

IAMR Report No. 4/1966

MANPOWER SURVEY
(HEALTH & MEDICAL)

DEVELOPMENT OF
NURSING EDUCATION
IN INDIA

Applied Manpower Research
Estate, Ring Road, New Delhi-1.

and

National Institute of Health Administration and Education
Patiala House, New Delhi-1.

SEPTEMBER 1966

The Institute of Applied Manpower Research was set up in 1962 by the Government of India to conduct research on problems of manpower planning. The main objects of the Institute are:-

- To advance knowledge about the nature, characteristics and utilisation of the human resources in India.
- To provide a broad perspective of requirements of trained manpower for economic development in different fields with due regard to the probable impact of technological changes on the ~~of employment.~~

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FOREWORD

This Working Paper sets out the results of one of a series of studies forming part of the Health and Medical Manpower Survey. This survey is a major project in this Institute in collaboration with the National Institute of Health Administration and Education.

2. In another paper on nursing (IAMR Report No. 3/1966—Stock of Nursing Personnel in India), an acceptable estimate of the stock of nursing personnel was arrived at. This paper deals with the growth of nursing education both in historical and analytical terms. The paper was first issued as a draft working paper in February, 1966 to interested persons/agencies for soliciting their comments and suggestions. Useful comments were received from the Indian Nursing Council, Regional Office for South East Asia of World Health Organisation and Directorate of Manpower of Ministry of Home Affairs. The paper was further reviewed by the Programme Sub-Committee in its meeting held on 19th September, 1966 which made a number of important suggestions. The paper has been revised in the light of the discussions and comments received.

3. The paper is based on published and unpublished data of the Indian Nursing Council. The Council's assistance is gratefully acknowledged.

4. The paper has been prepared by Shri Y. L. Ahuja of the Institute, under the guidance of Dr. S. Krishnaswamy Rao, Adviser to IAMR for the Health and Medical Manpower Survey, and Professor of Public Health Administration, National Institute of Health Administration and Education. Shri R. Ramalinga Iyer, a former Research Officer of the Institute, also made valuable suggestions. S/Shri Rukan Singh and S. B. Lal Saxena assisted in the collection and tabulation of data.

P. K. Das
DIRECTOR

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SECTION I

INTRODUCTION

1. Public health is fundamental for national progress, and at a time when the role of nursing is becoming increasingly important in raising the standards of public health, a study of the growth and development of nursing education in the country is bound to be of interest. This paper attempts to review the progress made in the field of nursing education so far and highlights the significant and emerging trends.

2. The present study concerns itself with all the levels of nursing education, namely, basic, post-basic and auxiliary. The basic level includes courses in general nursing, B.Sc. (Nursing), midwifery and health visitors whereas the auxiliary level consists of what is known as the "auxiliary nurse-midwifery course". Post-basic education is given to those who have completed basic-level courses in nursing and have acquired, in addition, some practical experience in that field. These post-basic courses are necessary for further professional preparation as in the case of medical profession, for positions involving greater technical competence and teaching or administrative responsibility.

3. In this paper data have been analysed on an all-India, zonal and State basis. The States and Union Territories covered under each zone are specified below:

- a. Central Zone:
 - (i) Madhya Pradesh
 - (ii) Uttar Pradesh

- b. Eastern Zone:
 - (i) Assam
 - (ii) Bihar
 - (iii) Nagaland
 - (iv) Orissa
 - (v) West Bengal
 - (vi) Manipur
 - (vii) Tripura

- c. Northern Zone:
 - (i) Jammu and Kashmir
 - (ii) Punjab
 - (iii) Rajasthan
 - (iv) Delhi
 - (v) Himachal Pradesh

- d. Southern Zone:
 - (i) Andhra Pradesh
 - (ii) Kerala
 - (iii) Madras
 - (iv) Mysore
 - (v) Pondicherry

- e. Western Zone:
 - (i) Gujarat
 - (ii) Maharashtra

4. This Report is not intended to be a historical record of the development of nursing education in India. The historical aspects of the development of nursing education is touched upon to the extent it has a bearing on the present stage of development and also for assessing the emerging pattern of development. It has also a bearing on the identification of different categories of nursing personnel in the stock position of such personnel in India.

SECTION II

HISTORICAL DEVELOPMENT OF NURSING EDUCATION

5. There is sufficient evidence in the historical records of ancient times to show that nursing was recognised as an essential component of medical treatment. In those days provision was made for the sick and attendants for them were employed long before the Christian era. These attendants were placed under the direction of skilled physicians and surgeons, amongst whom Charaka and Sushruta were the most advanced of their time.

6. The books on the 'Ayurveda' in eight parts cover the whole field of medical science with the inclusion also of nursing treatment. Sushruta defined the four feet of medicine, namely, the physician, the patient, the medicine and the nurse, upon which a cure must rest. Charaka also makes reference to the qualifications of a nurse who should, according to him, "possess knowledge of the manner of preparing drugs or of compounding them, cleverness, devotedness to the patients, purity of mind and body" etc.

7. Later, the famous Buddhist King, Ashoka, established a large number of hospitals in the 3rd century B. C. In one of the records following an account of the buildings which were used for the sick, it is written:—

"After this should be secured a body of attendants of good behaviour, distinguished for purity and cleanliness of habits, possessed of cleverness and skill, endued with kindness, competent to cook food and curries, clever in rubbing or pressing the limbs, raising a patient or helping him to walk, well-skilled in making or cleaning beds, able to compound drugs, always ready, patient and skilfull to wait upon who is ailing, and never unwilling to do what is commanded by the Physician"¹.

8. It is quite evident that even in the distant ages, a nursing attendant was a person from whom much was expected. As such it is difficult to understand how in later years the profession came to be looked upon with considerable disfavour in India.

¹ Indian Medical Review, 1938, pp. 169-70.

9. The next mention of the establishment of hospitals is in connection with the needs of the British Army in India. The establishment of Madras General Hospital is an example. On November 10, 1664 the Council of Fort St. George wrote to the Agent, Sir Edward Winter: "Fresh soldiers who came forth this year taking up their habitation in the black wind in the hall, fell sick. We have thought it very convenient that they might have a house on purpose for them, and people appointed to look after them, and see that nothing comes into them, neither of meat nor drink, except what the Doctor alloweth".² Nothing is known about the capabilities of those who were appointed as attendants. Most probably fellow-soldiers were seconded for this purpose for a time, as this was found to be an established practice when the first Nursing Sisters were sent out for Military Hospitals. However, the fact that they were carrying out the orders of the "Doctors" puts them in the category of "Nurses".

10. There was a long gap of many years until the name of Florence Nightingale, famous as "The Lady with the Lamp", became known all over the world for introducing several reforms in army nursing during the Crimean War in the year 1854. She laid the foundation of modern nursing as we know it today. The Royal Commission on Sanitation on the Health of the Army in India, which was appointed in 1859, was also largely a result of her efforts.

11. During this period, nursing in military hospitals was almost non-existent. Although the establishment of some of the hospitals with minimal facilities dates back to 1664, but it was not until 21st Feb., 1888 that Nursing Sisters were sent out by the Government for organising nursing in military hospitals. The foundation of the Indian Army Nursing Service was laid on 28th March, 1888 when ten fully qualified certificated nurses arrived in Bombay.

12. The first steps to organise nursing education were taken in India in the year 1854 when a school for the training of midwives was opened at the Lying-in-Hospital, Madras. The certificate granted to those who completed the training was a diploma in midwifery; if a candidate failed to obtain the diploma in midwifery, she was granted a certificate in sick-nursing. However, as the training in sick nursing was not upto the mark, it was dropped and an attempt was made to organise the training of

2. Ibid, p. 170.

nurses. A scheme for the training of six nurses at the Government General Hospital was sanctioned by the Govt. of Madras in the year 1871. The Government of Madras also sanctioned the recruitment of a Lady Superintendent and four trained nurses from England for starting the School of Nursing. This school started on July 1, 1871 with six diploma-midwives to take the course in general nursing. There were only six probationers in the beginning who had very short periods of training, ranging from three to six months. Later on, six trained nurses were appointed, together with six probationers.

13. In the year 1885, Queen Victoria requested Lady Dufferin, the wife of newly appointed Governor General of India before leaving England, to do something for providing medical aid to the women of India. As a result the "Countess of Dufferin's Fund" was started. This was the first step of its kind for establishing medical relief for the women of India. The earliest training school for nurses and midwives financed by the Countess of Dufferin's Funds was started at the Cama Hospital, Bombay in the year 1886.

14. By the beginning of this century, a number of schools were established throughout India, mainly in the Presidencies of Madras, Bombay and Bengal. The system of training was in keeping with that in the western countries at that time. However, for many years it was felt that the right type of material for the training of nurses was not forthcoming from educated Indian girls on account of socio-religious customs which restrict Indian young women to the home. Thus it was difficult to get enough young women with an adequate standard of education and this resulted in many poor schools and a few good ones. In the early stages only European and Anglo-Indian girls came forward for training for the nursing profession. For a number of years only Christian girls were available for the nursing career. Other communities looked upon nursing with disfavour and would not allow their women-folk to join its ranks. The situation has changed considerably since and nursing has begun to attract to its fold larger numbers with better educational preparation. This may be supported not only by the increasing number of applicants offering themselves for training in nursing but also by improvement in the educational standards of applicants as can be seen from the Table 1.

TABLE 1

Number of Applications Received by Nursing Institutions
from 1959 to 1964

Name of the Course	YEAR					
	1959	1960	1961	1962	1963	1964
1	2	3	4	5	6	7
General Nursing	16,710	18,428	20,130	29,235	30,643	32,410
Midwifery	4,587	4,189	3,450	4,550	5,000	5,200
Auxiliary Nurse- Midwifery	8,564	9,070	10,063	16,330	18,500	20,493
Health Visitors	2,634	3,019	3,217	3,300	4,000	4,200

Source: Indian Nursing Council.

Note: These figures do not include information in respect of all the training schools.

TABLE 2

Educational Standard of Students for
General Nursing Course

Educational Standard	YEAR					
	1959	1960	1961	1962	1963	1964
1	2	3	4	5	6	7
I. Number of those who had passed Intermediate or Higher Examinations	176 (1.8)	219 (2.1)	268 (2.3)	473 (3.6)	384 (2.5)	634 (3.6)
II. Number of those who had passed Higher Secondary or Senior Cambridge examination	516 (5.4)	1,417 (13.8)	1,279 (11.2)	1,303 (9.9)	1,660 (11.1)	3,050 (17.2)
III. Number of those who had passed Matriculation or S. S. L. C. Examination	7,279 (75.9)	7,158 (69.6)	8,438 (73.8)	9,699 (73.5)	11,543 (76.5)	12,271 (69.4)
IV. Number of Non-Matriculates or Matric failed.	1,625 (16.9)	1,496 (14.5)	1,448 (12.7)	1,721 (13.0)	1,497 (9.9)	1,739 (9.8)
Total Number of Students	9,596 (100.0)	10,290 (100.0)	11,433 (100.0)	13,196 (100.0)	15,084 (100.0)	17,694 (100.0)

Source: Indian Nursing Council.

Note: 1. Figures in brackets are percentages to column totals.

2. Matriculation or its equivalent is the minimum educational requirement for training in general nursing.

15. It is evident from Table 1 that the number of applications received by the Nursing Schools nearly doubled for General Nursing during 1959-64 from 16, 710 in 1959 to 32, 410 in 1964 and more than doubled for Auxiliary Nurse-Midwifery from 8, 564 in 1959 to 20, 493 in 1964. In other training courses also there were substantial increases. It will be seen from Table 2 that in 1964, about 21% of the students had qualifications higher than matriculation, as against 7% in 1959 and that the number below matriculation standard decreased from 16.9% to 9.8% over the same period.

16. The First World War opened another field for nursing, namely, Indian Military Nursing. This as well as the expanding role of nurses in public health necessitated the setting up of the Lady Reading Health School in the year 1918. Training for male nurses also commenced during the early years of this century.

17. The Trained Nurses Association of India came into existence in the year 1908. It started publishing a journal from the year 1910, thus providing an opportunity to nursing personnel to share and pool their views and experiences in so far as nursing was concerned. In the year 1909, the Bombay Nursing Association was formed to obtain a uniform standard of training schools, and examinations, and until the constitution of the Bombay Nursing Council in 1935, this Association was responsible for the inspection and recognition of training schools, prescribing the curriculum, conduct of examinations and registration of nurses and midwives. In the year 1926, the first Nurses Registration Act was passed in Madras and by 1939, Nursing Councils were established in all the provinces of India except Assam.

18. Thus during the period 1920-39, there was considerable development in nursing education. Training of nurses, midwives and health visitors became more standardised. Training schools were established in all the provinces and also in many of the Indian States. Various grades of training for nurses, midwives and health visitors were also established. For example, the course in general nursing has been of three years' duration since the early years of this century but two standards were established in many of the States. These two standards are known as Senior or "A" Grade and Junior or "B" Grade. This grading applies both to men and women nurses. The basic difference between the two courses lay in the educational standard of students and the medium of instruction. The "A" Grade course was given in English while the "B" Grade course was given in the local language.

19. There was similar grading for midwives, but in their case the duration of the course was raised from six months to one year for trained nurses and from 18 months to 2 years for others. The duration of the course was also raised from 12 months to 18 months for health visitors but a certificate in midwifery was a pre-requisite in all cases. An exemption of three months from the training period was given to candidates who were qualified nurses.

20. The period 1920-40 was one in which many developments in nursing education were taking place abroad and nurses in India were also aspiring towards a wider scope for nursing and opportunities for higher education. As there were no facilities for advanced study in India, a number of Indian nurses went to England for courses in Nursing Education.

21. In the 1930's there was a strong movement for giving further training to experienced Indian Nurses to prepare them for the responsibility of Sister Tutors and in Hospital Administration. There was a great shortage of teachers in the training schools throughout the country. For many years, the task of teaching student nurses had to be performed by Nursing Superintendents and Sisters who already had much more than a full-time job. The facilities for post-graduate training were extremely limited, largely owing to financial considerations. In 1934, there was only one scholarship known as "Florence Nightingale Scholarship" which enabled an Indian nurse to take either the Hospital Administration or the Sister-Tutor Course at the Royal College of Nursing, London. These inadequacies were voiced at a conference of the Trained Nurses' Association of India held in Delhi in 1941, which urged the establishment of a post-graduate College of Nursing.

22. As a consequence of the efforts made by the Trained Nurses Association of India, the School of Nursing Administration was established in Delhi in April, 1943. However, owing to the urgent need for staff in the military hospitals, the nurses who were admitted could only be given a short intensive course. In conjunction with the School, the Government of India also sponsored a one-year Sister-Tutor Course for civilian nurses.

23. Subsequent developments were influenced very greatly by the report of the Bhole Committee³, which was set up by the Government of India in 1946 under the chairmanship of Sir Joseph Bhole. The Bhole Committee, dealing with Professional Education, and in particular Nursing Education, expressed itself as follows:

3. Report of the Health Survey and Development Committee (Bhole Committee, 1946), Govt. of India, Ministry of Health, Vol. II, "Recommendations", P. 387.

"The nurses whose names are on the various registers differ greatly in their professional ability and their educational background. There are at present approximately 190 schools where training recognised by the Nursing Councils is undertaken, but these training schools are far from satisfying even the minimum requirements of modern training institutions. In most of them students are employed as un-paid nurses, working long hours with no adequate time for study. In that way in almost every hospital in India, the education of the nurse is sacrificed to the urgent demand of nursing service. Furthermore, in no hospital there is staff adequate either in numbers or experience to provide the necessary instruction and the supervision of training. An All-India Nursing Council, which we are recommending, elsewhere in this report, will ensure that the required standards of training are attained by all the training institutions in the country, and that student nurses are regarded as students and not as employees of the hospitals at which they are studying". Further the Committee stated, "The great need is to elaborate a satisfactory short-term policy. The long-term programme is so intimately bound up with post-war development in other spheres, particularly education, that it must await their collateral development. There is no doubt that the spread of educational facilities, better teaching and the introduction of compulsory education up to at least the high school standard will eventually attract large numbers to the profession. Meanwhile the immediate need is for a thorough overhaul of the existing training centres together with the establishment of other better designed and more adequately equipped".

24. The following recommendations ^{on} nursing education were made by the Committee: ⁴

A sufficient number of preliminary training schools should be established. These schools will give elementary instruction to students who wish to become nurses, midwives, public health nurses and hospital social workers. The basic preliminary course proposed by us for these institutions is

4. Ibid, Chapter XVIII, p. 388.

devised to instil into students a preventive approach to health problems from the very commencement. The nursing course can be made interesting only if it is correlated with existing educational backgrounds and linked to community and home conditions. The elementary course is so planned that it will provide those students, who do not proceed to the full professional course, with valuable experience immediately applicable in their own homes and villages.

Candidates should not be less than 17 years of age and the course should not be less than 14 weeks - 13 weeks for study and one week for examination. This permits of three sessions annually, allowing 10 weeks for transfers and admission of students and holidays for teaching staff. The approximate number of hours of tuition per week is 34, allowing for rest during one afternoon and a whole day in each week.

There should be two grades in the profession with corresponding types of training i. e. a junior grade and a senior grade. The entrance qualification for the junior course should be not less than a completed course of the middle school standard. This standard of entrance may be raised as the education of women in India progresses and this course ultimately abolished as soon as there can be one uniform course of training for the nursing profession. The minimum entrance qualification for the senior grade should be a completed course for matriculation, school leaving certificate, the junior Cambridge or their equivalent. Training should extend for three years while, if midwifery is included, four years should be adequate to prepare a nurse to assume any responsible post in the field of general nursing or of public health.

In addition to these two grades, it is proposed that university degree course in nursing should be established, wherever possible, and that post-graduate courses for nurses should be instituted in order to train selected nurses for assuming the more responsible duties of their profession. "Degrees in nursing are given by certain Canadian and American Universities and London University awards a Diploma in this subject. We consider it essential that such a degree course in nursing should be instituted as early as possible in India in order to provide

leaders for the nursing profession from among the more highly educated and cultured ladies. It is proposed that, as a first step, the School of Nursing Administration at Delhi, should be transformed into a College of Nursing. It is hoped that eventually the three provinces of Madras, Bombay and Bengal and the larger provinces will similarly develop their own Nursing Colleges". When those sent abroad for training return, it is hoped that a degree course may be instituted in association with these colleges of Nursing, so that there may be combined in one unit a model Preliminary School, a five-year degree course and advanced courses in Hospital Nursing Administration, in the Teaching of Nurses and of Public Health Supervisors.

Advanced courses for trained nurses in hospital administration, sister-tutor courses, courses for public health supervisors and others should be instituted as early as possible. At present in most of the Provinces there are no properly qualified teachers to conduct such courses or to conduct proper courses in public health nursing. We recommend that a suitable number of carefully selected Indian ladies should be sent abroad at an early date to study in Universities, such as London and Leeds in the United Kingdom, and Toronto and Nashville Tennessee in the North American continent, where courses of instruction are available. At least 36 scholarships should be given for this purpose every year for the next five years, and if the experiment is successful, the number of these scholarships should be increased.

The qualifying examination for nurses should be controlled by different Provincial Nursing Councils and Medical Examination Boards subject to the general supervision of standards by the All-India Nursing Council. There should be two examinations, an intermediate at the end of the preliminary period of twelve to eighteen months of training and a final at the completion of the course. The examinations may be held twice a year. While emphasis should undoubtedly be placed upon examinations as fit and higher test to ascertain the progress that the nurse has made, in the assessing of educational assets greater emphasis should be laid upon the adequacy of teaching centres, the facilities which they have at their disposal, the equipment they possess,

the number of nursing staff, the hours of work for pupil nurses, the qualifications of those engaged in training, and last, but by no means least, the qualifications, attainments and personality of the head of the Nurses Training Centre.

Midwifery training should be uniform for all nurses, the period of such training being one year for the fully certificated nurse, whether junior or senior.

25. Following the recommendation of Bhore Committee, a Committee comprising of nurses, doctors and members of the Delhi University faculty worked out a curriculum for a training course which would lead to the B. Sc. (Honours) degree of the University of Delhi. They decided upon a four-year course which would comprise theoretical teaching up to University standard, practical nursing experience in hospital wards and other departments, field-work in public health and midwifery. Thus in the year 1946, the School of Nursing Administration was upgraded into a 'College of Nursing' under the Government of India, Ministry of Health. In the same year, a degree programme was also started at the Christian Medical College, Vellore under the Board of Studies in Medicine, Madras University.

Post-Independence Development

26. The developments in the field of nursing education after 1947 were, however, more comprehensive and far-reaching. In the early years because of the varying level of medical services and of women's education there were variations in the standards of training given in different parts of the country. The Nurses Registration Acts which were enacted in one Province after another, from 1926 onwards served to bring about greater uniformity in the pattern of training and some standardisation in the training schools affiliated to each Council. However, it was only after the establishment of the Indian Nursing Council in 1949 that concerted efforts were made to bring about uniformity of training throughout the country. Thus, from the variety of courses which existed before 1947, careful planning has resulted in two main distinct categories, namely, nurse/midwife and the auxiliary nurse-midwife. Five more colleges of Nursing have been added to the two which existed prior to 1947. In 1964, there were 229 schools for General Nursing, 273 for Auxiliary Nurse-Midwives and 8 Colleges of Nursing. Eighteen centres for the training of Health Visitors also exist but the present trend is towards the replacement of the health visitors by the public health nurses.

27. Before Independence, the services of nurse-midwives and health visitors were more or less confined to hospitals in urban areas. In order to provide nursing care to the rural population, it was considered necessary to think of a category of nursing personnel who would be able to undertake simple nursing care in addition to midwifery in the rural areas. With this end in view, and also with the purpose of replacing various courses for junior grades in nursing and midwifery, the Indian Nursing Council formulated a syllabus for the training of Auxiliary Nurse-Midwives. The first course was started at St. Mary's Hospital, Tarn Taran, Punjab, in 1951 and by December, 1964, there were 273 courses in the country.

28. In 1953, the Government of India instituted a scheme for giving grants for the expansion of existing health schools and establishment of new schools. As a result, the number of training schools for health visitors has increased to 18. Prior to 1954, only qualified midwives were admitted to the Health Visitors course. In 1954, the Indian Nursing Council prescribed an "integrated course" combining the two parts so that overlapping was avoided and the period of training was shortened from three years to two-and-a-half years.

29. In 1959, the Health Survey and Planning Committee⁵ was set up by the Government of India to undertake a review of the developments that have taken place since the publication of the report of the Bhore Committee in 1946 with a view to formulating further health programmes for the country in the third and subsequent five-year plan periods. Some of the salient recommendations made by Mudaliar Committee on Nursing Education are listed below:

Grade of Nursing Personnel

So far as nurses are concerned, there should be three grades of nurses:

- (1) The basic nurse with 4 years' training including six months in midwifery and six months in Public Health;
- (2) The auxiliary-nurse-midwife having two years' training; and
- (3) The nurse with a degree.

5. Report of the Health Survey and Planning Committee (Mudaliar Committee, 1961).

At the same time, facilities should be available for the basic nurse to be able, under specified conditions, to get higher qualifications. Similarly the auxiliary nurse-midwife may be given opportunities under specified conditions to work for basic course of nursing after putting in 3 years' work.

Basic Qualifications for and duration of Nursing Courses

All students who are admitted in the general nursing course should have passed the school final or matriculation examination or an equivalent examination and should undergo training for a period of four years. At the end of the 3rd year there should be six months' training in Obstetrics and Gynaecology and six months in Public Health Orientation. The minimum period of training in midwifery should not be less than six months.

The candidates for the degree course will have a training for a period of four years after the Higher Secondary or Pre-University.

Those who have taken the degree in nursing must have a minimum period of three years of service in general nursing before they are given special duties or posted as specialists like sister-tutors etc.

Age of Admission

The age fixed by the Nursing Council for entering into the nursing profession, viz., 17 years can be relaxed to 16 in suitable cases, particularly in States where difficulties have been experienced in recruiting candidates at the age of 17.

Medium of Instruction

The language in which the candidates could be taught may be the languages which is the medium of instruction at the Secondary School, provided approved text books and competent teachers are available. But at the same time the medium of instruction through English should also continue for such as can benefit by such teaching. So far as candidates for the Degree course are concerned, English should be the medium of instruction.

Nurses Training Programme

The present practice of using nurse-pupils for doing all the routine duties in ...hospital and not concentrating on training and practical experience is not desirable. Specific duties should be allotted and emphasis should be given to the training programme rather than to the discharge of other incidental duties in the hospital.

Nursing Schools

All hospitals with a bed strength of 75 to 100 should be utilised for nurses training provided facilities are available there for surgical and medical nursing, and paediatric nursing.

Facilities to Nurse Trainees

Student nurses should not be subjected to too much of night duties in the hospitals concerned and they should have periodical rest.

Nursing School Advisory Committee

Each Nursing School should have a Nursing Advisory Committee which will be responsible for advising on the care to be taken of nurse probationers and on their health and welfare.

Budget of Nursing Schools

There should be a separate budget for the nursing school. This budget should include not only the expenditure to be incurred on the nursing probationers, but provision of audio-visual aids and library facilities on nursing subjects as well as general reading material, to help to get the nurses trained in the habits of studying.

Training of Auxiliary-Nurse-Midwives

For a long time to come, it will be necessary to have a second grade of training given to certain persons to fulfil certain duties of the nursing profession. It is for this purpose that the continuance and extension of the training of auxiliary nurse-midwives has been recommended.

Training of Midwives

As an interim measure, where a rapid development of excellent midwifery training may not be possible, the present system of training for midwives may be continued. These midwives should gradually replace the dais who are now being utilised at certain places.

Health Visitors vs. Public Health Nurses

At present the health visitors' training consists of an additional six months to one year to those who have qualified as midwives. Candidates are expected to have passed the matriculation examination. The present course of training of the health visitors has, however, not fully justified itself, considering the responsibility attached to a post of that description. The committee, therefore, felt that the time has come when health visitors should be recruited from the general basic nursing category, and there should be fresh thinking on the type of training given to such persons and their designation, bearing in mind that their essential duties are connected with the preventive aspect of medicine.

The committee, therefore, advocate that such persons should have a basic nursing qualification and one year's further training, which will include domiciliary visits and public health aspects of preventive medicine in communities. Such trained persons will be of the greatest assistance at all levels--district and taluk and even primary health centres. They should be called Public Health Nurses and should replace the present type of Health Visitors.

Post-graduate and Post-certificate training for Nurses and Auxiliary Nurse-Midwives

Any person who has been trained in one category should have an opportunity of being trained at the highest level, under certain conditions to be specified by the All India Nursing Council. Besides those nursing personnel, a large number of post-graduate courses will be required for a variety of purposes.

Appointment of Nurses to Higher Posts

The present practice of posting qualified Degree course nurses directly to responsible posts immediately after qualifying either as tutors or ward sisters or any of the higher categories will not be in

the interest of the nursing profession or of the general public. Promotion to posts of higher responsibility should be considered in the case of Degree Nurses and Basic Nurses only after practical experience of minimum of three and five years of experience, respectively, after qualifying.

In regard to those who have had midwifery training, while the Committee agreed that their services will be useful in many hospitals, all those who are posted to training centres or to maternity hospitals used as training centres, should have an additional six months, practical training in midwifery before they take up any responsible duties.

Male Nurses

Male nurses should be trained only for certain types of work, e. g., for mental hospitals, for work in the theatre, for Army Hospitals, Rehabilitation Centres, V. D. Clinics, but essentially nursing training should be given to women candidates who come to the nursing profession.

30. In October 1959, a two-year Master of Nursing Degree Course was started in the College of Nursing at Delhi. The School of Nursing, Trivandrum, became affiliated with the University of Kerala in 1960 and instituted a Diploma Course in Teaching and Administration in Nursing. Soon thereafter preparation was begun to upgrade this Course to a B. Sc. Programme and in 1962, with the assistance of the Rockefeller Foundation, a Pre-degree Course of one academic year was started to qualify certificate nurses with S.S.L.C. for admission to the University Course. In 1963, the School was upgraded into a College and the first batch of ten students was admitted to the Degree programme.

Aid from International Agencies

31. During the last few years, aid from international agencies has made a very valuable contribution to the Development of nursing education. This aid has been received in the form of fellowships and stipends, teaching and hospital equipment, and nursing teachers. Fellowship for study abroad have given nurses the opportunity to specialise in a particular branch or qualify for teaching or administrative positions. Stipends made available by UNICEF for the Public Health Nursing and Midwife Tutor Courses have not only enabled a number of nurses to take these courses, but have also

given the courses a good start by assuring a steady flow of students. Stipends for refresher courses have made it possible to bring together nurses from all parts of India and bring them up-to-date in their particular field of nursing. Such courses have also provided a means of evolving a more uniform pattern of nursing education.

32. WHO has made a significant contribution to the development of nursing education in India. In 1948 when planning for the rapid expansion of health services was under way the World Health Organisation formulated proposals to assist in the development of nursing education in India. In these programmes, WHO assisted the Central and State Governments in joint projects in nursing education. Assistance has been given in projects designed to prepare more and better teachers for the hospital schools. Studies designed to improve nursing curriculum have also been initiated. An early example of this type of assistance is the Calcutta Nursing Project which began in June, 1952. Four international nurses were provided who assisted basic schools in Calcutta to upgrade their general nursing and midwifery programmes.

33. Recent trends in nursing have indicated a growing awareness of the need to develop post-basic nursing education within the University. WHO is now assisting the States of Gujarat, Mysore, Madras and Punjab to develop post-basic programmes under the project post-basic Nursing Education. Through the project Refresher Courses for Nurses and in collaboration with UNICEF, WHO and the Government provide each year four short courses of one to two months' duration. In 1956 and 1958, WHO organised international seminars in Delhi. A third seminar was organised by the International Council of Nurses in 1960 in Delhi. These seminars have been a very stimulating and educative experience for the nursing teachers and administrators who participated in them.

34. WHO nurses have also been assigned to various projects like Malaria, Tuberculosis, Venereal Diseases, Maternity Child Health, Mental Health, Nursing Administration in different State Health Directorates and Nursing Education Centres. But their role in the Nursing Education Project has been particularly significant especially in the establishment of courses in public health nursing, psychiatric nursing and teaching midwifery and in the integration of public health in the basic courses.

35. Nurses assigned through T. C. M. programme (now U. S. A. I. D.) have helped to develop nursing education both in the States and at the Centre

Two teams are now helping the establishment of nursing colleges in the States of Andhra Pradesh and Rajasthan. Nurses assigned under the Colombo Plan have taken part in developing the teaching programme at the College of Nursing in Delhi.

36. The Indian Nursing Council is empowered to establish minimum educational standards which every school of nursing must meet. Since the need to keep these standards and regulations at a sufficiently high level is very important, the Indian Nursing Council requested WHO assistance to study and revise the curricula for the preparation of nurse/midwives. This work is now in progress. Where advanced educational programmes in nursing are not yet available in India, WHO has provided fellowships for Indian nurses to take advanced courses abroad. To date 48 Indian nurses have received WHO fellowships.

SECTION III
GROWTH OF NURSING INSTITUTIONS

37. This section deals with the growth of nursing institutions. The study covers only those training schools which are recognised by the Indian Nursing Council/State Nursing Councils for the purpose of imparting training for Nurses, Midwives, Auxiliary Nurse-Midwives and Health Visitors. Institutions offering facilities for Degree, Post-certificate and Post-graduate Courses in Nursing are also included here.

38. At the beginning of the present century, only a few schools giving training in nursing and midwifery were in existence. As the training of nurses and midwives started late, the number of training schools was comparatively small. During the period 1920-39, the training of nurses, midwives and health visitors became more standardised and training schools were established in all the Provinces of British India and also in many of the States⁶. As a consequence of this, 102 training schools were recognised during the period 1900-1940. Another 37 were added to this list during the period 1941-46. After independence and before the First Five Year Plan was formulated, 34 more training schools were recognised thus bringing the total number of recognised training schools to 175. Sixty-seven training schools were recognised during the First Plan period, and 150 new schools were added during the Second Plan period. The growth of training schools recognised during different periods is presented in Table 3.

TABLE 3
Recognised Nursing Institutions

Year of recognition of training school	No. of recognised Institutions	No. existing at the end of the period
Prior to 1900	2	2
1900-1940	102	104
1941-46	37	141
1947-50	34	175
1951-55 (First Plan)	67	242
1956-60 (Second Plan)	150	392
1961-1964	71	463
Year of recognition not available	16	479

Source: Records of Indian Nursing Council.

6, Adranvala, T.K. : 'Nursing in India', Swasth Hind, XIV World Health Assembly Souvenir, p.217, New Delhi.

39. It will be seen from Table 3 that in the half century preceding 1947 only 141 schools had been recognised, in the seventeen years after independence, 322 schools were recognised. The distribution of these institutions by zones/States is given in Table 4.

TABLE 4
Distribution of Recognised Nursing Institutions by
Zones/States, 1964

Zone/State	Number of recognised Institutions
1	2
a. <u>Central Zone</u>	<u>85</u>
Madhya Pradesh	50
Uttar Pradesh	35
b. <u>Eastern Zone</u>	<u>79</u>
Assam	27
Bihar	15
Orissa	12
West Bengal	21
Nagaland	1
N. E. F. A.	1
Manipur	1
Tripura	1
c. <u>Southern Zone</u>	<u>143</u>
Andhra Pradesh	52
Kerala	30
Madras	32
Mysore	28
Pondicherry	1
d. <u>Western Zone</u>	<u>92</u>
Gujarat	30
Maharashtra	61
Goa, Daman and Diu	1
e. <u>Northern Zone</u>	<u>80</u>
Jammu and Kashmir	4
Punjab	34
Rajasthan	25
Delhi	13
Himachal Pradesh	4
All India	<u>479</u>

40. The nature of training in the nursing schools depends upon the teaching and other facilities available. Thus all schools do not give the same courses of training. Therefore, it is necessary to categorise these schools according to the availability of courses. Table 5 gives the distribution of nursing schools in 1964 by type of courses. The classification given here is the one followed by the Indian Nursing Council.

TABLE 5

Number of recognised training schools for
each category during 1964

Category of Nursing Course	Number of recognised schools
(i) General Nursing	229
(ii) Junior ('B' Grade) Nursing	5
(iii) Men Nurses	52
(iv) Midwifery for Nurses	215
(v) Midwifery for other candidates	5
(vi) Auxiliary Nurse-Midwives	273
(vii) Health Visitors	18

Note: Institutions shown under (ii) and (iii) are also included in the number of schools for General Nursing.

41. However, for the sake of convenience in analysis these courses have been classified into four broad types as follows:

TABLE 6

Number of recognised training schools for
each broad category during 1964

Type of Nursing Course	Number of Recognised Schools
(i) General Nursing	229
(ii) Midwives	215
(iii) Auxiliary Nurse-Midwives	273
(iv) Health Visitors	18

Note: In respect of category (ii), it is assumed that Nursing Schools which are giving training in Midwifery (for other candidates) are also giving training in Midwifery (for Nurses).

Nursing Institutions by Type and States

42. Table 7 gives the distribution of nursing institutions by type of courses in the different zones and states. The table also gives the number of different types of nursing institutions per 5 million population. The distribution of schools of general nursing per 5 million population is equal in the north and west zones (3.4 - 3.7). In the south zone there were 2.9 schools for general nursing per 5 million population. Central and east zones have less schools as compared to the other three zones. The states of Bihar, Orissa, West Bengal and Uttar Pradesh have very few schools of general nursing as compared to their respective populations.

43. In respect of schools per midwifery training per 5 million population, the southern zone leads (3.3). The distribution of number per 5 million population is nearly equal in the north and west zones (2.6 - 2.9). The number of midwifery schools in the central and east zones is much less than half that in the other three zones. In Bihar, Orissa and West Bengal in the east zone, the number of institutions per 5 million population is less than 2. Similarly in Uttar Pradesh in the central zone and in Rajasthan in the north zone, the number of midwifery schools per 5 million population is less than 2. In the south zone, only Mysore lags behind very much in the number of midwifery schools.

44. West, south and north zones are also better provided with auxiliary nurse-midwifery schools as compared to central and east zones. In the central and east zones, the number of such schools is only nearly half that in the other three zones. Among the states, Bihar, Orissa and West Bengal in the east zone, Rajasthan and Delhi in the north zone and Madras and Mysore in the south zone have very few schools for training of auxiliary nurse-midwives as compared to other states.

TABLE 7

Nursing Institutions by Type and States, 1964

Zone/State	General Nursing	Midwifery	Auxiliary Nurse-Midwifery	Health Visitors
1	2	3	4	5
a. <u>Central Zone</u>	35(1.5)	31(1.4)	48(2.1)	4(0.2)
Madhya Pradesh	17(2.4)	14(2.0)	35(5.0)	1(0.1)
Uttar Pradesh	18(1.1)	17(1.1)	13(0.82)	3(0.2)
b. <u>Eastern Zone</u>	43(1.7)	44(1.8)	50(2.0)	2(0.1)
Assam	15(5.7)	17(6.5)	16(6.1)	-
Bihar	9(0.9)	6(0.6)	7(0.7)	1(0.1)
Orissa	6(1.6)	7(1.9)	8(2.1)	-
W. Bengal	11(1.4)	13(1.7)	16(2.1)	-
Nagaland	1(12.8)	1(12.8)	1(12.8)	-
N. E. F. A.	-	-	1(13.9)	-
Manipur	-	-	1(5.7)	-
Tripura	1(4.0)	-	1(4.0)	1(4.0)
c. <u>Southern Zone</u>	66(2.9)	79(3.3)	77(3.7)	4(0.2)
Andhra Pradesh	19(2.5)	26(3.4)	32(4.2)	2(0.3)
Kerala	12(3.3)	12(3.3)	15(4.1)	-
Madras	15(2.1)	28(3.9)	15(2.1)	1(0.1)
Mysore	19(3.7)	13(2.6)	15(2.9)	1(0.2)
Pondicherry	1(12.5)	-	-	-
d. <u>Western Zone</u>	49(3.7)	34(2.6)	60(4.5)	1(0.1)
Gujarat	12(2.7)	7(1.6)	24(5.3)	1(0.2)
Maharashtra	37(4.3)	27(3.1)	36(4.2)	-
e. <u>Northern Zone</u>	36(3.4)	27(2.5)	38(3.6)	7(0.7)
Jammu and Kashmir	1(1.3)	-	2(2.7)	1(1.3)

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1	2	3	4	5
Punjab	13(2.9)	13(2.9)	20(4.4)	2(0.4)
Rajasthan	10(2.3)	5(1.1)	11(2.5)	2(0.5)
Delhi	11(17.5)	8(12.7)	2(3.2)	1(1.6)
Himachal Pradesh	1(3.4)	1(3.4)	3(10.3)	1(3.4)
All-India	229(2.4)	215(2.3)	273(2.9)	18(0.2)

Note: Figures in brackets are the number of schools per 5 million population.

Institutions offering Degree, Post-certificate and Post-graduate Courses in Nursing

45. In all, there were 20 institutions in 1964 in which facilities for degree, post-certificate and post-graduate courses were available. Of these, 8 institutions have facilities for degree courses and 10 for post-certificate courses. There were two institutions namely the College of Nursing, New Delhi and Christian Medical College Hospital, Vellore which were providing facilities both for degree and post-certificate courses. The College of Nursing, New Delhi is also providing facilities for post-graduate course in Nursing leading to 'Master of Nursing' Degree. The statewise distribution of these institutions is given in Table 8.

TABLE 8

Institutions offering facilities for Degree and Post-certificate Courses in Nursing - 1964

State	Degree Courses	Degree and Post-certificate Courses	Post-certificate Courses	Total
1	2	3	4	5
Andhra Pradesh	1	-	-	1
Gujarat	-	-	1	1
Kerala	1	-	-	1
Madhya Pradesh	1	-	1	2
Madras	-	1	1	2
Maharashtra	3	-	2	5
Mysore	-	-	2	2
Punjab	1	-	-	1
Rajasthan	1	-	-	1
Uttar Pradesh	-	-	1	1
West Bengal	-	-	1	1
Delhi	-	1	1	2
All-India	8	2	10	20

Source: Indian Nursing Council.

46. Assam, Bihar, Jammu and Kashmir and all the Union Territories, excepting Delhi, have no institution for higher training in nursing. There is no institution offering degree course in the east zone. In the west zone, Maharashtra has 3 institutions whereas the other states namely Andhra, Kerala, Madhya Pradesh, Punjab and Rajasthan have only one institution each. Facilities for post-certificate training also vary very much from zone to zone. Even here central and east zones are poorly equipped. South zone has the maximum number of institutions of this type.

47. The number of institutions imparting post-certificate training in nursing should also be viewed in relation to the availability of qualified nurses. The number of institutions giving post-certificate training in nursing per 5,000 nurses has been worked out statewise and is presented in Table 9. Among the states, Mysore and Gujarat occupy the first and second positions in respect of facilities for post-certificate training in nursing in relation to the stock of nurses.

TABLE 9

Institutions giving Post-certificate training in Nursing

State	No. of Institutions	Number of institutions*per 5,000 nurses
1	2	3
Gujarat	1	3.5
Madhya Pradesh	1	2.5
Madras	2	1.5
Maharashtra	2	1.0
Mysore	2	3.8
Uttar Pradesh	1	1.5
West Bengal†	1	1.0
Delhi	2	15.8
All-India	12	1.3

*Some of these Institutions are all-India institutions and therefore cater to requirements outside the state as well. Figures in Col.3 do not differentiate between all-India and state Institutions.

SECTION IV

ENROLMENT IN NURSING INSTITUTIONS

48. This section is concerned with enrolment of students in nursing institutions at the all-India, zonal and state levels. Enrolment refers to the number of students on the rolls in all the years in a particular course at the specific point of time. The figures of enrolment have been collected from the Indian Nursing Council. The Indian Nursing Council collects this information through a structured questionnaire which it sends to all institutions training nurses, midwives, auxiliary nurse-midwives and health visitors. As the collection of ~~these~~ data through questionnaire dates back to the year 1953 only, the enrolment figures are available from this year. Enrolment of each of the four types of nursing personnel is dealt with separately below.

A. GENERAL NURSES

49. Enrolment figures for the general nursing course are set out in Table 10. The index of enrolment and mean annual growth rates are also given in the same table. It would appear that there has been continuous increase in the enrolment of students except in the year 1959 when there was a slight decline as compared to the enrolment of the previous year. By the end of the First and Second Five Year Plans, enrolment increased by 20% and 69% respectively. During the period 1953-64, enrolment figures of students has gone up by about three times. The mean annual growth rate has been obtained by dividing the difference in the enrolment figures for two given years by the average of the two enrolment figures.

Enrolment in General Nursing Schools by Zones/States

50. Enrolment in nursing schools by zones/states is presented for the year 1957* and for the years 1960-64. The indices of enrolment have also been calculated with base 1957=100 and are given in brackets. A glance at Table 11 will indicate that at the zonal level, the growth in the enrolment of students was more rapid in the north and west zones. The growth in the south zone was just equal to the growth at the all-India level. In the central and east zones, the growth was less than that in the other three zones and

* It was intended to give data for the year 1956, the first year of the Second Plan. However, in view of the non-availability of accurate statewise data for 1956, data for 1957 have been given.

TABLE 10Enrolment in General Nursing Schools, 1953-1964

Year	Enrolment	Index of Enrolment (1953=100)	Mean Annual Growth Rate
1953	6,100	100	10.0
1954	7,000	115	13.7
1955	7,333	120	4.6
1956	7,859	129	6.9
1957	8,701	143	10.2
1958	9,807	161	11.9
1959	9,596	157	-2.2
1960	10,290	169	6.9
1961	11,438	188	10.6
1962	13,196	216	14.3
1963	15,084	247	13.4
1964	16,694	274	10.1

TABLE 11

Enrolment in General Nursing Schools by Zones/States

Zones/States	1957	1960	1961	1962	1963	1964
1	2	3	4	5	6	7
a. Central Zone	1,113(100)	1,154(104)	1,290(116)	1,411(127)	1,402(126)	1,842(165)
Madhya Pradesh	450(100)	477(106)	564(125)	672(149)	627(139)	799(178)
Uttar Pradesh	663(100)	677(102)	726(110)	739(111)	775(117)	1,043(157)
b. Eastern Zone	1,946(100)	1,929(108)	2,094(108)	2,282(117)	2,400(123)	2,454(126)
Assam	396(100)	447(113)	541(137)	522(132)	529(134)	530(134)
Bihar	548(100)	476(87)	522(95)	585(107)	615(112)	642(117)
Orissa	123(100)	181(140)	229(186)	385(313)	364(296)	387(315)
West Bengal	879(100)	825(94)	802(91)	790(90)	861(98)	871(99)
Nagaland	-	-	-	-	18	14(78)
Tripura	-	-	-	-	13	10(77)
c. Southern Zone	2,699(100)	3,044(113)	3,183(118)	4,084(150)	4,735(175)	5,274(195)
Andhra Pradesh	1,131(100)	992(88)	932(82)	1,111(98)	1,070(95)	1,170(103)
Kerala	276(100)	379(137)	400(145)	383(139)	741(269)	949(344)
Madras	913(100)	1,123(123)	1,274(140)	1,522(167)	1,845(202)	1,915(210)
Mysore	379(100)	544(144)	540(143)	1,013(267)	1,016(268)	1,178(311)
Pondicherry	-	-	37(100)	55(149)	63(170)	62(168)
d. Western Zone	1,842(100)	2,645(144)	2,823(153)	3,211(174)	3,701(201)	4,062(221)
Gujarat	1,842(100)	2,645(144)	2,823(153)	3,211(174)	3,701(201)	4,062(221)
Maharashtra						
e. Northern Zone	1,101(100)	1,518(138)	2,048(186)	2,208(201)	2,846(258)	3,062(278)
Jammu and Kashmir	-	-	74(100)	81(109)	76(103)	64(86)
Punjab	430(100)	578(134)	575(134)	667(155)	812(189)	978(227)
Rajasthan	309(100)	490(159)	840(272)	854(276)	1,237(400)	1,256(406)
Delhi	352(100)	425(121)	528(150)	563(160)	672(191)	708(201)
Himachal Pradesh	10(100)	25(250)	31(310)	43(430)	49(490)	56(560)
All-India	8,701(100)	10,290(118)	11,438(131)	13,196(152)	15,084(173)	16,694(190)

Note: Figures in brackets are the indices of enrolment with base 1957=100.

also less than that at the all-India level. At the state level, enrolment has followed an increasing trend in almost all the states.

Mean Annual Growth Rate of Enrolment in General
Nursing Schools

51. North zone as a whole leads in the years 1961 and 1963 whereas in the year 1962, the south zone leads. In the central zone, the level of enrolment is just above the all-India level in 1961 and below the all-India level in 1962. In this zone, there is a sudden fall in the year 1963. This fall which is to the extent of 6.5% is attributable to the sudden decline in enrolment in the state of Madhya Pradesh. In this zone, there was a significant increase in the year 1964. At the state level the most phenomenal mean annual growth rate was in 1963 in Kerala followed by Mysore in the year 1962. The northern zone states of Rajasthan, Delhi and Himachal Pradesh show significant rise in the year 1961. Himachal Pradesh and Rajasthan also record significant rise in 1962 and 1963 respectively. In Orissa, there is remarkable annual growth in the year 1962 although the two following years indicate a steady position with a slight decline in 1963.

TABLE 12

Mean Annual Growth Rate of Enrolment in General Nursing
Schools by Zone/State

Zone/State	1961	1962	1963	1964
1	2	3	4	5
a. <u>Central Zone</u>	11.1	8.9	0.6	27.1
Madhya Pradesh	16.7	17.5	-6.5	24.1
Uttar Pradesh	7.0	1.8	4.8	29.7
b. <u>Eastern Zone</u>	8.2	8.6	5.0	2.2
Assam	19.0	-3.6	1.3	0.2
Bihar	9.2	11.4	5.0	4.3
Orissa	23.4	50.8	-5.6	6.1
West Bengal	-2.8	-1.5	8.6	1.2
Nagaland	-	-	-	-25.0
Tripura	-	-	-	-26.1

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1	2	3	4	5
c. <u>Southern Zone</u>	4.5	24.8	14.8	10.8
Andhra Pradesh	-6.2	17.5	-3.8	8.9
Kerala	5.4	-4.3	63.7	24.6
Madras	12.6	17.7	19.2	3.7
Mysore	-0.7	60.9	0.3	14.8
Pondicherry	-	39.1	1.4	-1.6
d. <u>Western Zone</u>	6.5	12.9	14.2	9.3
Gujarat	13.2	9.7	9.1	7.7
Maharashtra	4.6	13.8	15.6	9.7
e. <u>Northern Zone</u>	29.7	7.5	25.2	7.3
Jammu and Kashmir	-	9.1	-6.4	17.1
Punjab	-0.5	14.8	19.6	18.5
Rajasthan	52.6	1.7	36.7	1.5
Delhi	21.6	6.4	17.7	5.2
Himachal Pradesh	21.4	32.4	13.0	13.3
All-India	10.6	14.3	13.4	10.1

B. MIDWIVES

52. The enrolment for the midwifery course is set out in Table 13. It may be mentioned that at present there are two types of midwifery courses. One course is of short duration meant exclusively for those who have completed general nursing training and the other course is meant for those who have no background of nursing. However, the figures presented here include both the types. It will be observed from the

table that enrolment of midwifery students has been fluctuating. This is so because in many states, midwifery training is given only to qualified nurses and student health visitors. As such, the enrolment figures depend upon the qualified nurses who come forward for midwifery training. The other major factor responsible for these fluctuations is that as all women nurses take midwifery public health nursing, the present trend is towards organising the nursing and midwifery courses as a composite unit incorporating public health nursing practice in the urban and rural field. Moreover, training schools for other midwives, (that is, training schools for those who do not possess any nursing background), have been converted into schools for auxiliary nurse-midwives.*

Enrolment in Midwifery Schools by Zones/States

53. Table 14 which gives the enrolment in midwifery schools by zones/states for the years 1957 and 1960-64 shows that at the all-India level, the increase in the enrolment of students was not significant, even a decrease was recorded for 1961 as compared to 1957. Even though central zone has the least number of midwifery schools, it leads during 1960-62. Many variations can be seen at the state level.

Mean Annual Growth Rate

54. As pointed out earlier there are many fluctuations in the enrolment of midwifery students. The highest mean annual growth rate is in the north zone in the year 1962 followed by the central, south and east zones. Except in 1961, in the north zone, the other zones show a declining trend in 1961 and 1963. The same arguments hold for states also. However, the highest increase was in the northern zone states of Himachal Pradesh followed by Punjab in the year 1962. The highest fall in the mean annual growth rate was in the eastern zone state of West Bengal in 1961 and 1963, whereas Orissa indicated the highest increase in 1964.

* The number of midwifery training schools for candidates without any background of nursing decreased from 75 in 1961 to 5 in 1964.

TABLE 13Enrolment in Midwifery Schools, 1953-64

Year	Enrolment	Index of Enrolment (1953=100)	Mean Annual Growth Rate
1953	2,200	100	-
1954	2,800	127	24.0
1955	2,602	118	-7.3
1956	2,972	135	13.3
1957	2,805	128	-5.8
1958	2,626	119	-6.6
1959	3,096	141	16.4
1960	3,116	142	0.6
1961	2,752	125	-12.4
1962	2,721	124	-11.3
1963	2,896	132	6.2
1964	2,983	136	3.0

TABLE 14

Enrolment in Midwifery Schools by Zones/States

Zone/State	1957	1960	1961	1962	1963	1964
a. Central Zone	183 (100)	392 (214)	347(190)	505 (276)	400 (219)	377 (206)
Madhya Pradesh	64 (100)	169 (264)	147(230)	179 (280)	114 (178)	192 (300)
Uttar Pradesh	119 (100)	223 (187)	200(168)	326 (274)	286 (240)	185 (155)
b. Eastern Zone	538 (100)	525 (98)	375 (70)	455 (85)	332 (62)	477 (89)
Assam	131 (100)	60 (46)	87 (66)	96 (73)	72 (54)	120 (92)
Bihar	110 (100)	152 (138)	134 (122)	141 (128)	123 (112)	109 (99)
Orissa	14 (100)	24 (171)	42 (300)	25 (179)	46 (329)	115 (821)
West Bengal	283 (100)	289 (102)	112 (40)	193 (68)	85 (30)	126 (45)
Nagaland	-	-	-	-	1 (100)	-
Manipur	-	-	-	-	5 (100)	-
c. Southern Zone	1,414 (100)	1,367 (97)	1,185 (84)	1,465 (104)	1,260 (89)	1,067 (75)
Andhra Pradesh	381 (100)	269 (71)	264 (69)	375 (98)	278 (73)	328 (86)
Kerala	179 (100)	90 (50)	53 (30)	100 (56)	154 (86)	140 (78)
Madras	703 (100)	780 (111)	670 (95)	684 (97)	654 (93)	313 (45)
Mysore	151 (100)	228 (151)	198 (131)	306 (203)	174 (115)	273 (181)
Pondicherry	-	-	-	-	-	13 -
d. Western Zone	507 (100)	601 (119)	601 (119)	524 (103)	525 (103)	602 (115)
Gujarat)	507 (100)	601 (119)	601 (119)	524 (103)	525 (103)	602 (115)
Maharashtra)						
e. Northern Zone	163 (100)	231 (142)	244 (150)	412 (253)	379 (233)	460 (282)
Jammu and Kashmir	-	-	28 (100)	20 (71)	19 (71)	28 (100)
Punjab	70 (100)	122 (174)	102 (146)	196 (280)	167 (239)	122 (174)
Rajasthan	21 (100)	18 (86)	26 (124)	42 (200)	80 (381)	180 (857)
Delhi	66 (100)	87 (132)	86 (130)	148 (224)	106 (161)	124 (188)

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Zone/State	1957	1960	1961	1962	1963	1964
Himachal Pradesh	6 (100)	4(67)	2 (33)	6 (100)	7 (117)	6 (100)
All-India	2, 805 (100)	3, 116(111)	2, 752 (98)	3, 361 (120)	2, 896 (103)	2, 983(106)

Note: Figures in brackets are the indices of enrolment with base 1957 = 100.

TABLE 15

Mean Annual Growth Rate of Enrolment in Midwifery
Schools, 1961-64

Zone/State	1961	1962	1963	1964
a. <u>Central Zone</u>	-12.2	37.1	-23.2	-5.9
Madhya Pradesh	-13.9	19.6	-44.5	51.0
Uttar Pradesh	-10.9	48.3	-13.1	-42.8
b. <u>Eastern Zone</u>	-33.3	19.3	-31.3	35.8
Assam	40.0	9.9	-28.6	50.0
Bihar	-12.6	5.1	-13.6	-12.1
Orissa	54.5	-51.5	60.0	85.7
West Bengal	-88.5	53.3	-77.7	38.9
c. <u>Southern Zone</u>	-14.3	21.1	-15.1	-16.6
Andhra Pradesh	-1.9	34.8	-29.8	16.5
Kerala	-52.1	61.8	42.5	-9.5
Madras	-15.2	2.1	-4.5	-70.5
Mysore	-14.1	42.9	-55.0	44.3
d. <u>Western Zone</u>	0.0	-13.7	0.2	13.7
Gujarat	-35.9	12.2	4.1	-11.5
Maharashtra	7.4	-18.6	-0.7	18.3
e. <u>Northern Zone</u>	5.5	51.2	-8.4	19.3
Jammu and Kashmir	-	-33.3	-5.0	38.3
Punjab	-17.9	63.1	-16.0	-31.1
Rajasthan	36.4	50.0	62.3	76.9
Delhi	-1.1	52.9	-33.1	15.7
Himachal Pradesh	-66.7	100.0	16.2	-15.3
All-India	-12.4	19.9	-14.9	3.0

C. AUXILIARY NURSE-MIDWIVES

55. The enrolment of students for the auxiliary nurse-midwifery course is set out in Table 16. The index of enrolment has been calculated with base 1956=100. The year 1956 has been selected as it marks the beginning of Second Five Year Plan. It would appear that there has been a major increase in the enrolment of students during the last 10 years. In fact, the auxiliary nurse-midwife is comparatively a new member of the nursing team in the public health field. This course was formulated in 1950 with the intention of replacing various junior and assistant grade courses by one standard course which would be shorter and simpler than the full course in nursing and midwifery. Secondly, before independence, the services of nurses, midwives and health visitors were more or less confined to hospitals in urban or semi-urban areas. But with the advent of the Government's scheme for rural health services under the Community Development Programme, it was necessary to think of a category of nursing personnel who would be able to undertake nursing care in addition to midwifery in rural areas. The financial aid given by the Government of India under the scheme for preparing nursing personnel for Primary Health Centres has given great impetus to the training programme for auxiliary nurse-midwives. Thus by 1964, the enrolment figure had risen almost five-fold.

56. In the beginning, emphasis was on opening more and more schools for the training of auxiliary nurse-midwives and also providing for more seats in these schools. Later, the expansion of the training programmes depended more or less, on the financial aid given by the Government of India.

TABLE 16

Enrolment in Auxiliary Nurse-Midwifery Schools, 1953-64

Year	Enrolment	Index of Enrolment (1956=100)	Mean Annual Growth Rate
1	2	3	4
1953	163	9	-
1954	456	26	94.8
1955	1,046	60	78.6
1956	1,743	100	50.0

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1	2	3	4
1957	2,451	141	33.8
1958	3,675	211	39.9
1959	4,120	236	11.4
1960	5,053	290	20.3
1961	6,332	363	22.5
1962	7,175	412	12.5
1963	8,332	478	14.9
1964	8,952	514	7.2

Enrolment in Auxiliary Nurse-Midwifery Schools
by Zones/States

57. Enrolment in auxiliary nurse-midwifery schools by zones/states is set out in Table 17. The figures given in brackets are the indices of enrolment with base 1957=100. In terms of absolute enrolment, the south zone which is the best equipped zone for auxiliary nurse-midwifery training is at the top. However, from the growth point of view, west zone leads in all the four years 1960-63. In the north and east zones, the growth indices was almost equal and these are less than the all-India indices. Almost all the states have recorded increase in enrolment of students. Himachal Pradesh leads among Union Territories.

Mean Annual Growth Rate

58. As this training course was started in 1953, the enrolment has gone up in subsequent years. As such the mean annual growth has been significant in many of the states. However, special mention can be made of the state of Bihar (1961), and Jammu and Kashmir (1963).

TABLE 17

Enrolment in Auxiliary Nurse-Midwifery Schools by
Zones/States

Zone/State	1957	1960	1961	1962	1963	1964
a. Central Zone	314(100)	573(182)	924(294)	1,055(336)	1,184(377)	1,436(457)
Madhya Pradesh	189(100)	360(190)	622(329)	701(371)	717(379)	839(444)
Uttar Pradesh	125(100)	213(170)	302(242)	354(236)	467(374)	597(478)
b. Eastern Zone	674(100)	1,047(155)	1,391(206)	1,613(239)	1,766(262)	1,918(285)
Assam	70(100)	155(221)	185(264)	237(339)	241(344)	309(441)
Bihar	136(100)	191(140)	385(283)	418(307)	415(305)	412(303)
Orissa	69(100)	129(187)	160(232)	149(216)	198(287)	214(310)
West Bengal	317(100)	514(162)	601(190)	749(226)	828(261)	873(275)
N. E. F. A.	-	-	-	-	-	16
Manipur	30(100)	-	-	-	26(87)	33(110)
Tripura	52(100)	58(112)	60(115)	60(115)	58(112)	61(117)
c. Southern Zone	745(100)	1,577(212)	1,888(253)	2,098(280)	2,596(348)	2,880(387)
Andhra Pradesh	247(100)	441(179)	603(244)	862(349)	932(377)	932(377)
Kerala	191(100)	439(230)	416(218)	313(164)	650(340)	661(346)
Madras	219(100)	377(172)	485(221)	584(267)	637(291)	757(346)
Mysore	88(100)	320(364)	384(436)	334(380)	377(428)	530(602)
d. Western Zone	301(100)	1,119(372)	1,275(424)	1,419(471)	1,633(543)	1,552(516)
Gujarat	301(100)	1,119(372)	1,275(424)	1,419(471)	1,633(543)	1,552(516)
Maharashtra						
e. Northern Zone	417(100)	737(177)	854(205)	995(239)	1,153(276)	1,166(280)
Jammu and Kashmir	6(100)	10(167)	12(200)	11(183)	26(433)	28(467)
Punjab	241(100)	391(162)	484(201)	591(245)	716(297)	690(286)
Rajasthan	126(100)	232(184)	271(215)	309(245)	297(236)	350(278)
Delhi	26(100)	43(165)	42(162)	29(112)	47(181)	35(135)
Himachal Pradesh	18(100)	61(339)	45(250)	55(306)	67(372)	63(350)
All-India	2,451(100)	5,053(206)	6,332(258)	7,175(293)	8,332(310)	8,952(365)

Note: Figures in brackets are the indices of enrolment with base 1957 = 100.

TABLE 18

Mean Annual Growth Rate of Enrolment in Auxiliary
Nurse-Midwifery Schools, 1961-64

Zone	1961	1962	1963	1964
a. <u>Central Zone</u>	46.9	13.3	11.5	19.2
Madhya Pradesh	53.4	11.9	2.3	15.7
Uttar Pradesh	34.6	15.9	27.6	24.4
b. <u>Eastern Zone</u>	28.2	14.8	9.1	8.3
Assam	17.6	24.6	1.7	24.7
Bihar	67.4	8.2	-0.7	-0.7
Orissa	21.5	-7.1	28.3	7.8
West Bengal	15.6	21.9	10.0	5.3
Tripura	3.4	-	-3.4	5.0
Manipur	-	-	-	23.7
c. <u>Southern Zone</u>	17.9	10.3	21.5	10.4
Andhra Pradesh	31.0	35.4	7.8	-
Kerala	-5.4	-28.3	70.1	1.7
Madras	25.1	18.5	8.7	17.2
Mysore	18.2	-13.9	12.1	33.7
d. <u>Western Zone</u>	13.0	10.7	14.0	-5.1
Gujarat	16.1	19.9	1.9	1.3
Maharashtra	11.5	5.6	20.5	-8.3
e. <u>Northern Zone</u>	14.7	15.2	14.7	1.1
Jammu and Kashmir	18.2	-8.4	83.3	7.4
Punjab	21.3	19.9	19.1	-3.7
Rajasthan	15.6	13.1	-4.0	16.4
Delhi	-2.3	-3.7	47.4	-29.3
Himachal Pradesh	-30.2	-20.0	19.7	-6.2
<u>All-India</u>	22.5	12.5	14.9	7.2

D. HEALTH VISITORS

59. Enrolments for the 'Health Visitor' course is given in Table 19. It is evident that the enrolment of students has gone up considerably during the period under consideration except the years 1960, 1961 and 1962 when decline is indicated. This decline is attributable to the fact that the Bhole Committee had recommended the replacement of the health visitor by the public health nurse. In view of that and also because of the development of generalised health services in the health centres, the Indian Nursing Council took a decision in 1956 that the training of health visitors should be discontinued gradually so as to cease in 10 years' time, that is, by December 1965*. As a consequence of this, the current thinking is to discontinue this course and in future; nurses with public health training would be employed in the public health field.

TABLE 19
Enrolment in Health Visitors Schools, 1953-64

Year	Enrolment	Index of Enrolment (1953=100)	Mean Annual Growth Rate
1953	92	100	-
1954	158	172	52.8
1955	715	777	127.8
1956	787	855	9.6
1957	939	1,021	17.6
1958	1,106	1,202	16.3
1959	1,167	1,269	5.4
1960	1,163	1,264	-0.4
1961	1,131	1,229	-2.8
1962	882	958	-24.8
1963	1,058	1,150	18.1
1964	1,110	1,207	4.8

* The training is, however; not being discontinued as per a decision dated 7th October, 1965, of the Government of India, Ministry of Health, New Delhi.

Enrolment in Health Visitors Schools by
Zones/States

60. Enrolment in Health Visitors Schools is set out in Table 20. The indices of enrolment with base 1957=100 are given in brackets. For reasons explained in the preceding paragraphs, several fluctuations can be seen in the enrolment of students for health visitors training in the zones as well as the states. However, one-third of the total enrolment is claimed by Uttar Pradesh and Andhra Pradesh in all the years given here.

TABLE 20

Enrolment in Health Visitors Schools by
Zones/States

Zone/State	1957	1960	1961	1962	1963	1964
a. Central Zone	221(100)	296(134)	262(119)	119(90)	210(95)	250(113)
Uttar Pradesh	161(100)	241(150)	209(130)	170(106)	188(117)	201(125)
Madhya Pradesh	60(100)	55(92)	53(88)	29(48)	22(37)	49(82)
b. Eastern Zone	104(100)	110(105)	102(98)	71(68)	110(106)	113(109)
Assam	-	-	-	-	-	10-
Bihar	79(100)	96(122)	102(129)	71(90)	100(126)	103(130)
West Bengal	25(100)	14(56)	-	-	-	-
Tripura	-	-	-	-	10(100)	-
c. Southern Zone	244(100)	339(139)	373(153)	307(125)	389(159)	397(163)
Andhra Pradesh	157(100)	210(134)	234(149)	202(129)	222(141)	226(144)
Mysore	-	48(100)	67(140)	33(69)	24(50)	57(119)
Kerala	36(100)	30(83)	-	-	-	-
Madras	51(100)	51(100)	72(141)	72(141)	143(280)	114(224)
d. Western Zone	84(100)	141(168)	72(85)	49(58)	45(54)	44(52)
Gujarat) Maharashtra)	84(100)	141(168)	72(85)	49(58)	45(54)	44(52)
e. Northern Zone	286(100)	277(97)	322(113)	256(89)	304(106)	306(107)
Jammu and Kashmir	11(100)	11(100)	32(291)	32(291)	43(291)	42(382)
Punjab	148(100)	125(84)	129(87)	72(49)	129(87)	132(89)
Rajasthan	-	24(100)	31(129)	32(133)	21(88)	37(154)
Delhi	122(100)	100(82)	98(80)	89(73)	83(68)	78(64)
Himachal Pradesh	5(100)	17(340)	32(640)	31(620)	28(506)	17(340)
All-India	939(100)	1,163(124)	1,131(120)	882(94)	1,058(112)	1,110(118)

Note: Figures in brackets are the indices of enrolment with base 1957=100.

Mean Annual Growth Rate

61. A perusal of Table 21 reveals that there are several oscillations in the mean annual growth rates of many of the states. The highest decrease was in the west zone in 1961 and in this zone, the enrolment has fallen in the subsequent years also. Significant mean annual growth was recorded in the states of Jammu and Kashmir, Himachal Pradesh, Rajasthan, Madras and Mysore in 1961. In the year 1963, the mean annual growth rate was in the south state of Madras and north state of Punjab.

TABLE 21

Mean Annual Growth Rate of Enrolment in Health Visitors
Schools by Zones/States

<u>Zone/State</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>
a. <u>Central Zone</u>	-12.2	27.4	5.4	17.4
Uttar Pradesh	-14.2	-20.6	10.1	6.7
Madhya Pradesh	-3.6	-58.5	-28.0	76.1
b. <u>Eastern Zone</u>	-7.5	-36.0	-43.3	2.7
Bihar	6.1	-36.0	34.1	3.0
West Bengal	-	-	-	-
c. <u>Southern Zone</u>	9.6	-20.2	23.6	2.0
Andhra Pradesh	10.8	-14.7	9.4	1.8
Mysore	33.3	-68.0	-32.1	81.5
Kerala	-	-	-	-
Madras	34.4	-	66.4	-22.6
d. <u>Western Zone</u>	-65.1	-38.3	-8.5	-2.2
Gujarat	57.1	8.5	-8.5	-2.2
Maharashtra	-76.7	-	-	-
e. <u>Northern Zone</u>	15.1	-22.8	17.1	0.7
Jammu and Kashmir	97.7	-	29.3	-2.4
Punjab	3.2	-57.0	57.0	2.3
Rajasthan	25.9	3.2	42.3	55.2
Delhi	2.0	-9.7	-6.9	-6.2
Himachal Pradesh	60.0	-3.1	-10.3	-48.9
<u>All-India</u>	-2.8	-24.8	18.1	4.8

E. POST-CERTIFICATE COURSE IN NURSING

62. In addition to the four nursing courses dealt with earlier, there is a degree course, B.Sc. (Nursing), and a number of post-certificate/post-graduate courses. These post-certificate/post-graduate courses are open to qualified nurses with some practical experience. The duration of the degree course is four years except, in Vellore where a six-month midwifery course is additional. The duration and intake capacities for the various post-certificate courses and the post-graduate course is given below:-

<u>Name of the Course</u>	<u>Duration of Course</u>	<u>Total intake capacity, 1962 (Approximate)</u>
1. Master of Nursing	2 years	15 each year
2. B.Sc. (Nursing Administration and Teaching)	2 years	15 each year
3. Nursing Administration	1 year	20
4. Nursing Tutor	1 year	80
5. Midwifery Tutor	1 year	15
6. Public Health Nursing Supervision	3 months	12
7. Public Health Nursing	1 year	120
8. Psychiatric Nursing	1 year	20
9. Ward Management and Teaching	3 months (6 months at Indore)	100
10. Paediatric Nursing	1 year	12

63. The previous table gives an idea of the number of extent of physical facilities available for higher training in nursing. However, the actual enrolment for such courses for the four years for which data are available is given in Table 22.

TABLE 22

Enrolment of Students for Degree and Post-certificate
Courses in Nursing

Name of the Course	Enrolment			
	1961	1962	1963	1964
1	2	3	4	5
A. <u>Post-Graduate</u>				
Master of Nursing	6	9	5	11
B. <u>Degree</u>				
B.Sc. Nursing	235	312	339	378
C. <u>Post-Certificate</u>				
1. Nursing Administration	12	18	22	24
2. Sister Tutor	67	74	82	100
3. Midwifery Tutor	10	12	12	13
4. Ward Sister	110	153	204	225
5. Public Health Nursing	69	95	104	101
6. Psychiatric Nursing	20	20	18	28
7. Paediatric Nursing	-	8	8	10
8. Public Health Nursing Supervision	12	12	12	13
9. Post Basic for B. Sc. Nursing Teaching and Administration	-	-	10	27
Degree Courses	235	308	339	378
Post-Certificate Courses	306	401	477	552

Note: For the years 1961, 62, 63 and 64, the figures in respect of the degree course in nursing relate to two colleges offering courses leading to B. Sc. (Nursing).

64. It can be seen from Table 22 that there has been considerable increase in the enrolment of students in B. Sc. (Nursing) between the period 1961-64. Similarly in other post-certificate courses, the enrolment has followed, more or less, an increasing trend. The enrolment of students for Master of Nursing Course in 1963 has fallen with respect to the previous year.

Enrolment for Degree Course by State

65. It would appear from Table 23 that enrolment for the degree courses is highest for the four years in Delhi. This is so as the first degree course in nursing was started in Delhi. Next to this is Andhra Pradesh followed by Madras.

TABLE 23

Enrolment of Students in Degree Courses (Nursing)
by State, 1961-64

State	1961	1962	1963	1964
Andhra Pradesh	43	63	74	73
Kerala	-	14	-	-
Madhya Pradesh	14	22	36	40
Madras	57	61	58	69
Maharashtra	17	52	57	79
Rajasthan	-	-	11	6
Delhi	104	100	103	111
All-India	235	312	339	378

Enrolment of Students for Post-Certificate Courses

66. A glance at Table 24 will indicate that Delhi is at the top followed by Madhya Pradesh and West Bengal in the year 1962. The enrolment of students records a jump in 1963 for the State of Mysore. This is because of the provision of facility for the Ward Sister Course in the Bangalore Medical College, Bangalore.

TABLE 24

Enrolment of Students for Post-Certificate Courses
in Nursing by States, 1961-64

State	1961	1962	1963	1964
1. Gujarat	-	6	11	11
2. Kerala	-	9	24	40
3. Madhya Pradesh	44	54	48	70
4. Madras	36	37	30	37
5. Maharashtra	11	21	19	21
6. Mysore	20	20	117	90
7. Punjab	-	-	-	3
8. Uttar Pradesh	-	-	17	27
9. West Bengal	49	52	47	51
10. Delhi	146	202	164	202
All-India	306	401	477	552

SECTION V

OUT-TURN OF NURSING PERSONNEL

67. Nursing personnel covered here include four types of nursing personnel namely Nurses, Midwives, Auxiliary Nurse-Midwives and Health Visitors, each of whom must have completed a prescribed course of training and have been successful in the examination for that course conducted by an Examining Body recognised by the Indian Nursing Council. The out-turn figures are given at all-India and Zonal levels. The state-wise figures of the out-turn of qualified nursing personnel are not given here as the data are available council-wise which cannot be easily broken up statewise.

A. NURSES

68. The out-turn of certified nurses from 1950 to 1964 is presented in Table 25. By certified nurses is meant those who have completed successfully the certificate course in general nursing and midwifery extending over a period of $3\frac{1}{2}$ years. The indices of out-turn with base 1951=100 and average annual growth rates are also given in the same table. It may be seen from the table that the out-turn of nurses is on the increase. As compared to the year 1951, the beginning of the First Five Year Plan, it went up by 59% at the end of First Five Year Plan, 107% at the end of the Second Plan and 187% during the period under review.

TABLE 25

Out-turn of Nurses, 1950-64

Year	Out-turn	Index Number (1951=100)	Average Annual Growth Rate
1950	1, 282	104	-
1951	1, 236	100	-3.7
1952	1, 770	143	35.5
1953	1, 740	141	-1.7
1954	1, 827	148	4.9
1955	1, 962	159	7.1
1956	1, 914	155	-2.5
1957	2, 078	168	8.2
1958	2, 142	173	3.0
1959	2, 563	207	17.9
1960	2, 562	207	-
1961	2, 851	231	10.7
1962	3, 006	243	5.7
1963	3, 493	283	14.9
1964	3, 545	287	1.5

- Negligible.

Out-turn of Nurses by Zones

69. Zonal distribution of the out-turn of Nurses for the years 1956 and 1960-64 is presented in Table 26. The index numbers with base 1956=100, the beginning year of the Second Five Year Plan, are also calculated and given in brackets. As would be seen from Table 26, the out-turn of nurses increased by 85% from 1956 to 1964 at the all-India level. In the year 1961, the increases in the west and north zones were considerably more than the increase at the all-India level. In the year 1964, the relative position between the zones was more or less the same as in 1961, 1962 and 1963, the highest increase being in the north zone.

TABLE 26
Out-turn of Nurses by Zones

Zone	1956	1960	1961	1962	1963	1964
Central	260(100)	360(138)	294(113)	398(153)	382(147)	432(166)
Eastern	448(100)	549(123)	469(105)	472(105)	586(131)	627(140)
Southern	660(100)	904(137)	958(145)	1,061(161)	1,123(170)	1,174(178)
Western	385(100)	526(137)	811(211)	714(185)	784(204)	719(187)
Northern	161(100)	223(139)	319(198)	361(224)	618(384)	593(368)
All-India	1,914(100)	2,562(134)	2,851(149)	3,006(157)	3,493(182)	3,545(185)

Note: Figures in brackets are the indices of out-turn of nurses with base 1956=100.

Mean Annual Growth Rate

70. Mean Annual Growth Rate was highest in the west zone in 1961, in the central zone in year 1962 and in the north zone in 1963. In the year 1964, there was significant decline in the west and north zones.

TABLE 27
Mean Annual Growth Rate

Zone	1961	1962	1963	1964
Central	20.2	30.1	-41.0	12.3
Eastern	-15.7	6.4	21.6	6.8
Southern	5.8	10.2	5.7	4.4
Western	42.7	-12.7	9.3	-8.6
Northern	35.4	15.1	52.6	-4.1
All-India	10.7	5.3	14.9	1.5

Out-turn of Nurses per 5 million Population

71. The out-turn of nurses per 5 million population is given in Table 28. The most favourable relationship between the out-turn of nurses and the population was in the west and north zones although highest out-turn of nurses was in the south zone. However, in the south zone, the out-turn of nurses per 5 million population was more than that at the all-India level. In the east and central zones, the out-turn of nurses per 5 million population was less than all the other three zones as well as the all-India level.

TABLE 28
Out-turn of Nurses per 5 million Population, 1964

Zone	Estimated Mid-year population (millions) 1964*	Out-turn per 5 million population
Central	114.71	18
Eastern	123.24	25
Southern	118.25	50
Western	66.35	54
Northern	52.98	51
All-India	475.53	37

* Source: Registrar General of India.

Out-turn of Graduate Nurses

72. The yearwise out-turn of graduate nurses as available for the period 1950-64 is given in Table 29. The table reveals that the number of qualified graduate nurses is continuously on the increase.

TABLE 29
Out-turn of Graduate Nurses, 1950-64

Year	Out-turn	Index Number	Mean Annual Growth Rate
1950	14	100	-
1951	21	150	41.2
1952	30	214	36.0
1953	20	143	-40.0
1954	29	207	37.5
1955	21	150	-32.0
1956	32	229	42.3
1957	17	121	-60.0
1958	24	171	35.0
1959	32	229	28.6
1960	25	179	-25.0
1961	43	307	52.9
1962	49	350	13.0
1963	42	300	-15.6
1964	58	414	32.0

Out-turn of Nurses with Post-basic Training

73. In order to prepare nurses to (a) participate in planning, (b) organise nursing services, (c) develop nursing education programmes, (d) conduct research in training, and (e) demonstrate good patient-care both in the hospital and community, there are advanced courses known as "post-basic courses". The duration of these courses varies. The out-turn of Nurses with advanced training is set out in Table 30. It can be observed that except the years 1954 and 1955, the out-turn of nurses with higher training in nursing is consistently on the increase. This increasing trend is an indicator of the fact that the profession of nursing is becoming more and more popular. The nursing educational background of the nurses is also improving.

TABLE 30

Out-turn of Nurses with Post-basic Training, 1950-64

Year	Out-turn	Index No. (1950=100)	Mean Annual Growth Rate
1950	32	100	
1951	36	113	11.8
1952	38	119	5.4
1953	55	172	36.9
1954	40	125	-31.9
1955	37	116	-7.9
1956	72	225	64.8
1957	142	444	65.4
1958	155	484	8.8
1959	216	675	32.9
1960	227	709	4.9
1961	306	956	29.7
1962	362	1,131	16.8
1963	371	1,159	2.5
1964	448	1,400	18.8

B. MIDWIVES

74. Table 31 presents the out-turn of midwives from 1950 to 1964. The indices with base 1951=100 and average annual growth rates are also given in the same table. As can be seen from the table, the out-turn of midwives was on the increase till 1957 and afterwards it assumed an erratic trend. The out-turn was doubled during the period 1951-64. As pointed out in the enrolment of midwives the reason for the erratic trend in the later part of the period under review is that midwifery training is now given to qualified nurses and midwifery training schools for candidates, who have no background of nursing have been converted into schools for auxiliary nurse-midwives. *

* The number of midwifery training schools for candidates without any background of nursing decreased from 75 in 1961 to 5 in 1964.

TABLE 31Out-turn of Midwives, 1950-1964

Year	Out-turn	Index Number (1951=100)	Average Annual Growth Rate
1950	1, 559	96	-
1951	1, 628	100	4. 3
1952	1, 634	100	0. 4
1953	1, 983	122	19. 3
1954	2, 170	133	9. 0
1955	2, 332	143	7. 2
1956	2, 605	160	11. 1
1957	2, 670	164	2. 5
1958	2, 594	159	-2. 9
1959	2, 978	183	13. 8
1960	1, 986	122	-39. 9
1961	2, 277	140	13. 6
1962	2, 817	173	21. 2
1963	3, 237	199	13. 9
1964	3, 275	201	1. 2

Note: There are two types of courses namely (i) Midwifery course for trained nurses, the duration of which is six months and (ii) Midwifery course for others, the duration of which is 1½ years. As such the out-turn figures are not directly comparable to the enrolment figures of a particular year.

Out-turn of Midwives by Zones

75. Table 32 shows that in the south zone, which claims the highest number of midwifery training schools, there have been considerable variations in the out-turn of midwives from year to year. Steady increase in the out-turn of midwives is noticed in the north and west zones. The central zone, which has got the least number of midwifery schools shows an increase of 30% in the out-turn of midwives during the period 1956-64 whereas the east zone where the number of midwifery schools is more than the schools in the west and central zones, records a decline in out-turn of midwives.

TABLE 32Out-turn of Midwives by Zones

Zone	1956	1960	1961	1962	1963	1964
Central	349(100)	357(102)	453(130)	405(116)	415(119)	455(130)
Eastern	556(100)	492(88)	517(93)	429(77)	543(98)	514(92)
Southern	1,064(100)	397(37)	409(38)	1,030(97)	1,210(114)	1,105(104)
Western	464(100)	525(113)	644(139)	697(150)	759(164)	744(160)
Northern	172(100)	215(125)	254(148)	256(149)	310(180)	397(231)
All-India	2,605(100)	1,986(76)	2,277(87)	2,817(108)	3,237(124)	3,275(126)

Note: Figures in brackets are the indices of out-turn of midwives with base 1956=100.

Mean Annual Growth Rate

76. Table 33 shows the average annual growth rate in the outturn of midwives for the period 1961-64. The highest average annual growth rate was in the central zone in 1961, in the south zone in 1962 and in the east zone in 1963. There are several variations from zone to zone in 1962; two zones viz. the central and east recorded decrease, the south zone a remarkable increase and there was insignificant increase in the north zone.

TABLE 33
Mean Annual Growth

Zone	1961	1962	1963	1964
Central	23.7	-11.2	2.4	9.2
Eastern	4.9	-18.6	23.5	-5.5
Southern	2.9	86.4	16.1	-9.1
Western	20.4	7.9	8.5	-2.0
Northern	16.7	0.8	19.1	24.6
All-India	13.7	21.2	13.9	1.2

C. AUXILIARY NURSE-MIDWIVES

77. The out-turn of Auxiliary Nurse-Midwives for the period 1954-1963 is set out in Table 34. It may be noted that the first batch of auxiliary nurse-midwives qualified in the year 1954 and as such the figures are available only from that year. The index number has been calculated with 1956=100 as it marks the beginning of the Second Plan. During the decade 1954-1963, which marks a period of intense economic activity under the five year plans, the out-turn of auxiliary nurse-midwives has shown an ever-growing trend. As compared to the year 1956, the out-turn of auxiliary nurse-midwives went up eight times. The average annual growth rate was at the peak in 1956.

TABLE 34

Out-turn of Auxiliary Nurse-Midwives, 1954-1963

Year	Out-turn	Index Number (1956=100)	Average Annual Growth Rate
1954	53	18	
1955	42	14	-23.4
1956	299	100	150.3
1957	501	168	50.5
1958	793	265	45.1
1959	955	319	18.5
1960	1,828	611	62.8
1961	2,083	697	13.0
1962	2,248	752	7.6
1963	2,644	884	16.2
1964	3,283	1,098	21.6

Out-turn of Auxiliary Nurse-Midwives by Zones

78. Table 35 shows the out-turn of auxiliary nurse-midwives for the period 1956-64 by zones. The increases in the southern and western zones are most significant.

TABLE 35Out-turn of Auxiliary Nurse-Midwives by Zones

Zone	1956	1960	1961	1962	1963	1964
Central	83(100)	243(293)	328(395)	320(385)	382(460)	722(870)
Eastern	104(100)	456(438)	391(376)	530(510)	661(636)	553(532)
Southern	41(100)	332(810)	527(1,285)	709(1,729)	522(1,273)	1,011(2,466)
Western	16(100)	562(3,513)	584(3,650)	487(3,044)	653(4,081)	635(3,969)
Northern	55(100)	235(427)	253(460)	202(367)	426(775)	362(658)
All-India	299(100)	1,828(611)	2,083(697)	2,248(752)	2,644(884)	3,283(1,098)

Note: Figures in brackets are the indices of out-turn of auxiliary nurse-midwives with base 1956 = 100.

Mean Annual Growth Rate

79. Significant average annual growth rates can be seen in Table 36. The most remarkable growth is in the north zone during the year 1963. Negative average annual growth rate was recorded in the eastern zone in 1961, in the central and west zones in 1962 and in the south zone in the year 1963.

TABLE 36Mean Annual Growth Rate

Zone	1961	1962	1963	1964
Central	29.8	-2.5	17.7	61.5
Eastern	-15.4	30.2	22.2	-17.8
Southern	45.5	29.4	-30.4	63.8
Western	3.8	-18.1	29.1	-2.8
Northern	7.4	22.5	71.3	-16.2
All-India	13.0	7.6	16.2	21.6

Out-turn of Auxiliary Nurse-Midwives per 5 million
Population

80. As may be seen in Table 37, the west zone which is the second best equipped zone for auxiliary nurse-midwifery training, has the best relationship between the out-turn of auxiliary nurse-midwives and the population of that zone. Though the south is the first equipped zone with regard to auxiliary nurse-midwifery schools, the out-turn of auxiliary nurse-midwives in relationship to the population is less than the all-India level. In the north zone, the relationship is quite good as compared to the other zones and the all-India level.

TABLE 37

Out-turn of Auxiliary Nurse-Midwives per
5 million population, 1964

Zone	Out-turn per 5 million population
Central	31
Eastern	22
Southern	43
Western	48
Northern	34
All-India	35

D. HEALTH VISITORS

81. Figures for the out-turn of Health Visitors for the period 1950-64 are set out in Table 38. Till 1960, the out-turn of health visitors went up steadily but the trend from 1961 onwards shows unsteadiness. The fall in the out-turn of qualified health visitors during 1961-63 is due to the current thinking that this course be discontinued and health visitors be replaced by the public health nurse.* However, during the entire period under consideration, the out-turn went up almost five times.

* More details are given in Section III - Enrolment of Health Visitors.

TABLE 38Out-turn of Health Visitors, 1950-64

Year	Out-turn	Index Number 1950=100	Average Annual Growth Rate
1950	53	95	
1951	56	100	5.5
1952	51	91	- 12.9
1953	56	100	12.9
1954	76	136	30.3
1955	106	190	32.9
1956	123	220	14.9
1957	214	383	54.2
1958	216	467	19.8
1959	362	648	32.5
1960	412	737	12.9
1961	369	659	- 26.7
1962	370	662	16.1
1963	307	550	- 18.6
1964	393	702	24.6

Out-turn of Health Visitors by Zones

82. Out-turn of Health Visitors by zones for the year 1956 and 1960-63 is set out in Table 39. Figures given in brackets are the indices with base 1956=100. The south zone, which has one-fourth of the total number of schools for health visitors training, has also the highest out-turn. This is followed by the north zone which has the highest number of health visitors' training schools. There was also substantial increase in the east zone but the out-turn figures are small as this zone has two schools only.

TABLE 39
Out-turn of Health Visitors by Zones

Zone	1956	1960	1961	1962	1963	1964
Central	47(100)	153(326)	114(243)	130(278)	64(136)	107(228)
Eastern	8(100)	51(638)	38(475)	44(550)	24(300)	27(338)
Southern	30(100)	115(383)	107(357)	115(383)	141(470)	152(507)
Western	24(100)	51(213)	63(263)	34(142)	33(138)	38(158)
Northern	14(100)	42(300)	47(336)	47(336)	45(321)	69(493)
All-India	123(100)	412(335)	369(300)	370(301)	307(250)	393(320)

Note: Figures in brackets are the indices of out-turn of health visitors with base 1956=100.

Average Annual Growth Rate

83. A perusal of Table 40 will indicate that the average annual growth rate was erratic in all the zones in all the three years given here. However, the most significant average annual growth rate was in the central zone in 1963. At the all-India level, there was an insignificant increase in the year 1962, the growth rate decreased in 1961 and 1963.

TABLE 40
Mean Annual Growth Rate

Zone	1961	1962	1963	1964
Central	- 29.3	13.1	69.0	50.3
Eastern	- 29.6	14.6	- 58.8	11.8
Southern	- 7.2	7.2	20.3	7.5
Western	21.0	- 60.4	- 29.9	14.1
Northern	11.4	-	- 4.3	42.1
All-India	- 11.0	0.3	- 18.6	24.6

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APPENDIX 1

EXTRACTS FROM THE SYLLABUS PRESCRIBED BY INDIAN NURSING COUNCIL

A - GENERAL NURSING AND MIDWIFERY

Entrance Requirements

The minimum educational requirement is the passing of matriculation or equivalent examination and, for those who have completed the course of instruction for matriculation or equivalent examination, the passing of an entrance examination conducted by an authority mentioned in Part A of the Schedule to the Indian Nursing Council Act.

The minimum age for entrance is 17 years.

Duration of the Course

The duration of the course in general nursing is three years.

A health visitor who wishes to qualify as a nurse with basic public health training is required to undergo training in general nursing for a period of 2 years in a training school in which public health is integrated in the nursing course.

A registered midwife who wishes to take the course in general nursing is given an exemption of six months provided she meets the minimum requirements for the course.

An auxiliary nurse-midwife who wishes to qualify in general nursing and midwifery is required to:-

- (1) to meet the minimum educational requirement for the course in general nursing;
- (2) to undergo training for 2½ years in General Nursing and for 3 months in Midwifery and to pass in the prescribed examinations.

Syllabus

1. Anatomy and Physiology (class hours and demonstrations - 74 hours)

The aim of the course is to give the student a general knowledge of the structure and function of the healthy human body which would serve as a basis for understanding deviations from the normal. Only as much knowledge of structure should be included as is necessary to understand function.

2. Physics and Chemistry (class hours and demonstrations - 44 hours)

The aim of this course is to provide the background necessary for (i) full understanding of the courses in physiology and hygiene, (ii) a correct handling of equipment, (iii) a full grasp of the principles underlying certain nursing treatments, and (iv) improvisation of apparatus in emergencies.

3. Microbiology (class hours and demonstrations - 33 hours)

The aim of the course is to give the student a good general understanding of the habits and characteristics of micro-organisms and the part they play in health and disease, so that she may understand the essential relation of microbiology to the diagnosis, treatment and prevention of disease and the principles involved in asepsis, disinfection and insolation, and comprehend fully the need for sanitary practice in daily life. Emphasis should be on organisms which menace health; it is not necessary that the nurse be able to identify them.

4. Personal and Environmental Hygiene (class hours and demonstrations -44 hours)

The aim of this course is to show the close relationship of hygiene and nursing, to develop good health habits in the student, to emphasise the opportunities and responsibilities of the nurse as a teacher of health and to develop the conviction that disease is preventable and that it is the individual's responsibility to prevent it.

The instruction in personal hygiene should be correlated with the health service for the students provided by the training school. The students health record may be used as a teaching aid in maintaining good healths.

5. Nutrition and Cookery-Invalid and General (class hours and demonstrations-33 hours).

The aim of the course is to teach students the essential facts and principles required in the feeding of normal people and to appreciate the importance of diet in maintaining and restoring health. The course in cookery should be modified or added to, to meet local requirements.

6. Nursing (preliminary period and first year-class hours and demonstrations-315 hours).

The aim of the nursing course in the preliminary school is to help the student to understand the fundamental principles which underlie good nursing; to give her a general idea of the place and function of the hospital in relation to the total health services provided to the community, to foster the development of a professional attitude and a pride in acquiring skill and putting it to practice; to instruct the student in the careful and economic use of equipment and materials.

7. Elements of Psychology (24 hours)

The aim of the course is to develop in the nurse an ability to understand the patient and to work harmoniously with her colleagues.

8. History of Nursing and Ethics (10 hours)

The aim of this course is to trace the historical developments of nursing in India from pre-Christian period to modern days including the developments of schools, examinations and registration, a brief review of nursing organisations in India today. It also highlights the contribution of the nurse of today to the history of nursing, the responsibility of the nursing student to her profession, her heritage and opportunities.

9. Combined Course in Medical and Surgical Nursing and Specialities (200 hours)

This course should bring together into one course the pathology, medicine and medical nursing, surgery and surgical nursing, materia medica, diet and the public health knowledge each nurse needs as a foundation for her work in the hospital or in the home. The medical and surgical lectures should be given by doctors and be followed by the

Sister Tutor's lectures giving the special nursing care in the condition considered. The principles underlying good nursing care in each case should be applied to conditions in the hospitals and in the homes. Stress should be placed on health teaching and prevention of disease throughout the course by the Sister Tutor and the doctors. The materia medica and diet therapy should be related to conditions studied.

10. Mental Hygiene (10 hours)

Mental health and requirements for a well-balanced personality. The needs of the individual. Types of personality, mental and emotional development. Common neurotic conditions; causes, preventive measures. The problem of mental diseases in the community.

11. The Principles and Practice of Ward Management (8 hours)

Ward administration, the principles of supervision, assigning of duties, hospital housekeeping, inventories and ordering equipment and supplies.

12. Professional Developments and Trends (10 hours)

The problems and responsibilities of the young graduate. How to apply for a post. Contracts. Ethical responsibilities. Professional opportunities.

Nursing organisations in India, their organisation, aims and work, professional journals. The international council of nurses. The Red Cross Nursing Legislation, registration. Legal Matters. India's needs in the nursing field. Trends and developments in India and other countries. Public health nursing.

13. Health Problems in India Today (10 hours)

A consideration of the health problems of the country and attempts that are being made to meet them. Malaria, leprosy, tuberculosis, venereal diseases, maternity and child welfare, school health, industrial health problems. Rural health. Economic factors in national health. Health education, the need and method. Preventive medicine and the responsibility of the nurse. Problems in the local community.

Special Subjects for Men Student Nurses

Men nurses should take training in any two of the following subjects for a period of three months in each subject. The training should be in addition to the classes and practical experience in the subjects, if any, in the general nursing training for both men and women nurses.

1. Venereal Diseases
2. Leprosy Nursing
3. Tuberculosis Nursing
4. Ophthalmic Nursing
5. Psychiatric Nursing
6. Operation Theatre Technique

Course in Midwifery

The minimum period of training shall be six months. The candidate should be registered nurse, trained in the nursing of men, women and children. During the period of training each student midwife shall:-

1. Conduct ante-natal examinations on not less than 50 women;
2. receive clinical instruction in the conduct of labour, witnessing not less than ten deliveries before conducting one herself;
3. conduct not less than 20 deliveries; at least five of these being in patients' own homes.
4. nurse not less than 20 lying in women and their babies during the puerperium; at least five of these women being attended on in their own homes.
5. be required to make five vaginal examinations and be taught to take blood pressures.
6. attend 75% of lectures and demonstrations.

B. B.Sc. COURSE IN NURSING

Admission Requirements

1. The minimum age for admission shall be 17 years.
2. The minimum educational requirements shall be the passing of matriculation or equivalent examination

prescribed for admission to a college by the University concerned. Consideration should be given to the subjects taken by the student in matriculation. Preference should be given to those having science and mathematics.

Duration of the Course

The duration of the course shall be four calendar years.

Syllabus

Nursing Practice

Ward teaching, both incidental and planned, covering the major common (not rare and exceptional) diseases and conditions represented on each service is essential.

The planned programme should not be merely a review of class room teaching but should be specific studies on selected patients. The programme for each service should cover a period of 4-12 weeks depending upon the amount of clinical experience required in the particular field, and be not less than two hours of planned teaching per week in each ward during the entire period of clinical experience, whether on a whole or part-time basis.

During the first University year while classes are being held. (In the class room, wards and public health field)

300-400 hours

During the vacation period at the end of the first year and in the subsequent

134 weeks of 36-48 hours per week.

Three Years

Medical Nursing	15-18 weeks
General Surgical Nursing	15-18 weeks
Nursing of children	12-14 weeks
Operating room	8-12 weeks
Gynaecological Nursing	6-8 weeks
E. N. T. and Eye	4 weeks
Nursing of infectious diseases	6-8 weeks

Out-patients department	4 weeks
Ward administration and Ward teaching)	4- 8 weeks
Public health nursing) Urban and Rural)	12- 20 weeks
Elected according to students) needs and interest)	8- 12 weeks
Midwifery (hospital and domiciliary)	24- 26 weeks

Nursing Subjects, Clinical

Nursing Arts	160-200 hours	1st year
Nursing in clinical fields (including medical, surgical, paediatrics, gynaecology, and specialities)	250-300 hours	2nd <u>and</u> 3rd year
Advanced Professional subjects History of nursing, professional responsibilities and trends; ward administration and teaching	60-90 hours	3rd and 4th year
Public Health Nursing Subjects Introduction to health subject (personal and environmental hygiene Nutrition in health)	80-100 hours	1st year
Preventive medicine and microbiology	80-120 hours	2nd year
Public Health Nursing	90-120 hours	4th year
Midwifery	60-90 hours	4th year
Sciences basic to Nursing Biological sciences (biology, physiology, and anatomy)	160-200 hours	1st year
General science (physics, chemistry)	100-140 hours	1st year
Psychology	90-120 hours	2nd or 3rd year
Sociology	90-120 hours	3rd or 4th year

Humanities

Language (English and/or other language as approved by the University) 150-260 hours as desired

History (World or other general history) 80-120 hours as desired

C. AUXILIARY NURSE—MIDWIFERY COURSE

Entrance Requirements

The minimum educational requirement shall be:

1. Completion of the first seven classes of schooling, or
2. the passing of an entrance examination conducted by any authority mentioned in Part I-c of the Schedule to the Indian Nursing Council Act, 1947, in which mathematics, science and language are of the standard of (a).

The minimum age for admission shall be 17 years.

Period of Training

2 years (The student be required to undergo not less than 9 months training in nursing and not less than 12 months in midwifery. The remaining 3 months may be utilised for domiciliary experience including domiciliary nursing and midwifery). During the preliminary period of three months the student should not be assigned any ward duties but after the first two weeks the students should attend the wards for observation and supervised practice not exceeding 16 hours per week. An examination to assess the student's ability to continue her training should be held in the 12th or 13th week.

Teaching Programme

The syllabus has been divided into three sections thus:-

- | | |
|------------------------------------|-----------|
| 1. Preliminary Training Period | 3 months |
| 2. Elementary Nursing Care | 6 months |
| 3. Midwifery and Community Nursing | 15 months |

Syllabus for Preliminary Training Period

Anatomy and Physiology	50 hours
First Aid and Bandaging	30 hours
Personal and Community Health	76 hours
Introduction to Nursing Care	120 class hours 132 hours for practice

Syllabus for Elementary Nursing Care (6 months)

General Care of the Sick	30 hours
Health Teaching	10 hours
Medical Nursing	30 hours
Surgical Nursing	30 hours
Paediatrics	30 hours
Health Problems	30 hours

Syllabus for Midwifery and Community Nursing

Midwifery	a minimum of 150 class hours
Community Nursing	30 class hours

During the course of training the student shall:

- (1) conduct ante-natal examinations on not less than 50 women;
- (2) receive clinical instruction in the conduct of labour witnessing not less than 10 labours before conducting a delivery herself;
- (3) conduct five vaginal examinations under supervision;
- (4) conduct not less than 20 deliveries, five of which shall be in the patient's own home; a delivery should be conducted by one student only;
- (5) nurse not less than 20 lying-in women and their babies including five in the patient's own home;

- (6) have experience of nursing in the community, including domiciliary midwifery.

D. HEALTH VISITORS

Entrance requirements

(1) The minimum educational requirement shall be the passing of the matriculation or equivalent examination and for those who have completed the course of instruction for matriculation or equivalent examination the passing of an entrance examination conducted by any authority mentioned in Part C of the Schedule to the Indian Nursing Council Act, 1947.

(2) The minimum age for admission to the course shall be 18 years.

Duration of the Course

Duration of the course shall be 2½ years.

Course Outline

First nine months (preliminary period):-

The following subjects shall be covered in the first nine months of the course:-

Anatomy and physiology	--	30 hours
Personal hygiene	--	8 lectures
Microbiology	--	8 hours
General psychology	--	10 hours
Principles of nutrition	--	8 hours
Cookery	--	8 hours
Nursing, theory and practice	--	30 hours
Household management	--	12 hours
First Aid	--	16 hours
Introduction to home visiting	--	6 hours

Second Nine months (10th to 18th months of the course):-
During this period the Midwifery Course should be covered.

Last Year - The following subjects should be covered during last 12 months of training:-

Book-keeping and record writing	-- 6 lectures
Methods and principles of teaching)	
Health Education)	--12 lectures
Art of interviewing)	
Ethics)	
Child Health	--16 lectures
Child psychology	--12 lectures
School health	-- 8 lectures
Communicable diseases	--18 lectures
Tuberculosis	--12 lectures
Economics and social problems	-- 8 lectures
Applied nutrition and dietetics	-- 8 lectures
Pharmacology	-- 6 lectures
Industrial Health	-- 8 lectures
Hygiene and Public Health	--15 lectures
Public health administration--	-- 6 lectures
Civics	-- 6 lectures
Organisation of maternity and child welfare work	
Supervision of auxiliary workers	-- 8 lectures
Administration of health centre office)	
Committee procedure)	-- 3 lectures
Rural development	-- 6 lectures

If there are no facilities for giving any of these courses in the midwifery training school, the courses should be arranged and given by the health school. If there is a training school for nurses in the hospital in which the midwifery course is given, it is advisable for the student health visitors to attend as many of the same lectures as is possible with the first year student nurses in anatomy, physiology, hygiene and other subjects. It is considered that the joint classes would be a valuable learning experience for both groups of students and therefore any adjustments necessary for the purpose should be made.

Practical Work

First nine months - During this period the students should get experience of nursing in the general ward including the nursing of

children.

Second nine months - During the course in midwifery the student should:-

- (a) conduct ante-natal examinations on not less than 50 women;
- (b) receive clinical instruction in the conduct of labour and witness not less than 10 deliveries before conducting a delivery herself;
- (c) conduct not less than 20 deliveries;
- (d) nurse not less than 20 lying-in women and their babies;
- (e) receive instructions in making vaginal examinations and estimation of blood pressure;
- (f) do home visiting for not less than 50 hours including follow up of at least 5 pregnant women during this period;

A record of practical work should be maintained.

Last Year - It is advisable to have a well organised field centre for practical instruction in home visiting and in health work. The centre may be under the administration of the school or a centre in the locality may be utilised with additional staff, if necessary, for teaching fifty to one hundred families should be assigned to each student.

Instruction and supervised practice to cover the following subjects:-

Ante-natal clinics	30 attendances (5 at least in hospitals)
Child welfare clinics	50 attendances
Instruction and practice in home visiting and record writing and in school health	200 hours
Health talks	8 each
Sewing classes	20 attendances
Training dais and supervision of their practice	5 classes for student dais

Vaccinations	25 vaccinations each
School medical inspection	6 attendances
Pharmacy practical	48 hours

Observation visits

These should take place at appropriate stages of the course. A class should be held before a visit to introduce the subject. A discussion class should be held after the visit. Students may be asked to write an account of each visit. Visits should include as far as possible:-

- Water Works;
- Sewage disposal;
- Provincial laboratory (in connection with testing of water supply, adulteration of food etc);
- Food inspection;
- Slaughter house;
- Dairy farm;
- Pasteurisation plant;
- Housing - slums and Improvement Trust houses;
- Creches;
- Nursery school and child health centres, urban and rural (other than those used for teaching by the Health School);
- Tuberculosis clinic;
- Infectious diseases hospital;
- Kasturba Gandhi Trust training centres;
- A factory;
- Any other social agencies.

APPENDIX IIApproximate Expenditure on Training of Nurses
and Auxiliary Nurse-MidwivesA. Nurses(a) Non-Recurring

(i) Hostel accommodation per student	R\$. 5,000.00
(ii) School Building (for 50 students for full course)	R\$. 100,000.00

(b) Recurring

Cost of training each student for the full course	R\$. 7,000.00
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B. Auxiliary Nurse-Midwives(a) Non-Recurring

(i) Hostel accommodation per student	R\$. 4,000.00
(ii) School Building (for 60 students for full course)	R\$. 50,000.00

(b) Recurring

Cost of training each student for the full course	R\$. 3,000.00
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Note: Data were informally ascertained from several sources.

Source: Directorate General of Health Services.