institutions was universally recognised. If the former are not adequately trained in this respect, anti-tuberculosis measures will not yield their full results, and general practitioners will only co-operate usefully in the work of the institutions if they have received proper instruction and are convinced of its efficacy.

In conclusion, I should like to lay before you a proposal made by Professor Mainin, of Buenos Aires, and adopted by the International Union. He advocates an enquiry into the best means of obtaining the unification of phthisiological nomenclature, the establishment

of a standard or minimum scheme for the campaign against tuberculosis, improvement of the facilities for the exchange of information between tuberculosis specialists in various countries and the compilation of a rational and impartial international bibliography of tuberculosis. The Union decided to refer these proposals for study to a special committee; but it recommended, with the concurrence of the author of the proposals, that such measures should only be taken in co-operation and in agreement with the Health Organisation of the League of Nations. In submitting to you this recommendation, I hope that you will give a favourable opinion on the desirability as well as on the methods of realising this co-operation, the importance of which you no doubt fully realise. There can be no question but that the problems contemplated are of capital importance to the progress of the anti-tuberculosis campaign and come well within the province of international co-operation in health matters conducted on scientific lines, the aim which has always inspired your work. I venture to hope that the interest which the Health Organisation of the League has always taken in problems relating to tuberculosis will lead you to respond to the invitation of the International Union against Tuberculosis and lend it your assistance.

C.H. 895.

**ANNEX 11.**

**REPORT ON LABORATORY WORK ON SERO-DIAGNOSIS  
OF SYPHILIS CARRIED OUT AT COPENHAGEN  
ON AUGUST 4TH AND 5TH, 1930.**

The work began with the joint examination of twenty-six samples of sera provided by the State Serum Institute of Copenhagen. All these sera were examined by six groups of investigators—viz :

Professor DEBAINS, Institut Pasteur, Paris, using the Wassermann test according to Calmette-Massol-Debains ;

Professor HECHT, of Prague, using the active Wassermann test, the " Kugelflockung " test and the Wassermann test with titrated amboceptor ;

Professor KLINE, Western Reserve University, Cleveland, Ohio, using his test ;

Dr. MEINICKE, of Ambrock, assisted by Mme. Meinicke, using the Meinicke micro-test.

Professor MÜLLER, of Vienna, assisted by Dr. Brandt, using the Müller-Ballungsreaktion (clotting) test II and the Müller-Ballungsreaktion (centrifuge) test ;

Dr. NORÉL, State Serum Institute, Copenhagen, assisted by Mlle. Ojgaard, using the Kahn test.

The results of these investigations are given in an appended table (Appendix I).

\* \* \*

There followed a discussion, presided over by Dr. Madsen ; Dr. Boas (Copenhagen) and Colonel L. W. Harrison (London) also took part.

Professor Prausnitz acted as secretary.

It was noted that the results obtained with the tests according to Kahn, Kline, Meinicke micro and Müller-Ballungsreaktion II showed complete agreement. The Wassermann test performed by Professor Debains was not quite so sensitive, but showed no deviation from the specific ; this was considered to be a very fair result of a Wassermann test. The tests performed by Professor Hecht showed a slightly lower degree of sensitivity and were not absolutely specific ; the former fact was explained by Professor Hecht as being due to the age of the sera. The latter, he pointed out, was not sufficiently marked to cause a mistake in diagnosis, because he always reported an examination as positive only when at least two tests were strongly positive.

It was agreed that, of course, the small number of sera examined did not allow any definite conclusions to be drawn as to the superiority of one or the other method. Still, it was generally agreed that we have to-day flocculation methods of an exceedingly high degree of sensitiveness and of specificity.

It was, however, pointed out by various members of the Conference that, occasionally, one or more of these methods may give a negative result in sera showing positive Wassermann or other reaction.

The point was then brought up that the principles outlined in the report of the Second Laboratory Conference in Copenhagen (1928) had not as yet received sufficient attention in some countries.

It was generally agreed that it would be very desirable to bring the matter to the notice of the members of the Eighth International Congress of Dermatology and Syphilis, who were at that moment assembled in Copenhagen.

Appendix I.

RESULTS OF THE LABORATORY EXPERIMENTS ON SERO-DIAGNOSIS OF SYPHILIS CARRIED OUT AT THE STATE SERUM INSTITUTE, COPENHAGEN,  
ON AUGUST 4TH, 1930.

No. of Serum	Kline		Noréi (Kahn R).	Meinicke (Micro)	Müller		Hecht			Debains (W.R.)	Diagnosed Clinically
	D.	E.			MBR. II.	MBR. Z.	Kugelf.	Activ.	Wasser. B. with tit. amboc.		
1	—	—	—	—	—	—	+	+	—	—	Morb. cord.
2	—	—	—	—	—	—	—	—	—	—	Tumor pulm.
3	—	—	—	—	—	—	—	—	—	—	Carc. œsoph.
4	—	—	—	—	—	—	+	—	—	—	Bronchit. fœtida
5	—	—	—	—	—	—	—	—	—	—	Morb. cordis.
6	—	—	—	—	—	—	—	+++	trace	—	Febr. undul.
7	—	—	—	—	—	—	—	+++	—	—	Gravid
8	—	—	—	—	—	—	—	—	—	—	Gravid
9	++	++	++	++	++	++	+++	+++	+++	+ A5	Syph. tracht.
10	++	++	++	++	++	++	+++	+++	+++	+ A5	" congenit. lat.
11	++	++	++	++	++	++	+++	+++	+++	+ A5	" tract.
12	++	++	++	++	++	++	+	+++	—	+ A5	" "
13	+	++	+	+	++	++	—	—	—	—	" "
14	++	++	++	++	++	++	+	+++	—	+ A5	" "
15	++	++	++	++	++	++	+++	+++	+++	+ A5	" "
16	++	++	++	++	++	++	++	+++	+++	+ A4	" "
17	++	++	++	++	++	++	+	+	+	+ A4-5	" "
18	++	++	++	++	++	++	+++	+++	+++	+ A5	" recens. II
19	++	++	++	++	++	++	+	+	+	A4	" latens
20	—	—	—	—	—	—	—	—	—	—	" "
21	++	++	++	++	++	++	++	+++	+++	+ A5	" "
22	—	—	—	—	—	—	—	—	—	—	Eczema
23	++	++	++	++	++	++	++	+++	+++	+ A5	Dement. paralyt.
24	—	—	—	—	—	—	—	—	—	—	Gonorrhœa
25	—	—	—	—	—	—	—	—	—	—	Cancer pulm.
26	+	++	+	+	++	++	—	—	—	—	Syph. latens.

11 controls. 15 syphilis.



To this end, a statement was to be drawn up, embodying the chief points of the resolutions of the report on the Second Laboratory Conference of 1928. The statement was also to embody some more recent experience obtained on the subject of flocculation test. It was also considered essential to arouse the interest of the general practitioners in the problems concerned, and it was agreed that the leading medical journals of all countries should be asked to publish a statement on the subject. It was decided to ask the Health Organisation take the necessary steps for this purpose.

The text of the statement was prepared and approved by the members of the meeting, including Colonel Harrison, on August 6th, and was subsequently communicated to the Congress by Professor Jadassohn and Dr. Madsen (Appendix II).

## Appendix II.

### STATEMENT BEFORE THE 8TH CONGRESS OF DERMATOLOGY AT COPENHAGEN

Copenhagen, August 5th, 1930.

The Health Organisation of the League of Nations has already made a detailed investigation into the sero-diagnosis of syphilis at two laboratory conferences held in Copenhagen (1923 and 1928), and has summed up the results in the form of a number of guiding principles (League of Nations Publications C.H.726, Geneva 1928). It appears, however, that these guiding principles have not become generally current among the specialists concerned.

The Health Organisation of the League took advantage of the presence at Copenhagen of a number of expert serologists who are attending the Eighth International Dermatological Congress 1930, to arrange for a discussion on the experience acquired during the last years in the field of the sero-diagnosis of syphilis. The members of this meeting thought it desirable once again to recommend strongly to the Congress the principles laid down in 1928. Furthermore, they regarded it as urgently necessary to press strongly for the communication of these principles to the whole medical profession in all countries.

The most important points of these principles have been summarised below in the light of the experience since acquired.

#### PRINCIPLES.

1. In order to secure the most reliable information to the clinician, at least two different sero-diagnostic methods should always be used. Even to-day, the majority of research workers still hold it to be desirable that one of the methods used should be a Bordet-Wassermann test. On the other hand, and especially since the last laboratory Conference, certain flocculation tests have been elaborated which have so high a degree of sensitiveness and specificity that recourse should always be had to at least one of these tests; but in all cases which prove difficult to judge, either serologically or clinically, several different highly sensitive flocculation tests should be used.

2. In the interests of uniformity in the interpretation of the serological results of different Institutes, it should be pointed out—in repetition of the conclusions of the laboratory conference of 1928—that :

Only an unquestionably negative reaction should be reported as " — " or " negative " ;

Only an unquestionably positive reaction should be reported as " + " or " positive " ;

All reactions which are neither unquestionably negative nor unquestionably positive should be reported as " ± " .

It is open to the serologist, in the case of positive reactions, to add explanatory notes as to the degree of strength of the different reactions.

3. In order to ensure between the serologist and the clinician that liaison which is essentially required, it is desirable that the report issued by the serologist should be accompanied by detailed explanations as to the interpretation to be placed on the serological findings.

The following text may serve as an example :

Expressed in terms of the internationally accepted notation :

+ means that the serological test gave a positive result. A diagnosis of syphilis should, however, not be based on a single positive reaction alone ; if the clinical symptoms do not tally with the serological findings, the test should be repeated. If in such a case the sample is labelled " Repeat sample " , it will be subjected to a very extensive examination by various methods. If these also yield a positive result, syphilis is indicated with a high degree of probability.

± means that the tests performed do not enable any definite pronouncement to be made as to whether the reaction is to be termed positive or negative. If the patient is known to have been infected with syphilis, the result must be regarded as a positive reaction of slight degree. If there is no history or clinical evidence of syphilis, the serological result indicates the necessity of making a particularly careful examination of the patient and of sending in a "repeat sample" (see above). If the result is once again ±, the reaction should be regarded as negative.

— means a negative result, which does not, however, exclude the possibility that the patient may have syphilis, since reactions frequently fail to occur in the first stage of the disease, before secondary symptoms have made their appearance, and may also fail to occur at times in the later stages ; the same thing happens following treatment.

C.L.302.1930.III. Annex II.

**ANNEX 12.**

**REPORT OF THE OPIUM COMMISSION TO THE HEALTH COMMITTEE**

*Rapporteur*: Dr. CARRIÈRE.

A number of questions arising out of the application of Articles 8 and 10 of the Geneva Opium Convention have been referred to the Opium Commission of the Health Committee. After examining these questions at a meeting held on October 2nd, at which Dr. Chodzko, Dr. Hamel, Dr. King, Professor Ricardo Jorge, M. Velghe and Dr. Carrière (President and Rapporteur) were present, the Commission has the honour to submit the following report for the Committee's approval.

**APPLICATION OF ARTICLE 8 OF THE CONVENTION.**

Article 8, as will be remembered, allows exemption from the provisions of the Convention in the case of certain preparations which contain a proportion of narcotic drugs over and above the limit allowed in Article 4 (*d*), but in which the drug is compounded with other substances rendering abuse or recovery of the drug impossible.

In application of this article, the Health Committee forwarded to the Permanent Committee of the Office international d'hygiène publique three lists of preparations, for which the Governments of Great Britain, Siam and Germany asked for exemption under Article 8. The Committee of the Office submitted the lists to its Committee of Experts for examination, and adopted in the case of these preparations the proposals made by its Opium Commission in the report attached to document C.H.892

The British Government's list contained the following five preparations with a basis of diacetylmorphine (diamorphine, heroin) :

1. *Elixir diamorphinæ et terpini*. B.P.C.<sup>1</sup> (modified) with Apomorphine (Elixir of Diamorphine and terpin).

Apomorphine hydrochloride . . . . .	5 grains
Diamorphine hydrochloride . . . . .	4 "
Terpin hydrate. . . . .	44 "
Alcohol . . . . .	10 fl. ounces
Glycerin . . . . .	5 "
Syrup of wild cherry . . . . . to	20 "

2. *Elixir camphoræ compositum* (compound elixir of camphor, synonym: Elixir Ipecacuanhæ cum Scilla).

Camphor . . . . .	4 grains
Oil of anise . . . . .	5 minims
Benzoic acid. . . . .	6 grains
Diamorphine hydrochloride . . . . .	4 "
Liquid extract of ipecacuanha . . . . .	120 minims
Tincture of squill . . . . .	1½ fl. ounces
Simple syrup . . . . . to	20 "

<sup>1</sup> B.P.C. = British Pharmacopœia Codex.

3. *Linctus diamorphinæ*. B.P.C. (modified) with Ipecacuanha (Linctus of Diamorphine).

Liquid extract of ipecacuanha . . . . .	120 minims
Diamorphine hydrochloride <sup>1</sup> . . . . .	4 grains
Tincture of hyoscyamus . . . . .	1½ fl. ounces
Spirit of chloroform . . . . .	1½ "
Syrup of balsam of tolu . . . . .	3 "
Syrup of wild cherry . . . . .	3 "
Glycerin . . . . . to	20 "

4. *Linctus senegæ compositus* (compound Linctus of Senega, synonym : Syrupus Scillæ et Senegæ).

Liquid extract of senega . . . . .	1 fl. ounce
Liquid extract of squill . . . . .	1 "
Tartarated antimony . . . . .	8 grains
Diamorphine hydrochloride . . . . .	4 "
Glycerin . . . . .	2 fl. ounces
Simple syrup . . . . . to	20 "

5. *Linctus thymi compositus* (Hewletts). (Compound Linctus of Thyme).

Diamorphine hydrochloride . . . . .	4 grains
Apomorphine hydrochloride . . . . .	5 "
Distilled water . . . . .	1 fl. ounce
Liquid extract of thyme (I-I). . . . .	5 fl. ounces
Solution of tolu. B.P.C. . . . .	1¼ "
Glycerin . . . . . to	20 "

The Committee of Experts of the Office international d'hygiène publique, and the Office itself, took the view that these preparations might be exempted from the provisions of Article 8, on the ground that the substances with which the diacetylmorphine was compounded (apomorphine, ipecacuanha, tartar emetic) were present in sufficient quantity to prevent any abuse. The Opium Commission accordingly proposes that you should adopt the recommendations of the Committee of the Office international d'hygiène publique, and decide that these five preparations shall be exempted from the operation of the Geneva Convention.

The Siamese Government submitted two lists containing no fewer than seventy-eight preparations, which will be found enumerated in the annex to document C.H.892.

In examining these lists, the Committee of Experts found that, for certain of the preparations, the formula given was not sufficiently precise, or included material errors; the preparations referred to are Nos. 10, 11, 12 and 43 of the second list. It would therefore be desirable, before expressing an opinion on the subject, to ask the Siamese Government for more precise formulæ.

In the case of a second series of preparations, it was found that they did not come under the operation of the Geneva Convention in any way, either because they contain a narcotic—viz., codeine (Nos. 7, 32, 36, 37, 38, 48 and 51 of the second list)—or an emetic, apomorphine (No. 10 of the first list), which does not come under the Convention, or because the proportion of the drug is below the limit fixed in Article 4 (d) of the Convention (Nos. 4, 5, 6, 9, 12, 13, 13a, 14, 15, 15a and 19 of the first list, and Nos. 5, 13, 16, 17, 18, 19, 23, 24, 25, 26, 30, 34, 35, 45 and 47 of the second list).

In a third series, the Committee of Experts of the Office international d'hygiène publique classifies those preparations (Nos. 7, 8, 11, 16, 17, 18 and 20 of the first list, and Nos. 11a, 11b, 11c, 11d, 29, 31, 49 and 50 of the second list) which, though it is true that the proportion of narcotic drugs which they contain is below the limits specified in Article 4 (d) of the Convention, might nevertheless be used in abusive fashion, either because it is easy to increase the proportion of the drug by eliminating a part of the solvent by evaporation, or because they are in reality no more than dry dilutions of the drug in inert powder form, from which it can easily be recovered. The Committee of Experts thought it desirable to direct attention to the dangers inherent in these preparations if exempted from control, and the Committee of the Office international d'hygiène publique proposes to subject them explicitly to control accordingly.

A fourth series contains preparations which should undoubtedly be refused exemption under Article 8 on account of their excessive narcotic content, which is not neutralised, or is insufficiently neutralised, by any substance calculated to prevent abuse. The preparations in question are Nos. 6, 9, 15, 27, 33, 39, 40, 41, 42, 46, 53, 55 and 56 of the second list.

When all these preparations have been eliminated, there remain only Nos. 1, 2, 3 and 21 of the first list, and Nos. 1, 2, 3, 4, 8, 14, 20, 21, 22, 44, 52, 54 and 57 of the second list, which the Committee of Experts considered may be exempted under Article 8, subject to the proviso in the case of No. 44 that it should not be offered to the public under the name of "Anti-opium".

<sup>1</sup> The present formula in the B.P.C. contains 9 grains of diamorphine hydrochloride in 20 fl. ounces.

The following are the names and formulæ of these preparations :

*First List:*

1. *Opium plaster.* British Pharmacopœia.
2. *Ointment of galls and opium.* British Pharmacopœia
3. *Liniment of opium.* British Pharmacopœia.
21. *Indian cigarettes of Grimault* (Dr. Ph. Chapelle).
 

Rx. Belladonna leaves . . . . .	0.962 gramme
Cannabis indica extract . . . . .	0.0005 "
Nitrate of potash . . . . .	0.033 "

*Second List*

1. *Pill of lead and opium.* British Pharmacopœia.
2. *Dover's powder.* British Pharmacopœia.
3. *Pill of ipecacuanha and squill.* British Pharmacopœia.
4. *Compound powder of kino.* British Pharmacopœia.
8. *Diarrhœa pills* (Government Medical Depot).
 

Rx. Camphor . . . . .	0.0648 gramme
Lead acetate . . . . .	0.013 "
Bismuth subnitrate. . . . .	0.162 "
Tannic acid . . . . .	0.0648 "
Opium powder. . . . .	0.026 "
14. *Anti-dysentery mixture* (British Dispensary, Bangkok).
 

Rx. Ol. Ricini. . . . .	42.6188 millilitres
Morphine hydrochlor. . . . .	0.1944 gramme
Flavoured emulsion to make . . . . .	340.95 millilitres
20. *Coryza tablets No. 2* (Frank S. Betz and Co., U.S.A.).
 

Rx. Powdered opium . . . . .	0.0043 gramme
Quinine sulph. . . . .	0.022 "
Ammon. chlor. . . . .	0.022 "
Camphor . . . . .	0.022 "
Ext. belladonna leaves . . . . .	0.0043 "
Ext. aconite root . . . . .	0.0043 "
21. *Diarrhœa tablets No. 2* (Sullivan) (Frank S. Betz and Co., U.S.A.).
 

Rx. Powdered opium. . . . .	0.016 gramme
Camphor . . . . .	0.016 "
Powdered ipecacuanha . . . . .	0.008 "
Lead acetate . . . . .	0.011 "
22. *Dysentery tablets* (H. K. Mulford Co., U.S.A.).
 

Rx. Powder opium. . . . .	0.013 gramme
Powder ipecacuanha . . . . .	0.0648 "
Powder calomel . . . . .	0.0324 "
Lead acetate . . . . .	0.0324 "
Bismuth beta-naphthol . . . . .	0.1944 "
44. *Anti-opium tablets* (Dr. C. Gayetti, M.D.).
 

Rx. Eucodal . . . . .	1 gramme
Pulvis gentian . . . . .	35 grammes
Pulvis ipecac. B.P. . . . .	20 "
Quinine sulphate. . . . .	20 "
Caffeine. . . . .	5 "
Sugar of milk . . . . .	25 "

Mix up and make up 5-grain tablets.

This preparation should not be exempted from the operation of the Geneva Convention, except on condition that it is not offered to the public under the name of "Anti-opium". The Health Committee considers that no preparation exempted from the operation of the Convention should be described as "Anti-opium".

52. *Tabella hydrargyri cum opio.* (Royal Army Medical Service Department).

Rx. Mercurous chloride powder . . .	0.065 gramme
Antimony oxide powder . . . . .	0.065 "
Ipecacuanha root powder . . . . .	0.065 "
Powdered opium . . . . .	0.065 "
Milk sugar . . . . .	0.065 "
Gelatine solution : a sufficient quantity to make 1 tablet.	

54. *Tabella plumbi cum opio.*

Rx. Sugar of lead . . . . .	0.195 gramme
Powdered opium . . . . .	0.065 "
Gelatine solution : a sufficient quantity to make 1 tablet.	

57. *Tablets B.B. compound* (Dr. Lionel Verkey).

Rx. Berberis vulg. power . . . . .	0.0324 gramme
Nux vomica . . . . .	0.013 "
Eucodal . . . . .	0.0032 "
Ipecac. . . . .	0.0648 "
Rhubarb . . . . .	0.013 "
Comp. cinnam. . . . .	0.0324 "
Aromatic chalk . . . . .	0.0032 "

The Committee of the Office international d'Hygiène publique approved the findings of its Committee of Experts ; and we ask the Health Committee to accept them.

The German Government's new list contained the following three preparations with a basis of dicodide or eucodal compounded with powdered ipecacuanha.

1. *Dicodide tablets with ipecacuanha* (Knoll of Ludwigshafen).

(a) Dicodide bitartrate (corresponding to 0.0030 gr. of dihydrocodeinone) . . . . .	0.0050 gramme
Powdered ipecacuanha . . . . .	0.0300 "
Talcum . . . . .	0.0175 "
Starch flour . . . . .	<u>0.0225</u> "
Total weight . . . . .	0.0750 "
(b) Dicodide bitartrate (corresponding to 0.0060 gr. of dihydrocodeinone) . . . . .	0.0100 gramme
Powdered ipecacuanha . . . . .	0.0600 "
Talcum . . . . .	0.0350 "
Starch flour . . . . .	<u>0.0450</u> "
Total weight . . . . .	0.1500 "

2. *Eucodal tablets with ipecacuanha* (Merck of Darmstadt).

Eucodal hydrochloricum (corresponding to 0.004 gr. of dihydroxycodine) . . . . .	0.005 gramme
Powdered ipecacuanha . . . . .	0.040 "
Lactose . . . . .	0.070 "
Starch flour . . . . .	0.090 "
Talcum . . . . .	<u>0.015</u> "
Total weight . . . . .	0.220 "

The Committee of Experts held that it was not possible to apply to these preparations the standard adopted for Dover's powder—that the proportion of powdered ipecacuanha recognised as sufficient to prevent abuse should be ten parts to one part of morphine, when the narcotic consists of opium powder. The Committee felt that this proportion was not sufficient when the ipecacuanha is compounded with an alkaloid, since this increases the possibilities of abuse. It accordingly recognised for preparations of this class (which includes the preparations on the German list) the proportion of one part of the narcotic to twenty parts of powdered ipecacuanha. The German representative having, however, objected to this decision, it was decided, when the question came before the Committee of the Office international d'hygiène publique, to leave the matter open, until the German representative had had an opportunity of getting into touch with the manufacturers of this preparation and of finding with them a practical solution. The Opium Commission agreed to this course, and proposes to you accordingly to take no decision for the present in regard to the three preparations on the German list.

Again, in connection with the application of Article 8, the Committee of Experts reconsidered, at the request of the German Government, a decision previously taken with regard to (a) the "oculets" (minute tablets of cocaine-atropine, each containing a maximum of 0.0003 gr. of cocaine salt and a minimum of 0.0003 gr. of atropine salt) for the local treatment of affections of the eye, containing cocaine compounded with atropine; and (b) solutions, tablets, pills and pastilles containing morphine (or eucodal) compounded with scopolamine or atropine in a proportion of 2 per cent maximum of morphine or eucodal salt and 0.05 per cent minimum of scopolamine or atropine.

The Committee of Experts had proposed not to exempt these preparations under Article 8, in view of their very high narcotic content. But the German representative opposed this decision in the Committee of the Office international d'hygiène publique, and asked that the question should be again submitted to the experts for fresh consideration. After reconsidering the question, the Committee of Experts decided to exempt the "oculets" under Article 8, in view of the existence in their composition of a certain quantity of atropine, which is calculated to prevent abuse, and in view also of the very high price of the "oculets" in comparison with the very low proportion of cocaine (3-10ths of a milligramme per pastille) which they contain.

As regards the other preparations mentioned above, the Committee of Experts considered it necessary to make a distinction between those which contain atropine and those which contain scopolamine. In preparations in which the narcotic is compounded with atropine, it held that the proportion of half a milligramme of the latter alkaloid to two centigrammes of morphine or eucodal was sufficient to prevent any abuse. At the same time, it took into account the possibilities of recovering the drug from these preparations, the possibilities being, for practical reasons, greater in dry preparations than in solutions. It accordingly proposed to exempt under Article 8 only *solutions containing a maximum of 2 per cent of morphine or eucodal salts and a minimum of 0.05 per cent of atropine salts, with the proviso that these solutions should be supplied only in ampoules of 1.1 c.c.* As regards preparations in which morphine or eucodal is compounded with scopolamine, the experts refused to exempt them under Article 8, on the ground that there is a real tendency to acquire a scopolamine habit, which demands a continual increase of the dose to maintain the effect, and that this implies the possibility of a parallel increase (without alteration in the percentage) in the amount of morphine or eucodal, and hence the possibility of abuse. This view has been confirmed by fairly numerous cases of addiction due to the use of the modiscope, a pharmaceutical specialty containing morphine, dionine and scopolamine.

The German representative is understood to have raised objections to the proposals of the Committee of Experts. He waived his objections, however, in order not to prolong the discussion, and the Committee of the Office international d'hygiène publique approved, on the proposal of its Opium Commission, the recommendations of the Committee of Experts. The Opium Commission proposes that the Health Committee should also approve these recommendations, and exempt under Article 8 the two preparations which follow:

1. *Cocaine and atropine tablets* with a content of not more than 0.0003 gramme of cocaine salts and not less than 0.0003 gramme of atropine salts to each tablet, and
2. *Sterilised solutions of morphine or eucodal and atropine* having a maximum content of 2 per cent of morphine or of eucodal salts and a minimum content of 0.05 per cent of atropine salts *on condition that they are delivered in ampoules of 1.1 c.c.*

The Estonian Government has recently submitted a list of preparations for exemption under Article 8. This list will be submitted for opinion and report to the Committee of the Office international d'hygiène publique in Paris.

#### APPLICATION OF ARTICLE 10 OF THE CONVENTION.

It will be remembered that Article 10 allows the subjection to control under the Convention of narcotics not covered by the Convention which have been shown to be liable to lead to addiction. This article has already been applied to eucodal, dicodide, dilaudide, and the esters (ether salts) of morphine.

The same question arises in the case of a new narcotic, acedicone, which is manufactured by a German firm from thebaine, one of the alkaloids of opium, but could also be prepared from dicodide, of which it is a diacetylated derivative. Its chemical name is acetylo-dimethylo-dihydro-thebaine. Although no established cases of addiction resulting from acedicone are yet known, it appears to be demonstrated that it is capable of taking the place of morphine with a morphomaniac, and consequently nourishing a morphomania. It may be concluded, therefore, that acedicone has the same noxious properties, so far as drug-addiction is concerned, as morphine, and should consequently be placed under control. The Committee of Experts made recommendations in this sense.

In consequence, however, of the objections of the German representative, who contended that the facts as known up to the present were not sufficient to justify an expression of opinion, the Committee of the Office decided to leave the question open. The Opium Commission took up the matter again, and, taking the view that, though the facts charged against acedicone may not be very numerous, they should nevertheless be considered sufficient to justify its subjection to control, decided by three votes to one to propose to you to go a step beyond the action of the Office and pronounce in favour of such control. In the course of the discussion it was observed, in reply to the objections of the German representative, that it was not desirable to foster the tendency of manufacturers to prepare new drugs as fast as the known drugs are made subject to control, that control does not mean prohibition, that acedicone (the sedative properties of which, more especially in the case of coughs, appear to be proved) can in future be employed on the same footing as so many other drugs which can only be dispensed on a medical prescription, and that there is consequently no reason to apprehend that the subjection to control of this and similar products may prevent genuine scientific research. It may also be observed that the provisions of Article 10 are not compulsory; it merely makes provision for a recommendation to Governments, which are free to act on such recommendation or not as they please. It seems scarcely necessary to add that, the Opium Commissions of the Office international and of the Health Committee being composed largely of the same persons, the decision which we propose to you to take, though it differs from the view of the Committee of the Office, does not in any sense involve a dispute.

#### SUMMARY OF THE COMMISSION'S PROPOSALS.

1. To exempt under Article 8 of the Geneva Convention the preparations in the British list and a number of the preparations in the Siamese list, and to leave the question open in the case of the three preparations in the new German list.

2. To exempt under Article 8 the "oculets" and solutions of morphine (or eucodal) with atropine, with a maximum of 2 per cent of morphine or eucodal salts and a minimum of 0.05 per cent of atropine salts, such solutions to be delivered only in phials of 1.1 c.c.; and to decline to exempt under this article dry solutions (pastilles, tablets, etc.) of morphine (or eucodal) with atropine, and also any preparations of morphine (or eucodal) with scopolamine.

3. To recommend Governments to place under control the drug acedicone (acetylo-dimethylo-dihydro-thebaine).

We propose that the Health Committee approve the following resolution :

" The Health Committee,

" Having considered the report of its Opium Commission on certain questions arising from the application of Articles 8 and 10 of the Geneva International Opium Convention, and the opinion given by the Permanent Committee of the Office international d'hygiène publique in virtue of those articles :

" (a) Adopts all the conclusions of the report of the Office international d'hygiène publique on the application of Article 8 to the preparations proposed by the Governments of Germany, Great Britain and Siam, as they appear in document C.H.892 ;

" (b) Decides, in virtue of Article 10 of the Convention, to inform the Council of the League of Nations that acedicone (acetylo-dimethylo-dihydro-thebaine) is liable to similar abuse and productive of similar ill-effects to the substances to which Chapter III of the International Opium Convention of 1925 applies, and recommends that the provisions of the said Convention should be applied to it ;

" (c) Decides to transmit to the Office international d'hygiène publique, for opinion and report, the list of preparations proposed for exemption under Article 8 by the Estonian Government (see document C.H.892).

ANNEX 13.

C.H.928.

REPORT OF THE COMMISSION ON THE REORGANISED NATIONAL  
QUARANTINE SERVICE FOR CHINA.

The Commission having considered that part of the general report on the Health-Organisation of China (document C.H.906) which deals with the survey of the quarantine services of ports and the proposals for reorganisation (document C.H.906 (a), (b), (c), (d), (e)), together with the summary (document C.H.906 (f)) and the Quarantine Regulations for the port of Shanghai, reports as follows :

1. The Commission desires, in the first place, to congratulate Dr. Park and also Dr. Heng-Liu, Minister of Health, and Dr. Wu Lien-teh, on the very complete and comprehensive documentation which has been placed before the Committee.
2. The Commission is glad to note the satisfactory commencement of the new quarantine service in the port of Shanghai, as communicated by Dr. Heng-Liu (document C.H.920).
3. The Commission has studied with much interest Dr. Park's expositions of
  - (a) The present equipment for port sanitary work in Shanghai ;
  - (b) The development, both in material and personnel, which the port authority proposes to secure ; and
  - (c) The principles on which he advises that port sanitary administration should be based, and, in particular, the new quarantine regulations on the subject prepared, after consultation with Dr. Park, by the Ministry of Health of the Chinese Republic.

The Commission proposes, according to the previous decisions of the Health Committee, to obtain the opinion of representatives of maritime navigation, designated by the Organisation for Communications and Transit of the League of Nations, before giving its final opinion on the matters mentioned. Nevertheless, the Commission considers there are certain matters entirely within their competence on which they may now make a few observations.

The chief of these is that they have noted with much satisfaction that the principles which it is proposed to follow, and the practice which is embodied in the new quarantine regulations, are in close conformity with the international principles and practice embodied in the International Sanitary Convention of 1926.

In addition, the following matters, elucidated in the report and in the discussion with Dr. Park, deserve mention at this stage :

(a) On the completion of the necessary equipment at the port of Shanghai, that port will, for the time being, be the only one on the Chinese littoral authorised to carry out for the purposes of the relevant articles of the International Sanitary Convention, 1926, deratisation of ships, and to issue the international certificates of deratisation and exemption from deratisation.

(b) It is understood that the quarantine service purposes, as soon as circumstances permit, to carry out medical inspection and other quarantine requirements on all ships arriving in Chinese ports from "foreign", but that they reserve the right, in normal times, to exempt from these requirements vessels on short and regular journeys from adjacent overseas ports.

(c) As regards the port of Shanghai, it is understood that the cost of establishing and maintaining the quarantine service will be borne by contributions received by that service by arrangement with the Minister of Finance from the Customs revenue of the port, subject, of course, to financial adjustments in respect of income received by the quarantine authority from dues and charges.

(d) As regards that part of the new quarantine regulations for Shanghai which deals with cholera, the Commission understands that it is not intended that bacteriological examinations for the detection of persons who may be carriers of the cholera vibrio, as envisaged in Article 36 (b) of the regulations, should be a routine proceeding.

(e) The Commission notes that the services contemplated in ports other than Shanghai will only come into operation at a later period ; but, in the case of Canton, it is of interest to observe that, in view of the intimate relation between that port and Hong-Kong, it is already realised that special measures for co-operation between the two ports are desirable.



4. The Commission, in view of the necessity for conferring with the experts delegated by the Communications and Transit Organisation, would suggest that the Committee at its present session should express its great satisfaction at the manner in which Dr. Park's mission has been accomplished, and would submit to the Health Committee for its approval the following resolution :

“ The Health Committee,

“ Having considered the report prepared by Dr. Park on his survey of Chinese ports ;

“ Having heard the views of the Commission for Quarantine Measures in China which has studied the proposals contained in the report for the Reorganisation of the Quarantine Services of China, and the Regulations promulgated by the Minister of Health :

“ Approves the scheme proposed, with any modifications which may be made, after conferring with the experts delegated by the Communications and Transit Organisation ;

“ And requests the Medical Director to submit the scheme to the Chinese National Government.”

C.H./Malaria/149.

ANNEX 14.

REPORT BY DR. A. LUTRARIO, PRESIDENT *p.i.* OF THE  
MALARIA COMMISSION OF THE HEALTH COMMITTEE

Those members of the Commission who are also members of the Health Committee met under the chairmanship of Dr. A. Lutrario, to examine the progress of the work being done and to draw up the Commission's programme. The following proposals were submitted to the Health Committee :

(1) The appointment, within the Malaria Commission, now composed of fifty-five members, of a study commission of twenty members to examine the reports resulting from the problems studied. This commission could be divided into sub-commissions for the study of various problems of a special nature.

(2) The Commission was of opinion that the report, for the use of health administrations concerning the question of quinetum and secondary alkaloids should be prepared after obtaining the opinion of pharmacological experts and chemists on the preparation and standardisation of quinetums, the methods of controlling these products, and other aspects of the problem from an agricultural, technical or economic, point of view.

This sub-commission should be composed of two members of the Health Committee who are also members of the Commission on Quinine (Professor Ascoli and Professor Pittaluga), as well as of the following expert members by whom this question has been studied : Professor Marchoux, Professor Giemsa, Professor Schüffner, Professor Martinotti, Professor Grothoof, Professor Dale or Professor Henry, and Professor Zünz.

The report of this sub-commission, after it had been examined by the Commission on Quinine, one member of which would act as Rapporteur, should be submitted to the Health Committee at its next session.

(3) The Commission was of opinion that preparatory work with a view to holding a conference on quinine should be considered. To this end, it requests the Secretariat to collect, through the intermediary of corresponding members, members of the Health Committee, health administrations, etc., all documentation in malarial countries which may provide data on the approximate number of malaria cases (statistics for the last ten years), the number treated, and the amount of quinine employed per annum during the last ten years, as well as the minimum quantity of quinine or quinetum that these countries could undertake to purchase for a period of from five to seven years.

The Customs service of importing countries could furnish very accurate information on the annual quantities imported.

(4) The Commission suggested to the Health Committee that a member of the latter and the Secretary of the Malaria Commission should have the task of replying to the invitation of the Kina Bureau and collecting information on the agricultural and economic aspects of the quinine question. The subsequent preparation of quinetum and the conditions relating to price should also be considered.

(5) The Commission noted the position in regard to the problems now being studied, and is of opinion that this work should continue.

Among these questions, that of the deltas was given attention by the Commission, which considers that it should devote a special session to this subject. The proposed tour in the deltas should be definitely arranged for next spring. If a member was prevented from attending, one of his collaborators could act as his substitute. Professor Pittaluga wished that, on this occasion, the research work done in the Netherlands should be examined on the spot.

(6) The Commission also noted and approved the report of Professor Swellengrebel on the anti-malaria campaign amongst Bulgarian refugees, which the author will submit to the Health Committee.

(7) The question of the "interchange" of malariologists of tropical countries and that of the study tours of the Commission will be dealt with along the lines of the President's speech to the Health Committee.

(8) The Commission noted the results obtained by the malaria courses and considered that they should be held again in 1931.

The Commission wishes to express its thanks and gratitude to the Directors of the theoretical courses and the field work, and to the members of the teaching staff, for the disinterested collaboration they are so good as to afford to the Commission in the organisation of these courses, and for the untiring efforts they make in order to secure complete success.

C.H.913.

ANNEX 15.

MEMORANDUM BY SIR GEORGE BUCHANAN ON THE POSITION  
OF THE INVESTIGATIONS CONCERNED WITH CANCER.

A Cancer Commission of the Health Committee, of which I had the honour of being President, was appointed in 1923 and reappointed in 1926. Up to 1927, the principal work of this Commission consisted in making serious endeavours to ascertain the different causes which produced the very notable difference in the mortality from cancer in certain, mainly European, countries. The countries in question all possessed national mortality statistics for a long series of past years, and there was no *prima facie* reason to consider any one of them to be more favourably placed than the others in regard to accurate diagnosis of cancer as a cause of morbidity or mortality. The sites chosen for study were the breast and uterus, organs for which, on the one hand, diagnosis of the cause of death is relatively easy, and, on the other hand, the mortality differences between the countries was most striking.

The enquiry was pursued by expert statistical analysis of massed figures and also by special sampling investigations organised by the Commission, and numerous useful monographs on different aspects of the question were obtained. When the enquiry was rounded off, in October 1927, by the summarising report (reference), there were both failures and successes to record—failures, in that every conceivable method of analysis open to the Commission and its distinguished experts had failed to produce any single clear-cut explanation of the divergencies in the national mortalities from cancer in the countries studied; successes, in that many plausible *a priori* explanations had been thoroughly tested and found wanting. The ground was cleared of all kinds of misconceptions about the effect of registration systems, age distribution, marital state, racial proclivity and the like—work which wanted doing, and could only have been secured by the special international expert methods of enquiry which were followed. And a further and not inconsiderable practical benefit resulted. The so-called "natural" duration of cancer in these sites was determined on a broad basis of observation, while the predominating importance of early diagnosis and early operative (or radiological) treatment was illustrated equally for every country; useful public action for the prevention of cancer of these sites, in present knowledge, consists almost wholly in facilitating this early diagnosis and treatment.

The Health Committee, in 1928, following the advice of the Cancer Commission itself, decided to regard the comparative enquiries as completed. For the time being they had reached an end-point with the general report of October 1927.

This position, I imagine, the present Health Committee will accept, always with the proviso that the resumption of these comparative studies may well be desirable later, perhaps with some new methods of approach, and, in any case, with the advantage of the facts which the Cancer Commission have already fully established and need not take up again.

Since 1928, the Cancer Commission itself, which comprised seven members of the Health Committee, has rarely had occasion to meet, as it was then decided to take up two quite different and very specialised lines of investigation, to be conducted through expert sub-commissions.

These two were occupational cancer and radiological treatment of uterine cancer.

### OCCUPATIONAL CANCER.

It seemed possible that, by working on international lines, some new and useful evidence could be obtained :

- (a) As to the occurrence of cancer in some occupations in some countries, and its absence from like occupations in other countries ;
- (b) Occurrence of new forms of occupational cancer hitherto unsuspected ; or
- (c) The occurrence of known forms of occupational cancer in places where it had been supposed that occupational cancer did not occur.

The Sub-Commission on this subject found the data at its disposal very incomplete, owing to the relative rarity of this condition, and certain statistical studies which were planned had to be dropped. The Sub-Commission, as such, has not met for some time, and the work under this head has consisted in the collection of reports on the occurrence and character of occupational cancer from different sources, notably those obtained by collaboration with the Hygiene Section of the International Labour Office, through Dr. Carozzi, and independently through Dr. Roussy and by Dr. Tomanek. These reports have been useful, and it would be well to continue them and secure that an analysis of them is submitted from time to time to the Health Committee, in addition to their circulation to the various correspondents or administrations which are interested. The Health Committee may consider that the immediate reappointment of an occupational cancer sub-commission is not necessary ; it may suffice for the present to continue collection of material in the way just indicated, in consultation with the designation of a Rapporteur on the subject to the Committee.

### RADIOLOGICAL TREATMENT.

The work of the Sub-Commission appointed on this subject is doubtless well known to the Committee. It is summarised in the printed report of June 1929 (document C.H.788) which—in English-speaking countries at least—has received much attention and been recognised as authoritative. In this report, the Commission of radiologists set out some very necessary general principles in regard to the use of radio-therapy in general. In addition, the way in which radio-therapy is applied to cancer of the uterus at Paris, Munich and Stockholm was explained ; and the necessity for standardising observations and records, including facts as to recurrence of the growth and length of survival after treatment, was demonstrated.

There emerged from this enquiry that, while Governments, hospitals and philanthropists are spending enormous sums on the purchase of radium and in the provision of other radiological treatment, no satisfactory way of assessing or comparing results of different radio-therapeutic methods can be found unless the principal radium and gynæcological institutes will agree to adopt (1) a standard nomenclature to describe the stages of the disease, (2) a standard method of case-recording, and (3) a satisfactory system of following up treated cases to ascertain their condition at least three years after treatment.

The recommendations of the Radiological Sub-Commission, endorsed by the Cancer Commission and the Health Committee, were quite explicit and authoritative on this point. The standard requirements have been laid down ; it is now necessary to promote their observance and in due course to collect the results and submit them to competent expert analysis. Without this sequel, the very considerable labour which the Committee has imposed on a number of distinguished and busy men would be wasted.

I have lately discussed with some of the members of the Radiological Sub-Commission the question whether similar studies, with a view to standard definitions, agreed forms of record, and analysis of results should be undertaken for cancer of other sites—cancer of the buccal cavity for example. The value of such an extension of our work is admitted, and there is need for it. But my colleagues consider, and I think this Committee will agree with them, that it would not be desirable to pursue this work for other sites of cancer until it has been made evident that the definitions, records, etc., laid down in the report on radiological treatment of cancer of the uterus are not only recognised theoretically, but, in practice, are being utilised in different countries ; and that the ultimate analysis of which I have just spoken will be a reality, much as is already the case with the League Syphilis Committee's case records. In other words, we have to be sure we have made good on the one site already chosen before we go on to others.

It would be well if this Committee, at the present session, would consider how this can best be done. We have already got some way; the special record books are available and being distributed in the United Kingdom and in Sweden, and the French record books are being printed. A detailed communication is now being sent out from the Health Section to administrations, institutes and individuals in a considerable number of countries to explain the method and secure their co-operation, and an endeavour is being made to arrange that some one person in each country will be charged with the distribution of the record books and will periodically report on their use. But the work requires also active surveillance and stimulus from the centre, which must be maintained.

It is already a year since the Radiological Sub-Commission's report was published, and the coming year will be the critical one in which to secure that the system is properly established and that the right and sufficient material will come to hand three years hence. It would hardly be practicable to ask the three experts specially responsible for the system of record—Dr. Heyman, Dr. Lacassagne and Dr. Voltz—to visit the different centres, collectively or individually. A simpler plan would be to arrange, on their advice, for visits by a suitable expert who knows the scheme thoroughly and would be able during the coming year to devote the necessary time to a series of visits to certain centres of primary importance, on a programme arranged with the Medical Director.

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On review of the above position, I venture to suggest to the Health Committee that the requirements of the cancer investigations can be met by:

(1) No general Cancer Commission to be appointed, or reappointed, for the present. The Health Section would, however, be requested to continue to deal with communications relating to cancer work already undertaken, and new suggestions recorded on any matter relating to cancer, and to report any question of importance to the Committee. A member of the Committee could be designated as its Rapporteur on cancer questions.

(2) The liaison with the Hygiene Section of the International Labour Office should be maintained and reports giving new knowledge of occupational cancer should be welcomed and appropriately circulated.

(3) The renomination of the Radiological Sub-Commission, or the nomination of a new Radiological Commission, may be desirable. But this is not a matter of urgency and need not be done at the present session. Our immediate objective, on radiology, is to secure the sufficient adoption of the scheme for the use of the standard records on uterine cancer above explained, and we are concentrating on this for the coming year. The Health Section would be invited to do the maximum possible for this purpose. The three experts who drew up the system may advantageously be constituted, if they are willing, as a small expert committee to advise when required on the practical results of the 1929 report (document C.H.788). The Rapporteur could be associated with them for this purpose. They should also be asked to make suggestions for visits to the centres which are of primary importance to the scheme, as suggested above.

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#### ANNEX 16.

### REPORT OF THE SUB-COMMITTEE FOR THE STUDY OF THE HUNGARIAN PROPOSAL CONCERNING INTERNATIONAL RECIPROCITY IN THE CARE OF THE SICK.

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The Assembly having forwarded to the Health Committee for study the proposal of the Hungarian Government for the study of international reciprocity in the care of the sick (document A.24.1930.III), a note by Dr. Kadar, Hungarian delegate to the Assembly, was laid before the Sub-Committee entrusted by the Health Committee with this study. The Sub-Committee has summed up the proposals as follows:

(1) International reciprocity should be secured by rendering aid to the sick and to women during confinement (the latter being included amongst the former), and, in consequence, to treat aliens and nationals alike in so far as the right to public aid is concerned.

(2) The cost of temporary aid, not exceeding a period of sixty days, would be chargeable to the country in which the alien falls ill.

(3) The cost of permanent aid would be charged to the sick person's own country. This country would, nevertheless, be bound to accept the repatriation of the sick person if he could be transported.

(4) A General Convention, which could be signed by all States prepared to guarantee to an alien who has fallen ill treatment equivalent to that given to nationals of the country in which he resides, should be drawn up on the basis of the Convention between Hungary and Bulgaria.

The discussion which took place demonstrated the following facts :

The question raises important questions of a humanitarian, economic and social nature. It is involved in the continual movement produced in each country, to a varying degree, by emigration or immigration. It is complicated by the fact that, at the present time, mass movements tend rather to go from East to West than in the contrary direction. The Sub-Committee, without wishing to neglect the highly humanitarian side of the problem, felt that it is nevertheless necessary to bear in mind the financial consequences of such a General Convention and the varying reactions produced in the various countries ;

On the other hand, as a good number of Conventions, in the form of either bilateral or multilateral agreements, aiming at the assistance of sick persons without means have been concluded between different States and are still in operation, the first point of discussion that arises is to discover how far the States using these Conventions find them satisfactory and what expenses have devolved upon them.

On the basis of the above points, the Sub-Committee has arrived at the following general conclusion, which it submits for the Health Committee's consideration.

The Sub-Committee considers that the Hungarian proposal is based on a humanitarian sentiment of great interest and is of a nature that demands the Health Committee's closest attention with a view to determining whether it is possible to give effect to this proposal.

To this end, and before engaging on a study of the question, the Sub-Committee considers that the operation of the bilateral or multilateral Conventions already concluded on this subject between various States might be investigated in order to pronounce on the necessity or otherwise of obtaining a general agreement.

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#### ANNEX 17.

### REPORT OF THE SUB-COMMITTEE FOR THE STUDY OF QUESTIONS RELATING TO THE PRICE OF RADIUM,

*Submitted by DR. HAMEL, Chairman.*

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The Sub-Committee has examined these questions at a session over which I presided and at which the following members of the Committee took part: M. Velghe, Sir George Buchanan and Dr. Jitta.

The following is the result of the deliberations of this Sub-Committee :

The Sub-Committee for the study of questions relating to the price of radium has received the letter of the President of the Reichsgesundheitsamt, under date of July 21st, 1930, suggesting that the Health Committee might examine the possibility of taking action to bring the price of radium within the reach of institutions requiring this agent for the treatment of cancer.

It has taken note of the resolution of the group of Upper and Lower Silesia of the Central Association of German Health Insurance Funds on this subject, communicated by the "Hauptverband" to the Medical Director on June 20th, 1930, as well as the memorandum of the Medical Director (document C.H.915).

Your Sub-Committee proposes to adjourn to a future session of the Health Committee the consideration of this aspect of the question, in view of the letter addressed by the Medical Director to the "Hauptverband", requesting further information.

On the other hand, the Sub-Committee considers that an attempt to estimate the medical requirements for radium in various countries would be of interest, and asks the Medical Director to report on this subject in consultation with the Rapporteur on questions of cancer and the directors of the three radium institutes whose report on radium treatment has been published by the Health Organisation.

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RESOLUTIONS ADOPTED AT THE SIXTEENTH SESSION OF THE  
HEALTH COMMITTEE

(Geneva, September 29th to October 7th, 1930).

The session opened on Monday, September 29th, at 11.30 a.m. This was the first meeting of the Committee as reconstituted under the terms of the Statutes of the Health Organisation for a period of three years from July 1st, 1930.

I.

ELECTION OF PRESIDENT.

Dr. Th. MADSEN was elected unanimously.

II.

CONSTITUTION OF THE BUREAU.

The Health Committee,

Decides to increase to three the number of its Vice-Presidents elected for a year (in addition to the President of the Permanent Committee of the Office international d'hygiène publique, who is Vice-President of the Health Committee *ex officio*), and elects the following three Vice-Presidents:

Dame Janet CAMPBELL,  
Professor CANTACUZÈNE,  
Dr. J. HENG-LIU.

III.

RECONSTITUTION OF THE HEALTH COMMITTEE.

The Health Committee,

Gives its approval to the manner in which the President and permanent Vice-President have discharged the mandate entrusted to them on the occasion of the re-appointment of the Health Committee. It decides to add to its membership, as expert, Professor José SCOSERIA, President of the Principal Council of Hygiene in Uruguay.

IV.

PROGRAMME OF WORK.

A.

The Health Committee,

Having taken note of the Memorandum of the President (document C.H.918) regarding the Health Organisation's programme, methods of work and the direction which its future activities would take,

Decides, on the basis of this Memorandum, to set up a certain number of commissions, reporting Committees and groups of experts, including:

1. *Permanent Standards Commission:*

Chairman: Dr. Th. MADSEN.

2. *Opium Commission:*

Chairman: Dr. CARRIÈRE.

3. *Malaria Commission:*

Chairman: Professor V. ASCOLI.

4. *Leprosy Commission:*

Chairman: Professor C. CHAGAS.

5. *Study of Whooping-cough, Diphtheria and Scarlet Fever:*

Entrusted to investigators, with the option of consulting other experts, after reference to the Bureau.

Investigators: { Whooping-cough: Professor J. BORDET.  
Diphtheria: Professor GORTER.  
Scarlet Fever: Professor R. DEBRÉ.

6. *Commission on Fumigation of Ships:*  
Chairman: Surgeon-General H. S. CUMMING.
7. *Rapporteur on Questions relating to Smallpox:*  
Professor Ricardo JORGE.
8. *Periodical Conferences of Directors of Schools of Hygiene:*  
Convened under the chairmanship of Professor FITZGERALD and in his absence under that of Professor Léon BERNARD for meetings limited to European Schools.
9. *Reporting Committee for Maternal Welfare and Hygiene of Infants and Children of pre-school age:*  
Chairman: Dame Janet CAMPBELL.
10. *Reporting Committee for Hygiene of Children of School Age and of Adolescence:*  
Programme of study to be prepared by the MEDICAL DIRECTOR, in collaboration with Professor TANDLER of Vienna.
11. *Reporting Committee on Questions relating to the Control of Tuberculosis:*  
Chairman: Professor Léon BERNARD.
12. *Reporting Committee on Questions relating to Venereal Diseases:*  
Chairman: Professor JADASSOHN.
13. *Reporting Committees on Cancer, Rheumatism and Heart Diseases:*  
Chairman: Sir George BUCHANAN, who will draw up a list of collaborators, after consultation with the Bureau.
14. *Reporting Committee for the Study of Health Centres:*  
Chairman: Dr. CHODZKO.
15. *Reporting Committee for the Study of the Rôle of Local Authorities in the Administration of Medical Care:*  
Chairman: M. VELGHE, who will draw up a programme of study and, after consultation with the Bureau, suggest a list of collaborators.
16. *Joint Commission on Public Health Insurance:*  
Chairman: Sir George NEWMAN.  
To retain its present membership including Sub-Commissions.
17. *Study of Medical Education:*  
Entrusted to the PRESIDENT who, with the MEDICAL DIRECTOR, will consult various experts on the subject of establishing a plan of study and presenting a report at the next session of the Health Committee, on the basis of the preliminary enquiries.
18. *Commission of Experts for the co-ordination of Studies on Human Trypanosomiasis:*  
Chairman: Sir Andrew BALFOUR.
19. *Studies on the Question of Nutrition:*  
The MEDICAL DIRECTOR will present a memorandum at the next session of the Committee. In the meantime, a special study of the Rice problem in the Far East will be undertaken, in consultation with the Eastern Bureau. Proposals regarding the appointment of a small study group will be presented at the next session.
20. *Expert Group for the Study of Physical Education:*  
Set up under the chairmanship of Professor OTTOLENGHI, who will make suggestions as to the membership.
21. *Sub-Commission for the Study of the Budget and Annual Report of the Eastern Bureau:*  
Chairman: Dr. J. JITTA.

B.

In regard to the President's proposal to call together the Medical Directors of the health services of Colonial Ministries, the Committee adopted the following resolution:

" The Health Committee,

" Bearing in mind the results obtained through the collaboration, under its auspices, of the heads of certain colonial medical services in the study of sleeping-sickness;

" Desiring to place the facilities of the Health Organisation of the League of Nations at the disposal of colonial medical services in order to ensure continuity in the studies regarding methods of combating those diseases particularly prevalent in colonial territories, as well as to improve the welfare of native populations:

" Decides to take the necessary steps to ascertain whether it might be expedient to hold a meeting, under the chairmanship of the President of the Health Committee, of Medical Directors of the Colonial Ministries of countries having possessions in Africa, as well as of the Public Health Administrations of other African countries, with a view to ascertaining in what way the Health Organisation might be of service to them in securing continuity of study in the questions referred to above, and to presenting, if necessary, proposals to the Health Committee regarding the particular problems the consideration of which would, in their opinion, be expedient."

C.

Upon a proposal made by a member of the Committee, that the same privileges should be granted to all members of the Committee, the following resolution, proposed by the Bureau, was adopted:

" The Health Committee,

" Having considered the question raised at its meeting on September 29th, 1930, concerning the position of the various categories of members of the Committee;

" Having ascertained that there is nothing in the Rules of Procedure to prevent the experts, whose appointment is provided for by Article 9 of those Rules, having the right to vote:

" Decides that these experts shall enjoy the same privileges as those granted to other members of the Committee."

V.

DECISIONS OF THE COUNCIL AND RESOLUTIONS OF THE ASSEMBLY.

1. *Creation of an International Centre for Advanced Health Studies: French Government's Proposal.*

The Health Committee presented a report to the Council (document C.589.1930.III) containing a letter which the French Government proposed to address to the Council, as well as a draft set of organic statutes which would accompany that letter.

The report submitted a first plan of organisation and activity, dealt with the composition of the teaching staff and the recruitment of students, and outlined a general programme of instruction bearing on general comparative hygiene, new contributions to hygiene and relevant sciences, and international sanitary co-operation.

2. *European Conference on Rural Hygiene: Spanish Government's Proposal.*

The Council, at its meeting on September 24th, 1930, decided to request the Health Committee to undertake a technical study of this question and to make proposals regarding the date of this Conference.

The Health Committee accordingly proposed that this Conference should be held on April 23rd, 1931. It also proposed that a Preparatory Commission, with the collaboration of a representative of the International Institute of Agriculture, should prepare the necessary documentation.

The Health Committee considered that, in order to obtain accurate results, the programme should be clear, concrete and limited to the following items, considered from the point of view of the interests of rural hygiene:

- (a) The guiding principles and methods to ensure an effective medical service in rural districts;
- (b) The most effective methods of organisation of health services in rural districts;
- (c) Sanitation of rural districts; the most effective and economical methods.



3. *International Reciprocity regarding Public Assistance in the Treatment of the Sick: Proposal of the Hungarian Delegation to the Assembly.*

The Health Committee examined the question transmitted to it by the Assembly as set out in document A.24.1930.III. It noted that, in any event, the Committee could not be called upon to draw up an international convention on this subject; its task was limited to advising the Assembly upon the desirability of a convention of this character. It was of opinion that the matter raised important questions of a humanitarian, economic and social nature, and that it involved also questions of emigration and immigration.

Moreover, there already exist on this subject numerous Conventions, usually bilateral. In these circumstances, the Health Committee considered that it was necessary, in the first place, to study the Conventions already existing and the possible repercussions which a general convention would have. It decided to request a Sub-Committee to undertake this study and to present a report to the next session.

VI.

LIAISON WITH THE PUBLIC HEALTH ADMINISTRATIONS OF VARIOUS COUNTRIES.

(a) *Collaboration with the National Government of the Republic of China: Re-organisation of Port Health Services.*

The Commission entrusted by the Health Committee with the study of quarantine measures in China had before it Dr. Park's report on the mission which he was given by the Health Committee at its fifteenth session. On the proposal of that Commission, the following resolution was adopted:

" The Health Committee,

" Having considered the report presented by Dr. Park on his survey of Chinese ports;

" Having heard the views of the Commission for Quarantine Measures in China, which has studied the proposals contained in the report and the Regulations promulgated by the Minister of Health of the National Government of China:

" Approves the scheme proposed, subject to any modifications which the Quarantine Commission is hereby authorised to make, if necessary, after conferring with the experts delegated by the Communications and Transit Organisation;

" And requests the Medical Director to take the steps necessary to submit the scheme to the Chinese National Government. "

(b) *Collaboration with the Greek Government.*

The Health Committee,

Having heard a statement made by the Under-Secretary of State for Health of the Greek Government:

Takes note of the report by M. Pallis, Secretary-General of the Greek Ministry of Health, on the progress made in carrying into effect the plan of re-organisation of the public health services, as well as of a memorandum by Dr. Norman White regarding the programme of the Athens School of Hygiene, which has been discussed with the Commission of Directors of Schools of Hygiene.

(c) *Collaboration with the Bolivian Government.*

The Health Committee heard an account by Dr. Mackenzie of his visit to Bolivia with Dr. Pascua. The object of the visit was to confer with the authorities in connection with the plan of collaboration requested by the Bolivian Government. The Committee noted that a Bolivian Medical Officer, who had been nominated as Director-General of the new public health services, was shortly to arrive in Europe. The following resolution was adopted:

" The Health Committee,

" Decides to place at the disposal of the Bolivian authorities the facilities of its system of liaison with health administrations, and requests its Bureau to proceed with the study of the programme of collaboration, in consultation with the Director-General of Health of Bolivia."

(d) *Enquiry into Health Conditions in the Pacific Islands.*

Having heard from Dr. Hermant an account of the mission to the Pacific Islands, and having considered the directions which further action might take, the Health Committee decided that:

" (1) The question of an entomological survey in Melanesia, with special reference to malaria and filariasis, should be referred to the Malaria Commission and that, if possible, the survey should be made in the coming year;

" (2) Facilities for 'interchange' should, as far as is practicable, be afforded to medical officers of the Pacific Islands, notably in connection with Congresses of the Far Eastern Association of Tropical Medicine and with a general study-tour in the Pacific region,

" (3) Questions concerning the relationship between syphilis and yaws, arising out of the report of the Mission, should be referred for consideration and report to the reporting Committee on questions relating to venereal diseases."

(e) *Enquiry into Infant Mortality in Latin America.*

The Health Committee,

Having listened to an account by Professor Debré of the mission which he had carried out in Latin America on the occasion of the Conference of Latin American Experts on Infant Mortality (Lima, July 13, 14 and 15, 1930):

Takes note of the results obtained and will be pleased to place its technical services, as far as possible, at the disposal of those countries which may desire to use them in the pursuance of these studies.

## VII.

### REPORT OF THE MALARIA COMMISSION: STUDIES OF ITS SPECIAL SUB-COMMISSION IN INDIA: RECOMMENDATIONS ADOPTED AT THE SESSION HELD AT ALGIERS, MAY 25TH, 1930.

The report of the Special Sub-Commission of the Malaria Commission (document C.H./Mal./147) which, on the invitation of the Government of India, visited that country in 1929, was considered by the Health Committee, together with a number of proposals referred to in the report of the Medical Director (document C.H.891), as well as the report of the Chairman of the Commission (document C.H.901) concerning its work in general.

#### A.

" The Health Committee,

" Accepts the report of the Malaria Commission on its study tour in India, and

" Submits this report to the Council of the League of Nations, which will doubtless wish to communicate it to the Government of India."

#### B.

" The Health Committee,

" Having heard Professor Swellengrebel's statement regarding malaria amongst the refugees in the Bourgas district (Bulgaria) (see document C.H.899), as well as the particulars supplied by the Medical Director concerning the Finance Committee's decisions submitted to the Council:

" Takes note of H.E. M. Molloff's declarations, made before the Council on September 24th, to the effect that the Bulgarian Government will secure the continuation of the anti-malarial measures now in force.

" The technical experience of the League of Nations Malaria Commission remains at the disposal of the Bulgarian Government."

#### C.

" The Health Committee,

" Approves the report of the Chairman of the Malaria Commission and the programme of work contained therein (document C.H.901)."

## VIII.

### LEPROSY.

The Health Committee,

Having received the report of Dr. Burnet, the Secretary of the Leprosy Commission (documents C.H.887 and 887(a)):

Decides to submit this report, and particularly the programme of future work, to a meeting of the Leprosy Commission, which might with advantage be held at Bangkok during the Congress of the Far-Eastern Association of Tropical Medicine;

Notes the observations of the Medical Director relating to a programme of international centres of study at Rio de Janeiro and Tokio, and requests the Leprosy Commission to study this matter in detail.

IX.

REPORT OF THE MEDICAL DIRECTOR.

The Health Committee,

Approves the report of the Medical Director on the work of the Health Organisation since the fifteenth session of the Committee;

Takes note of the explanations furnished by its President concerning the work on standardisation of sera, sero-diagnosis of syphilis and standardisation of blood-groups;

Decides that these activities should be continued and requests the Medical Director to give as wide publicity as possible to the results already obtained;

Requests the Permanent Standards Commission to study the possibility of standardising vitamins and, in particular, Vitamin D.

X.

REPORTS OF THE CONFERENCES OF DIRECTORS OF SCHOOLS OF HYGIENE, HELD AT PARIS ON MAY 20TH AND DRESDEN, JULY 14TH, 1930.

The Health Committee,

Having noted the reports on the proceedings of the Conferences of Directors of Schools of Hygiene held in Paris in May 1930 and Dresden in July 1930,

Adopts the recommendations of the Dresden Conference;

Decides, on the proposal of its President, that it is desirable to hold periodical conferences of the Directors of Schools of Hygiene;

Accepts with pleasure Professor Pittaluga's invitation to hold the next Conference at the time of the inauguration of the new School of Hygiene at Madrid; and

Requests the Medical Director to collect information regarding the terms and conditions of the appointments held by public health workers in different countries, in order to assist the study of the proposal made by Professor Miyajima regarding the recruitment of public health personnel.

XI.

OPIUM: APPLICATION OF ARTICLES 8 AND 10 OF THE INTERNATIONAL OPIUM CONVENTION OF GENEVA (FEBRUARY 19TH, 1925).

1. The agenda of the Health Committee included, on the one hand, certain questions regarding the application of Article 8 of the Geneva International Opium Convention to lists of preparations containing narcotic drugs proposed for exemption by the Governments of Germany, Great Britain and Siam, and, on the other hand, the application of Article 10 of the Convention to acedicone, a new narcotic drug derived from thebaine.

In conformity with the provisions of the Convention, the Health Committee requested the Office international d'Hygiène publique to give its opinion on these two questions and this opinion (see document C.H.892 and annex) served as a basis for its discussions.

2. In addition, a new list of preparations had been submitted to the Health Committee by the Government of Estonia for exemption from the provisions of the Convention by application of Article 8.

The Health Committee adopted the following resolution:

" The Health Committee,

" Having considered the report of its Opium Commission on certain questions arising from the application of Articles 8 and 10 of the Geneva International Opium Convention, and the opinion given by the Permanent Committee of the Office international d'Hygiène publique in virtue of these articles:

" (a) Adopts all the conclusions of the report of the Office international d'Hygiène publique on the application of Article 8 to the preparations proposed by the Governments of Germany, Great Britain and Siam, as they appear in document C.H.892;

" (b) Decides, in virtue of Article 10 of the Convention, to inform the Council of the League of Nations that acedicone (acetyl-dimethyl-dihydrothebaine) is liable to similar abuse and productive of similar ill-effects as the substances to which Chapter III of the International Opium Convention of 1925 applies, and recommends that the provisions of the said Convention should be applied to it;

" (c) Decides to transmit to the Office international d'Hygiène publique, for opinion and report, the list of preparations proposed for exemption under Article 8 by the Estonian Government (see document C.H.892). "

# INDEX

## ABBREVIATIONS.

Cttee	=	Committee
Conf.	=	Conference
Govt.	=	Government
I.L.O.	=	International Labour Office
Int.	=	International
Memo.	=	Memorandum
Prof.	=	Professor
Prov.	=	Provisional
Resol.	=	Resolution
Sub-Cttee.	=	Sub-Committee

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