

Report  
OF  
Borsad Plague Relief  
Inquiry Committee

PUBLISHED BY  
THE PLAGUE RELIEF COMMITTEE  
BORSAD

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1935

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Patel, Secretary, Plague Relief Committee, Borsad,

**ONE RUPEE**

Madras  
18th October 1935

DEAR FRIENDS,

I am extremely obliged to you for your report on the reference made to you as per my letter of the 23rd August 1935.

I know what great labour and amount of time the work required in your busy lives. You gave both unstintingly for the sake of justice. My co-workers, including Dr. Bhaskar Patel, will ever remain grateful to you for your labour of love.

I remain,  
Ever yours gratefully,  
VALLABHBHAI PATEL

**BORSAD PLAGUE RELIEF INQUIRY  
COMMITTEE**

**BOMBAY**

**10th October, 1935**

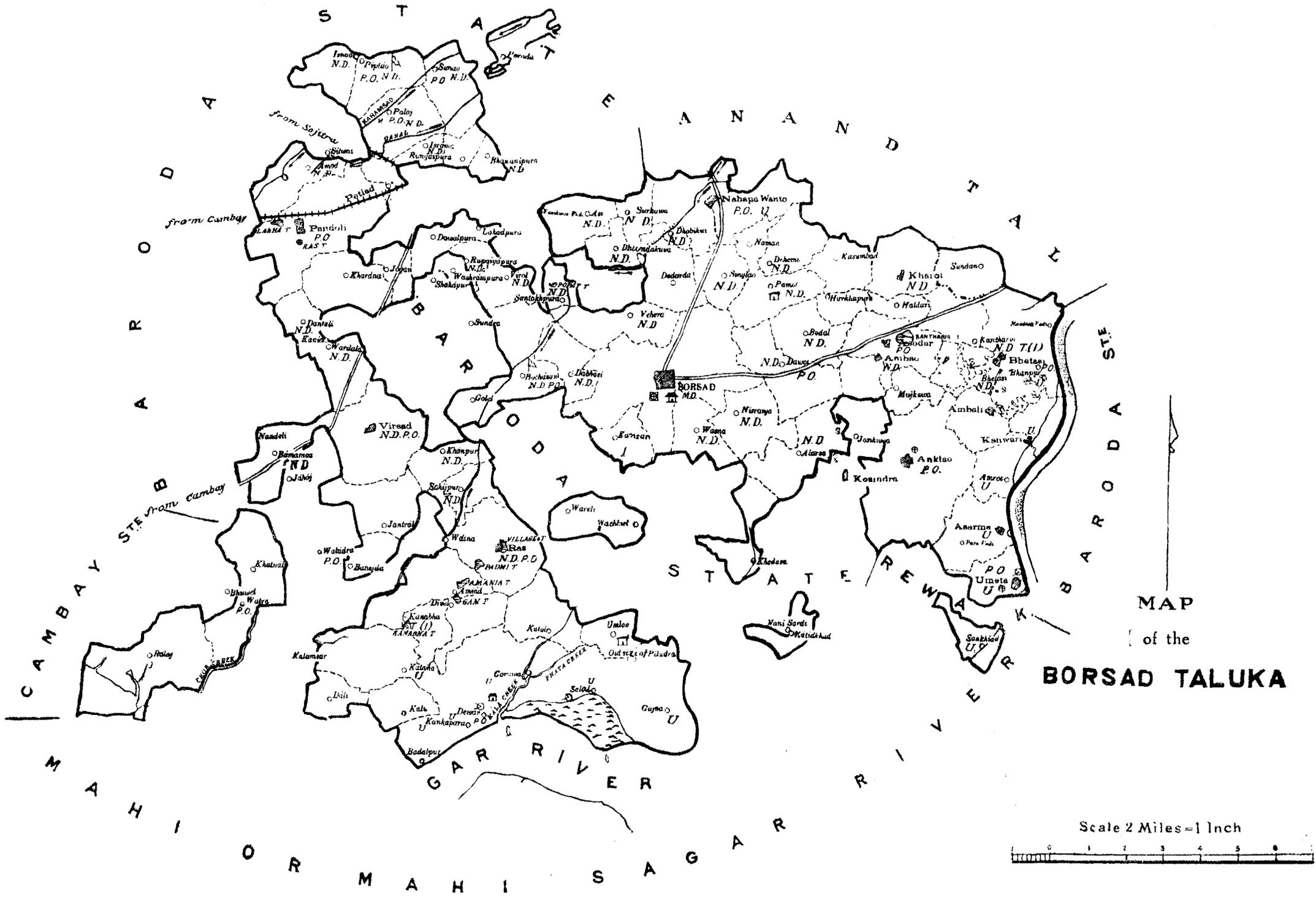
**DEAR SARDAR VALLABHBHAI,**

With reference to your letter dated 23rd August 1935 appointing a Committee to inquire into various charges and counter-charges in connection with the recent outbreak of plague in Borsad, I write this to inform you that the Committee have completed their task. I have much pleasure in forwarding herewith a copy of the Report of the Committee together with a Note by the Medical Members of the Committee. This latter deals with the last point mentioned in your letter, namely, suggestions for the guidance of Congress volunteers who may have to deal with similar epidemics in future.

**Yours sincerely,  
VAIKUNTH L. MEHTA  
Secretary**

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MAP  
of the  
**BORSAD TALUKA**

Scale 2 Miles = 1 Inch



# Report of the Committee

By a communication dated 23rd August 1935 from Sardar Vallabhbhai Patel to Mr. D. N. Bahadurji, we were asked to form a Committee to inquire into and report our findings on the matters referred to in the said letter. The text of the letter is reproduced in Appendix I and Appendices (i)\* and (ii)† referred to in the letter are reproduced under Appendix II to this Report.

It appears that plague has become endemic in the Borsad Taluka since the year 1932, and the extent of its spread and its virulence led public workers of Gujarat to direct their attention to the organisation of measures for meeting it. The gravity of the situation can be gauged by an examination of the growth of the disease as shown in the following table :

Year	No. of villages affected	No. of deaths from plague
1932	1	58 (i)
1933	10	150 (i)
1934	14	129 (i)
1935	27	949 (ii)

\* Government Press Communiqué dated 27th April 1935.

† A Note on the Plague Epidemic in Borsad by the Assistant Director of Public Health, Northern Registration District, dated 8th April 1935.

Under the leadership of Sardar Vallabhbhai Patel and Darbar Gopaldas Desai, non-official work for combating the epidemic was first taken in hand in March 1935, and reports of the plague relief campaign carried on by these workers in Borsad were published in the press from time to time. When public attention was thus drawn to the seriousness of the epidemic, the Government of Bombay issued on the 27th of April 1935 a Press Communique on the subject. This occasioned a rejoinder from Sardar Vallabhbhai Patel and Darbar Gopaldas issued on the 10th of May in which they made certain counter-allegations regarding the inaction of the various authorities responsible for safeguarding the health of the population, especially during the year 1934-35. Further communiques were issued by Government on the 27th of May 1935 and the 15th of June 1935, to which Sardar Vallabhbhai replied by his statement in the public press dated the 31st of May 1935 and by his letter dated the 3rd of July 1935 addressed to Government, all which publications show what matters were in controversy and what charges were made. These publications form Appendix III of this Report. Sardar Vallabhbhai by his letter dated the 3rd July 1935 requested Government to withdraw the charges made against himself and his co-workers, or, in the alternative, urged the appointment of a Committee of independent medical men and others capable of weighing evidence. The Government of Bombay by their letter dated

the 8th August (vide Appendix IV) declined to accept the suggestion of Sardar Vallabhbhai. By his letter dated the 12th August 1935, Sardar Vallabhbhai intimated to Government that he proposed to invite a Committee of independent persons to investigate the matter, and requested Government to authorise the Departments concerned to join in the investigation (vide Appendix V). As mentioned at the outset, on the 23rd of August he invited us to form ourselves into a Committee.

On behalf of the Committee, a letter was addressed on the 25th of August 1935 to Government inviting their co-operation. To this letter, no reply was received by us, but a communication dated the 3rd September 1935, in reply to his letter dated the 12th August 1935, was received by Sardar Vallabhbhai to the effect that Government were not desirous to co-operate in the inquiry.\*

We have held several meetings, and two of us, Dr. M. D. D. Gilder and Dr. P. C. Bharucha, also visited several parts of the affected area. We have examined orally six witnesses, to whom our thanks are due for the assistance they have rendered in enabling us to elucidate facts.

\* After the Committee's work was completed, a letter dated the 29th September 1935 was received from Government drawing our attention to their letter to Sardar Vallabhbhai in which they had expressed their inability to be associated with the Committee's inquiry.

It may be alleged that the inquiry of the Committee was wholly *ex parte*, by reason of the Government not having chosen to join in the inquiry. But the real position is not such; for, the main evidence in the inquiry has been that of public records, from the beginning of 1932 upto May 1935, which consist, as we are informed, of all the official communications (either originals or their duplicates or their copies) between all the Departments of Government, on the one hand, and, on the other, the District Local Board, on whom, mainly, "the responsibility for dealing with epidemics"<sup>1</sup> is said to rest.

It is possible that Government may have had some oral evidence to meet the oral evidence recorded in this inquiry. The oral evidence recorded in this inquiry mainly relates to the two incidents mentioned in Charge No. 10 and the accusation by the Government of discourtesy and unwillingness to co-operate on the part of the Congress workers. If Government were unwilling to co-operate with us, it is obvious that we had no alternative but to proceed with our work without their help.

We now proceed to deal *seriatim* with the charges contained in Appendix II. (Summary of Charges).

1. Reviews of Administration in the Bombay Presidency; 1938  
p. 812.

**CHARGE No. 1**

“That the Government and the local bodies failed to take prompt and proper preventive measures during the years 1932-35 and allowed the disease to grow in intensity and extent; that a Special Medical Officer was without any adequate equipment appointed in 1932 as late as September when there had already been several fatal cases before the end of April of that year, that in 1934 a Special Officer was appointed in March though the epidemic had broken out in December 1933, and that in 1935 the Government waited until the 3rd of April for the appointment of a Special Officer though the outbreak was reported as early as 21st October; that while in 1932 one Special Officer was deemed to be necessary for one village, in 1935 one Special Officer was expected to deal with 27 villages.”

We have had the advantage of complete files of the District Local Board for the years 1932 to 1935 appertaining to the outbreak of plague and other epidemic diseases in Borsad Taluka, produced before us. These files afford sufficient evidence as to the correctness of this charge.

As an instance illustrative of the work done in connection with plague, we shall examine the case of the village of Porda where plague first broke out in Borsad Taluka. The Assistant Director of Public Health by his letter addressed to the Mamlatdar of Borsad dated the 29th January 1932, enclosing therein a cutting from the

"Bombay Samachar" of the 23rd of January 1932, which reported the outbreak of plague in Porda, inquired whether the report was correct. At first, it was reported by the Mamlatdar that there was no outbreak of plague, but he found "rat fleas in abundance." Next, we find from the same files that the Collector, not being satisfied with the report of the Mamlatdar, asked for more definite information. The Mamlatdar's reply was that an outbreak of plague was likely, but he gave no reasons for saying so. It was not until the 30th of March 1932 that the Mamlatdar reported that there was an outbreak of plague, by which time, probably, there were already several deaths from plague.

The Medical Officer of Virsad, as it appears from the files, visited Porda on the 1st of April 1933 and reported the prevalence of pneumonic type of plague and that rats died in large numbers. From that date until August of the same year we can gather no information from the files as to what action, if any, was taken in respect of the prevalence of plague. It appears from the files that though the Mamlatdar telegraphed to the President, District Local Board, on the 22nd of August 1932, that cholera had broken out at Porda, the Medical Officer of Virsad, when he visited the place on the 24th of August, reported that he saw cases of plague with buboes and ascertained on inquiry that 7 deaths from plague had already taken place. He also stated in the

same report that cholera was prevalent. Then, it appears, that on the 30th of August, the Assistant Director of Public Health visited Porda and this is what he states in his report to the Collector of Kaira dated the 1st September 1932 :

“Plague was prevalent in this village (Porda) in April 1932 and the present outbreak is a recrudescence from the previous outbreak. The first attack in the present outbreak occurred on 9-8-32 and was taken to be cholera and subsequent cases were also reported as cholera till the Medical Officer, Virsad Dispensary, visited the village on 24-8-32 and reported to the Mamlatdar that cholera and plague were prevalent in the village.

“The outbreak is so far limited to one part of the village and Dharalas are the worst sufferers; in this caste alone 16 attacks and 11 deaths have occurred. This locality is now almost completely evacuated.

“As to the preventive measures, no inoculation has yet been performed and no houses and clothing have been disinfected. The preventive measures were directed against cholera. . . .”

It may be noticed that, according to this report, the first case of plague which was taken to be cholera occurred on the 9th of August 1932, which was not reported by the Mamlatdar till the 22nd of August 1932.

It would appear that in consequence of the report, the President of the District Local Board appointed a Medical Officer on special plague duty, presumably, for inoculation work. This Officer received on the 2nd of September an inoculation outfit box. His letters of complaint to the President, District Local Board, and the Assistant Director of Public Health, show so many defects in the box supplied, either as regards the syringe in the box or the needles in the box or the vaccine supplied, that he could not satisfactorily do the work of inoculation till the 11th of September.

Though the use of rat traps was directed by the Assistant Director of Public Health, it appears from the files that not until the 19th of September rat traps—12 only in number—were supplied. Of these 12 rat traps, 8 were withdrawn on the 27th of September, so that the whole village was left with 4 rat traps to do the work of destroying rats. It further appears from the daily reports of the Special Medical Officer, going upto the 20th of October 1932, that no rats whatsoever were trapped.

As regards the work of disinfection, the files disclose a state of affairs which is not unlike the work of inoculation or rat trapping as above described.

The Medical Officer was relieved of his duties on the 20th of October 1932. From the 1st of September to the 20th of October 1932, it appears

from the files that he inoculated between 300 and 400 persons out of a population of 1500 and got disinfected about 300 houses out of about 500 in the village.

After the 20th of October, the only care and attention, as appears from the files, that were given to this village were to direct the Doctor attached to the dispensary at Virsad to visit Porda once a week.

About the end of 1932, plague broke out in various villages of Borsad Taluka among the first to be affected being Porda, which was the only one village affected previously, and Sunav, a neighbouring village. An examination of the District Local Board files shows that the work done to combat plague in the way of rat destruction or inoculation or evacuation of houses was in no way better than the work done in the previous year. In this year also, the Special Medical Officer in charge of plague operations appointed by the District Local Board has similar complaints to make about the inoculation outfit box supplied to him, and he complains, moreover, that he received no help in his work from the village officers.

It also appears from the files that the reports made with regard to the disinfection of houses by the Plague Inspector are more imaginary than real. From his reports he appears to have disinfected daily exactly 50 houses in each of the three villages—that is, 150 houses in all every day—to

which he went from day to day between the 20th of March 1933 and the 2nd of April 1933. The three villages referred to in his reports are Saijpur, Virsad and Ras; they are about 3 miles apart from each other. If his reports are to be believed, he disinfected 150 houses every day going over a distance of 6 miles. It does not appear from the files if he was given any assistance by the District Local Board in doing this work. It is unnecessary to go further into the details. The work done during that year is summarised by the Assistant Director of Public Health in his Note dated the 18th March 1933, and we would prefer to quote his exact words on this point :

“In the villages where plague is very prevalent failure to bring it under control is due to want of co-operation of the people. Inoculation has not made much progress. . . . Only a portion of the population has been protected. Houses have not been evacuated and where people have gone out, the houses are visited during the day to transact business. No attempt has practically been made to kill rats. The traps supplied by the District Local Board are not much used and if rats are found in the traps they are let loose in another locality. The traps are not of good type. In short, there is no organised campaign against the epidemic and although the District Local Board has expended some money, for want

of co-operation, very little success has been achieved. ”

It appears from another part of the report above quoted that the Assistant Director of Public Health had considered that an additional Medical Officer was necessary and had obtained sanction from the Director of Public Health for such an appointment at Government expense. Such an Officer was, as a matter of fact, appointed on or about the 22nd of March 1933 and it appears from the files that he took charge of his duties on or about the 26th of March. On taking charge, he wrote on the 27th of March to the President of the District Local Board requisitioning the supply of medicines and other requisites for the performance of his duties. The President of the District Local Board, by his letter of the 31st of March 1933, referred him for the requisitions that he had made to the Assistant Director of Public Health by whom his appointment was made. Whether his requisitions were complied with or not we have no information.

It may be noted here that, according to the report of the Assistant Director of Public Health dated the 8th April 1935, no cases of plague had occurred in Borsad Taluka after the end of March 1933, so that the appointment of this additional Medical Officer by the Assistant Director of Public Health on the 22nd of March 1933, obviously was at a stage when plague had practically run its course. However, this additional doctor who, as

we have stated above, took charge on the 26th of March 1933, continued at his post until the 23rd of April 1933, when he was ordered to hand over charge.

The files show that between April 1933 and the end of October 1933, which, according to Government, is the rest period for plague, no preventive or precautionary measures against the recrudescence of plague were at all taken.

Apart from two isolated cases of imported plague at the end of October 1933, it appears from the files that plague reappeared in some parts of the Borsad Taluka in December 1933 and was making its usual progress.

Amongst the villages in this Taluka, the worst sufferer, for want of adequate measures to combat plague, was Kasari. It appears from the files that plague broke out there on the 8th of December 1933. This was reported on the 12th of December and the Medical Officer of Virsad went there on the 15th of December. In his report dated the 16th December 1933, this Medical Officer describes the condition prevailing in this village and strongly recommended the appointment of a Special Plague Officer as he feared there would a spread of plague. He intimated in that report that it was not possible for him to visit all plague-infected villages, and said "I have to attend the Dispensary work, to look after medico-legal and post mortem cases and to attend the Magistrate's court very often."

Between the 16th of December 1933 and the 31st of January 1934, it does not appear if any such Medical Officer was appointed or any Medical Officer visited the place. On the 30th of January, the Mamlatdar wired to the President, District Local Board: "plague outbreak again at Kasari; some attacks, three deaths." On receipt of this wire, the Medical Officer attached to the Virsad Dispensary was again directed to visit the place and he made the usual kind of report.

In the course of this epidemic there were 85 attacks and 64 deaths in a population of about 800 people and all the work that was done in connection with this epidemic appears to be, according to the same Virsad Medical Officer's report, that 63 persons in all were inoculated and measures of disinfection of houses were taken.

As regards the work of disinfection of houses, it is difficult to attach any credence to the reports of the Medical Officer, for, in his reports to the President, District Local Board, dated the 16th December 1933 and the 3rd February 1934 after his visits to this place, he states that the total number of houses in the village is 150, yet in his report dated the 9th February 1934 he says that on that day he disinfected in this village 210 houses! It may also be noted that during the epidemic which carried away 64 people, the number of rats killed was 67.

Though plague broke out on the 8th of December 1933, no Special Officer for plague duty

was appointed until about the 7th of March 1934 when plague was already on its decline. The last case of plague in the village of Kasari occurred on the 10th of April 1934 and in the whole Taluka on the 24th of April 1934.

As in the previous years, so also in this year, during the rest period of plague, that is between the end of April and the beginning of October 1934, no preventive or precautionary measures appear to have been taken by the authorities.

As regards the epidemic of 1934-35, though it had broken out in several parts of the Borsad Taluka in the month of October 1934, a Special Medical Officer to combat plague was appointed only on the 3rd of April 1935, and he took charge of his duties on the 5th of April. By that time the total plague mortality had reached the figure of nearly 900,<sup>1</sup> including the mortality in Borsad town. It appears from the files that the epidemic subsided about the middle of May 1935. How belated the appointment of the Special Medical Officer was can be judged from the fact that whereas the total number of deaths upto the 6th of April was about 900, the total number of deaths between the 6th of April and the subsidence of the epidemic in about the middle of May was only

1. A Note on the Plague Epidemic in Borsad by the Assistant Director of Public Health, Northern Registration District, dated 8th April 1935.

52.<sup>1</sup> It also appears from the same records that whereas in 1932, the Special Plague Officer had to look after one affected village, the Special Officer in April 1935 had to look after 27 affected villages.

It may be mentioned here that an additional plague officer (whom we shall have occasion to refer to later) was appointed on the 20th of April 1935, but he was removed for reasons, appearing in the files, on the 14th of May 1935.

### CHARGE No. 2

“That the work of inoculation was woefully neglected, the ordinary Medical Officer at Virsad being expected to deal with the whole rural area. He performed 3000 inoculations in the six months between October and April. The Special Officer was appointed when the disease was admittedly on the wane. This Officer performed 2000 inoculations within the space of five weeks. The epidemic could have been substantially controlled if this Officer had been appointed immediately after the outbreak. The remark applies with equal force to the case of Borsad town where no Special Medical Officer was appointed and the Medical Officer in charge of the Municipal dispensary had to perform all the inoculations. He could not do more than 5000 in six months.”

1. Press Notes issued by the Director of Information: p. 117, 26-4-35; p. 121, 8-5-35; p. 129, 10-5-35; p. 136, 17-5-35; and p. 140, 24-5-35.

The facts and figures on which this charge is based are admitted by Government themselves in their communiques dated the 27th April and 27th May.

The Virsad Medical Officer to whom, in the words of the communique, "the work of inoculation was entrusted," was expected to cope with the work in the whole Taluka, in addition to his own normal duties. No wonder that he could not perform more than 3000 inoculations in a total population of 55 to 60 thousand. The two Special Medical Officers appointed in this behalf started work as late as the 5th and the 20th of April, respectively, and they accounted for only 2305 inoculations in all. The Medical Officer in charge of the Borsad Municipality had to cope with the whole town single-handed—as he did not have the assistance of any Special Medical Officer—and hence he too could not do more than he had done.

It is important to note that the rural population was not averse to inoculation. On the contrary, the people were anxious to have inoculators sent to them, and on more occasions than one sent largely signed petitions<sup>1</sup> to the President, Taluka Local Board, asking him to arrange for inoculators to be sent to their villages.

These petitions were sent at a time when inoculation would have been most serviceable.

1. Petitions dated 27th and 30th December 1934 from the villages of Nisaraya and Vaena, respectively.

The authorities failed to take advantage of the expressed willingness of the people to be inoculated. The Government in their communique of the 27th of May 1935 seek to explain this failure on the part of the authorities and this consequent paucity of inoculations in words, however guardedly used, which amount to a confession of the charge made against them. The communique says :

“It should be noted in appreciating the real value of the number of inoculations performed by these Medical Officers that plague was dying out when these inoculations were done. It is extremely difficult to get people to submit to inoculation at this stage of the course of epidemic.”

### CHARGE No. 3

“That the inoculations done by Dr. Shah, appointed by the Director of Public Health, were so badly done that many people suffered from excruciating after-effects and that the doctor had to be removed, after he had performed only 300 inoculations, on grounds of incompetence.”

This charge is clearly established by the documents contained in the District Local Board files. It appears that a complaint was made in writing on the 5th of May 1935 by a number of persons

to the President of the Taluka Local Board, who appears from his communication dated the 6th May 1935 to the President, District Local Board, to have had personal knowledge of the complaints made by the people, as to the manner and method of work of Dr. Shah, and on the recommendation of the President, District Local Board, dated the 11th May 1935, Dr. Shah's services seem to have been terminated on the 14th of May 1935.

#### CHARGE No. 4

“That though the Government admit that ‘plague preventive measures are most effective, when they are undertaken systematically in the inter-epidemic periods, *i.e.*, months when no plague cases are occurring,’ they had taken no such remedial measures in the inter-epidemic periods of 1932, 1933 and 1934.”

The files for the years 1932-33-34 have been carefully examined by us and we can find no evidence from the materials placed before us of any preventive measures having been undertaken during the inter-epidemic ‘periods of any of the years in which plague had affected the Borsad Taluka. In fact, it appears that the inter-epidemic measures were for the first time recommended by the Director of Public Health at the end of May 1935.

**CHARGE No. 5**

“That though the belated grant of Rs. 2,000 was made for ‘the specific purpose of getting the whole town of Borsad disinfected and fumigated with sulphur *before* the people returned to their homes’, hurried attempts were made to use this grant *after* the people had returned to their homes.”

The accusation contained in the charge is that the grant of Rs. 2,000 made “for the specific purpose of getting the whole town of Borsad disinfected and fumigated with sulphur before the people returned to their homes” was made so late in the day that it could not possibly be used for that specific purpose as the people had already begun to return and occupy their houses. That it could not be so used, appears from the Government’s own statement of the work of disinfection and fumigation of houses from and after the date of the grant. That statement of Government appears in their communique dated the 27th May 1935, according to which 988 houses were disinfected and 279 houses were fumigated out of a total of about 4,500 houses in the town.

We have had it in the evidence of Darbar Gopaldas Desai, President of the District Local Board, and Dr. Bhaskar Patel that the people of the town had begun returning and in fact had occupied their houses in large numbers before the work of

disinfection and fumigation above referred to, was taken in hand by the Government.

At the time of the visit of the Collector on the 31st of March, the President of the Municipality, according to the evidence of Mr. Jhaverbhai Dajibhai Patel, President of the Taluka Local Board, pressed the Collector to assist the Municipality by a grant for carrying on their plague relief measures more effectively. The Collector, according to the same evidence, while not making any promise conveyed that the obtaining of the grant would take some time. The grant made was for the first time announced by the Government in their Press Note of the 27th of April 1935 and the work of disinfection for which the grant was made, according to the evidence before us, was started on the 25th of April 1935.

We may note here that the total number of deaths in Borsad town in this epidemic, according to the report of the Mamlatdar dated the 30th May 1935, was 328, and the total number of deaths up to the 5th of April 1935, according to the Assistant Director of Public Health<sup>1</sup>, was 319, figures which prove completely that the grant made was at the end of the plague epidemic.

1. A Note on the Plague Epidemic in Borsad by the Assistant Director of Public Health, Northern Registration District, dated 8th April 1935.

**CHARGE No. 6**

“That the doctors appointed by the District Local Board or the Public Health Department treated no plague patients.”

Among the doctors appointed by the District Local Board was the doctor attached to the Virsad Dispensary, Dr. Purohit. We have seen his reports beginning from the 2nd of October 1934 and ending with the 30th of March 1935 and we find that none of his reports mentions his having treated any plague patients. His reports deal generally with what he did in connection with either the inoculation of people or the disinfection of houses with kerosene emulsion, or with rat mortality.

The additional doctor appointed on the 3rd of April by the District Local Board was Dr. M. R. Pradhan. We have also examined his weekly reports which are only two, one on the 14th of April and the other on the 21st of April 1935; neither of these speaks of his having treated any plague patients but they deal only with his inoculation work.

The next doctor appointed by the Public Health Department was Dr. Shah—already referred to above—and there does not appear in the records of the Local Board any evidence that he treated any plague patients.

Further, we have the evidence of Dr. Bhaskar Patel on this point and he says: “I saw many

cases of plague in the villages. Amongst these cases there were some of long duration. I did not find any of these cases having been treated at all."

It thus becomes clear from the evidence above referred to that plague patients received no treatment during the whole period of the epidemic, that is, 1934-35.

### CHARGE No. 7

"That in Vachhial, a village with a population of 550 people, plague broke out in the first week of January; the infection was allowed to spread for a month, and that there were 9 deaths before there was any report. The Medical Officer at Virsad visited the place on the 6th February, disinfected two houses and inoculated 11 persons. Since then no one had been there and there had been 26 fresh deaths."

As regards this charge, Dr. Bhaskar Patel states in his evidence that he visited the village of Vachhial on the 6th of May 1935. On this occasion, he inspected the death register of this village for the month of January. He has produced a copy of the said register which he personally checked, and he says that it appears from the death register that there were 9 deaths from plague in this village in that month.

However, the outbreak of plague in Vachhial was not reported until the 1st of February 1935,

and even in that report the Mamlatdar mentions that only 2 deaths from plague had taken place. It is surprising that, though the village register upto that date records 9 deaths from plague having taken place, the Mamlatdar should have reported about the outbreak of plague only on the 1st of February and reported that only two deaths from plague had occurred upto that time. It also appears from the files of the District Local Board that the Medical Officer of Virsad Dispensary visited Vachhial for the first time on the 6th of February 1935 and on that occasion all the work he did in connection with plague was that he disinfected 4 or 5 houses and inoculated 11 persons. On further examining the files of the District Local Board, we find from the Mamlatdar's report to the President of the District Local Board, dated the 30th May 1935, that there were 27 attacks and 26 deaths in that village, which, we have been informed, has a total population of about 600 persons, but it does not appear from the District Local Board's files that any doctor or any other persons entrusted with plague duty had visited this place since the 6th of February 1935.

### CHARGE No. 8

"That the Mamlatdar of Borsad took no steps to remove or isolate the 27 immigrants from plague-affected Petlad in October, and that it was

not until 5th April when there had been already nearly 300 deaths that he thought fit to call a conference of the Presidents of the Local Boards and of the Municipality and of the Medical Officers at Virsad and Borsad."

The Government themselves in their communique dated the 15th June 1935 admit that only 5 persons out of the 27 immigrants from Petlad were inoculated. The communique, however, omits to state what steps, if any, had been taken for removing or isolating any of these 27 immigrants and inoculating the remaining 22.

Although the charge states that deaths upto the 5th of April were about 300, on examination of the records we find that the total number of deaths in Borsad Town alone was 319 and the total number of deaths in the rural area, according to the statement of the Assistant Director of Public Health dated the 8th April, was 578.

It would appear that it was only when it was found that the number of deaths from plague was very large that the officials responsible for combating plague thought of meeting together and determining in conference what measures should be adopted to meet the situation. A scrutiny of the report of the conference in the files of the District Local Board shows that the conference resolved upon certain measures to be adopted. After laying down what various methods were to be adopted, what special officers were to be appointed, the conference directed that the Special

Medical Officers should "send their detailed and consolidated weekly reports to the President of the District Local Board." On looking through the files to see whether the programme of work indicated by the conference as necessary was, as a matter of fact, carried out, we find that the only thing done was that only one of the two Special Medical Officers appointed made his report for two succeeding weeks only, merely stating the number of persons he had inoculated.

### CHARGE No. 9

"That the Collector and the Assistant Director of Public Health had paid no visit to the area until the 31st of March ( five months after the outbreak ) when they paid their first flying visit."

With regard to this charge there is nothing to be stated, except the fact that the truth of the charge is clearly manifest from the records of the District Local Board.

### CHARGE No. 10

"The Government claim that their measures are 'scientific and based upon prolonged experience, of the best measures, possessed only by the Public Health Department.'

"Here are a few facts :

(1) The Municipal staff in Borsad, advised by the Public Health Department, prepared the kerosene emulsion so clumsily that a girl of 13 years was almost burnt alive and died soon after in the hospital, a child and one of the two inspectors were badly burnt and the other inspector was so suffocated by hot kerosene fumes that he had to be carried to the hospital in an unconscious condition. As a result the Municipality stopped this work.

(2) When the work was restarted under the supervision of the Medical Officer and Sanitary Inspector specially deputed by the Assistant Director of Public Health, these officers so mishandled a tin utensil that they narrowly escaped an explosion.

(3) Dr. Shah, the Special Officer for inoculations, had to be recalled for incompetence."

As regards item No. (1) in this charge we are of opinion that it is clearly established by the evidence of Sjt. Kanchanlal Girjashanker. He is the brother of one of the two girls who were seriously burnt in consequence of the negligence of the man who was preparing kerosene emulsion for disinfecting purposes. He gave his evidence in a simple but graphic manner and we formed the opinion that he was perfectly truthful. What he says in his evidence may be summarised as under : "That about 8 months ago, the Municipal people were preparing kerosene emulsion and his sister had gone there to fetch some emulsion. He was standing behind the women who were gathered

there to get their quota of emulsion. A big fire was blazing. And in the act of distributing emulsion from the emulsion pan some of the emulsion fell into the fire. The emulsion pan was set ablaze igniting the clothes of those standing nearest to the emulsion pan. The man who was preparing the emulsion got suffocated by the fumes of kerosene emanating from the lighted pan and his own sister's and another Shrivak girl's clothes caught fire. The Shrivak girl died as a result of the injuries she received, but his own sister and the man who was preparing the emulsion recovered from the effects of their injuries." He also says that a boy of 12 years who was standing near the pan got his arm so seriously burnt that he is unable even now to straighten it from the elbow.

As regards item No. (2) in this charge, we have got the evidence of Dr. Bhaskar Patel, who was present at the time the incident happened.

As regards item No. (3) in this charge, it is already covered by our remarks on Charge No. 3.

#### APPENDIX II (b)

"As regards Borsad Town immigration of 27 Golas from plague-affected Petlad was reported to the Mamlatdar who is an ex-officio member of the Borsad Municipality, as early as 7th October 1934.

No attempt was made to remove them or isolate them or even to inoculate them and it is they who started the infection which has ended in 327 deaths.

"There had been cases of plague in Bochasan before the 29th March. Our doctor had attended to two of them and had already drawn the attention of the Patel to the grave situation and initiated preventive measures. Our daily bulletin of the 6th April had already a reference to this. But the Mamlatdar ignored all this and took a statement on the 12th April from the Patel and a few others that there was no plague there and that nothing had to be done in that village, though our workers were busy working there in front of his eyes. When, however, the Medical Officer, on receiving complaints from the people reported to him the next day that there were several plague cases in the village, he was compelled to send a wire to the President, District Local Board."

The charge in the first paragraph has been disposed of by us when dealing with the Charge No. 8 above.

As regards the outbreak of plague appearing in Bochasan referred to in Appendix II(b), the complaint made that though plague broke out on the 29th of March, the Mamlatdar did not report until the 14th of April, is completely established, apart from the evidence of Dr. Bhaskar Patel on the point, by the report of the President of the District Local Board to the Collector under date 13th May 1935. It appears that the Collector by his

communication of the 15th of April inquired of the President of the District Local Board what measures had been taken in respect of the outbreak of plague at Bochasan. The Collector's communication runs thus :

“The Collector of Kaira presents compliments to the President, District Local Board, Nadiad, and has the honour to inform him that three attacks on account of plague had been reported at Bochasan, Taluka Borsad. He is, therefore, kindly requested to arrange for taking prompt measures to check further spread of the epidemic. As Bochasan is a pilgrim centre of Swaminarayan sect, the President should please manage for immediate medical aid as regards disinfection, inoculation etc

As the report of the President of the District Local Board makes interesting reading, showing what was the method of work of the Mamlatdar, we think it necessary to quote from that report :

“The President, Kaira District Local Board, presents compliments to the Collector of Kaira and has the honour to inform him with reference to his Memorandum No. M. E. D. 63 dated 15-4-35 as under :

“The outbreak of plague at Bochasan was first noticed by Sardar Vallabhbai Patel and Dr. Bhaskar Patel as early as

29th March when they had visited the village and examined 2 patients in one locality which was found to be infected. People of that locality were advised evacuation at once. The Police Patel was present, but he made no report about it. Two days after this, Dr. Bhaskar Patel again visited the village and found that there had been two deaths and some more attacks. This outbreak was not reported even then and the matter was published in the daily bulletin of the Relief Camp<sup>1</sup> in its issue of the 6th April. No notice, however, was taken of this fact although Bochasan is a pilgrim centre and prompt measures for checking further spread of the epidemic were necessary as stated in the Collector's Memorandum. It is to be regretted that on the 12th April the Mamlatdar took a statement of the Patel and some other people to the effect that there was no plague in the village and nothing was required to be done, while at that very moment the volunteers of the Relief Camp were actually engaged in disinfecting the village. It was on the 14th April that the Mamlatdar eventually sent the information of the outbreak for the first

1. The Relief Camp referred to here was the Congress Relief Camp working under the directions of Sardar Vallabhbhai Patel and Darbar Gopaldas Desai.

time to the President, District Local Board, although the Government orders require him to send such information immediately. Fortunately, the Relief Camp was active and they started disinfection and cleaning the whole village immediately and thus succeeded in preventing the spread of the epidemic. It is to be regretted that the Patel who knew that disinfection and other works were being done in the village by the Relief Camp volunteers, did not even care to report the outbreak of the epidemic in the village and the Mamlatdar in his turn thought fit to discredit the information published in the Camp Bulletin of the 6th April, with the result that the outbreak was not reported to the authorities concerned, till about a fortnight after it was first noticed.

“As all measures required to be taken have been promptly taken by the Relief Agency and as the epidemic is already under control, nothing more is required to be done by the District Local Board.”

It will be seen that the parties primarily responsible to combat plague had done nothing; and it was the Congress volunteers, according to the President's report, who shouldered the responsibility and left nothing to be done by the District Local Board.

## APPENDIX II (a)

Appendix II (a) relates to the charges made by Government in regard to (1) the method of work of the Congress workers and (2) the alleged unwillingness to co-operate on the part of the Congress workers and the receiving of open discourtesy from them.

As regards the method of work, Government say that the Congress workers allowed "patients actually suffering from plague to be removed from their villages and carried in motor cars over bad roads to the Congress Hospital."

Dr. Bhaskar Patel was examined on this point. He says that he is not aware of any patients being brought to the hospital in motor cars. But he says that even if they were so brought to the hospital, the hospital records show that they did not suffer from any evil consequences on that account.

Dr. Bhaskar Patel says that the hospital was erected and fitted up by the 1st of April 1935 and was finally closed down in about the middle of May 1935.

Dr. Bhaskar Patel produced his hospital records which show that during the time the hospital worked, 16 plague patients were received of whom 2 died, 12 recovered, and out of the 2 who left the hospital at their own desire and against the wishes of the hospital authorities (Dr. Bhaskar Patel says that he had no power to detain patients

in the hospital against their will) one died at his home the day after he left the hospital and the other after 3 or 4 days. This latter, as a matter of fact, was treated at her home for 3 or 4 days by Dr. Bhaskar Patel.

As regards the one who died the day after his leaving the hospital, in addition to Dr. Bhaskar Patel's evidence, we have the evidence of Mr. Dawood Karim, the brother of the deceased who says that Gafoor, the patient, died at his home the next day after he was taken back from the hospital and in this he is corroborated also by another witness, Mr. Bhanuprasad Narasinh Pandya.

The hospital records further show the villages from which the 16 patients had come. These villages are situated along the Borsad-Vasad and Borsad-Anand roads and the evidence shows that these two roads are well constructed metalled roads, and that the villages are situated almost, if not entirely, on these roads; moreover, the farthest of these villages was only 8 miles from the Congress plague hospital.<sup>1</sup>

From the above evidence it is clear that the charge made by Government against the Congress workers is wholly unfounded.

1. Two of the members of this Committee, Dr. Gilder and Dr. Bharucha, who visited, in the course of this Inquiry, the site of the hospital and various villages which were affected, are in a position to state, of their own knowledge, that the above two roads, namely, the Borsad-Vasad and Borsad-Anand roads are metalled roads and in good condition.

It is difficult to understand what Government mean by "their distrust of some of the forms of treatment adopted by the Congress workers." Dr. Bhaskar Patel says that he did not understand what the allusion was, and he added that the first time that the Assistant Director of Public Health visited the Congress hospital was on the 2nd of April 1935, when the hospital, though fully equipped, was yet without any patients; and that thereafter the Assistant Director of Public Health never again came to the hospital, so as to enable him to know or to ascertain, "the forms of treatment of plague."

Dr. Bhaskar Patel has detailed in his evidence the clinical treatment given to his patients, and we are of opinion that the 'form' of clinical treatment he adopted has been the right treatment. We think the record of the hospital as regards the recovery of patients treated there, is one of which any hospital would be proud.

With regard to the charge of unwillingness to co-operate on the part of Congress workers and their alleged "open discourtesy," we have got the evidence of Dr. Bhaskar Patel. According to his evidence, the charge is unfounded. His evidence amounts to this: That at no time did the Government Officials come in contact with the Congress workers when working in different villages, so as to afford the Congress workers an opportunity to show any discourtesy to Government Officials. His evidence is corroborated on this point by that of

Mr. Jhaverbhai Dajibhai Patel, the President of the Taluka Local Board, and on this point his evidence is of considerable importance as he says that "on the three occasions when the Assistant Director of Public Health visited any of the villages, he, the President of the Taluka Local Board, was with him and that he had never noticed any discourtesy from the Congress workers; he further added that the Assistant Director of Public Health had never complained to him of any discourtesy from the Congress workers.

With regard to the charge of unwillingness to co-operate, Dr. Bhaskar Patel in his evidence says that on one occasion he happened to meet the Assistant Director of Public health, Dr. Shiveshwarkar, when he was on his way to see some plague patients in Pandoli. He requested Dr. Shiveshwarkar to accompany him to see the patients, but Dr. Shiveshwarkar declined to go with him.\* Dr. Bhaskar Patel also says that when Dr. Shiveshwarkar visited the plague hospital on the 2nd of April 1935 he took him to Sardar Vallabh-bhai Patel who was then lying ill in bed. On that occasion, Sardar Vallabh-bhai speaking to Dr. Shiveshwarkar said that the Congress workers would give willing co-operation to the Health Department of Government. In this, Dr. Bhaskar Patel is fully corroborated by the evidence of the President of the Taluka Local Board.

\* Vide Charge No. 11.

## CONCLUSION

From what we have stated, so far as regards the charges and evidence thereon, the results appear to be that during the inter-epidemic periods in the years 1932-33-34, the authorities concerned failed to adopt even the measures that the Government recommended in their communique dated the 27th May 1935.

During the actual prevalence of plague, the only measures adopted were disinfection of houses to a limited extent and inoculation to a still more limited extent. We have no indication as to the extent to which evacuation was carried out and there was just some pretence at rat destruction. According to the reports of the Medical Officers, there was no clinical treatment whatsoever of any plague patients in any part of the Taluka during the years 1933-34 and upto the middle of May 1935.

The authorities do not appear to have ever attempted or even thought of fighting plague by the adoption of measures—insufficient as they are—suggested by the Assistant Director of Public Health, in his Note of the 8th April 1935. He says:

“In the month of November, mass destruction of rats should be undertaken and for this purpose the following staff and materials are required:

1. 3 Medical Officers on plague duty from the month of November to end of April @ Rs. 90 p. m.

2. 500 Rat-traps of the best pattern now made in Jails (Cost Rs. 2-4-0 each).

3. Spray pumps 1 per Inspector (Cost Rs. 30/- each).

4. Barium Carbonate @ 2 lbs. per village, about 200 lbs. (Cost Rs. 1-4-0 per lb.).

5. 4 Plague duty Inspectors @ Rs. 40 p. m. each; (to be given not more than 25 villages each).

“As stated above, the anti-plague operations to (should?) start in the month of November and systematically carried on to reach as many villages as possible by the beginning of December especially those which have been affected by plague in the past. It has been noticed that houses in Gujarat villages lend themselves readily to treatment by sulphur fumigation by the ‘Pot’ method. The plague staff engaged will be trained in this method and should help a great deal in destruction of rats and fleas. The ‘Pots’ used have been found to be conveniently made in villages and cost about Rs. 4/- a pot. 2 Pots per Inspector should be provided and sulphur at the rate of 200 lbs. per affected village. (Cost is 3 annas per lb.). Taking 20 affected villages

in the next season, the cost would come to Rs. 750/- @ Rs. 37-8-0 per village. Provision of Rs. 2,000 approximately should be made for plague vaccine. The total cost would roughly come to Rs. 7,000. . . .”

Our terms of reference confine us to an examination of several specific charges, and it is not within our province to determine the extent of Government's failure to cope with the epidemic. But we may note that the measures suggested by the Assistant Director of Public Health, as referred to above, are for the purpose of rat destruction, and there is no provision in them for the treatment of cases after an actual outbreak. It may also be noted that these proposals were made, as would appear from the same Note of the Assistant Director of Public Health, on the basis of 20 villages being affected in the next season. For this, there is hardly any warrant in view of the fact that the epidemic has been growing every year in virulence and extent, and that during the last outbreak the remotest villages in all the four corners were affected in a Taluka containing 92 villages and a population of 142046,\* with a density ranging from 600 to 700 per square mile.

As regards the specific charges dealt with by us, we find that the charges made by the Government against the Congress workers were wholly unfounded.

\* Census—1921.

With regard to the charges made by Sardar Vallabhbhai Patel, we find that the evidence tendered before us clearly establishes them.

In his letter of the 23rd August 1935, Sardar Vallabhbhai Patel requests the medical members of the Committee "to suggest measures preventive as well as curative for the guidance of the volunteers in future." In accordance with that request, a Note from Drs. Gilder and Bharucha is appended hereto.

D. N. BAHADURJI  
M. D. D. GILDER  
PHIROZ C. BHARUCHA  
VAIKUNTH L. MEHTA

## Note by the Medical Members of the Committee

In order to carry out successfully preventive measures against plague it must be recalled that the disease is primarily an epizootic of rodents, chiefly rats, conveyed from one victim to the next by the rat flea. This parasite lives on the skin of the rat and sucks its blood. When infection is introduced, the blood of a dying rat contains numerous plague bacilli, which are swallowed by the flea. When the host dies and the body begins to cool, the flea leaves it and wanders about in search of another host. It prefers a rat, but *faute de mieux* may attach itself to a human being. Plague bacilli, which have by now multiplied in its stomach, enter the human body through its bite. Human plague is thus an accident in the course of a rat epizootic. Fleas are also found in abundance in the nests of the rats where the conditions are very favourable for flea breeding.

Hence it follows that if all the rats in a locality are exterminated or rendered free from fleas, or if there is a "denial of access to man to infected rats and their fleas" or all the rats or all human beings are rendered immune to plague, the epidemic would be at an end. In the condition in which people in India live, none of these methods can be pursued to its logical conclusion. It is, therefore, necessary to follow all the methods as

far as it is possible, in the hope of minimising the danger.

In order to understand our conclusions and the suggestions we give for the procedure to be adopted in future campaigns, it is necessary to review briefly the measures hitherto employed, the extent of their success and the causes of their failure.

### RAT EXTERMINATION

Government policy is laid down in these words: "The present policy in relation to plague aims at the denial of access to man to infected rats and their fleas" \*; and we find that the Assistant Director of Public Health has in several of his communications specially emphasised the policy of rat destruction chiefly by trapping and baiting. The agent to carry out this work in Borsad Taluka was a person, called a Plague Inspector, appointed by the District Local Board; his previous qualification and experience in this line were nil; on one occasion he was a well-borer, on another, a clerk. He was paid Rs. 20 per month and his work was to go from village to village, visiting several villages in one day, to prepare kerosene oil emulsion, to disinfect and fumigate houses, to attend to general cleanliness and to destroy rats. This work is so unpleasant that one hardly finds the same man working right through an epidemic season. We

\* *Reviews of Administration, (Bombay Presidency) 1933; page 801.*

find in 1932, after several reminders, the District Local Board issued twelve traps and not long after withdrew eight of them. In 1933, the District Local Board distributed 12 traps which the Assistant Director of Public Health thought unsuitable for the purpose. In subsequent years, this authority insisted on stronger traps made with jail labour costing Rs. 2/8 each. As far as the figures are available to us, we find that the rats destroyed in the various years were returned as under, compared with the number of human cases and deaths reported:—

SOME TYPICAL CASES SHOWING HOW THE RAT  
DESTRUCTION CAMPAIGN WAS CONDUCTED

Name of village	Period of epidemic	Total No. of attacks	Total No. of deaths	Total No. of rats destroyed
Porda	Jan. 1932 to Dec. 1932	69	26	0
Saijpur	Dec. 1932 to 31st May 1933	113	50	32
Khanpur	"	54	20	8
Piplao	"	16	3	0
Valasan	"	43	18	0
Kasari	Dec. 1933 to 15th April '34	85	64	67
Khanpur	"	71	38	106
Virsad	"	87	24	130

Pandoli	Dec. 1934 to			
	6th April '35	214	101	51
Palaj	"	60	38	10
Rangipura	"	46	18	10
Porda	"	27	16	32
Dedarda	"	13	7	0

For the years 1933 and 1934 we have taken only the villages which were hardest hit. For the year 1935, there was not even the pretence at rat destruction in villages other than those mentioned. The reason obviously was that there was only one Inspector to attend to the work till the 5th of April, the other one appointed in February not having taken up his duties at all.

And even these figures of rat destruction—infinitesimal as they are compared to the rat population—are proved to be entirely illusory. We may illustrate this by quoting from Mr. Hiralal G. Dave, the Plague Inspector, who worked single-handed from November 1934 to the end of March 1935. In his letter dated 7th May 1935 to the President of the District Local Board he says:

“ તપાસ અને સફાઈના કાર્યને માટે મારે જુદા જુદા ગામે જવાનું થતું ત્યારે પ્લેગનો મરેલો ઉદર કોઈએ બહાર ફેંકી દીધેલ હોય તે પૈકીના જે મને મળી આવતા તેને ઘાસતેલ છાંટી બાળી મૂકતો અને તેવા ઉદરોની સંખ્યા હું ઉદરોના નાશના કોલમમાં લખતો. તે ઉપરાંત ગામ લોકો પાંજરામાં ઉદરોને પકડીને ગામ બહાર કાઢી આવતા તેવા ઉદરોની સંખ્યા ન્યાં ન્યાં મને જણાવવામાં આવતી તે પણ હું ઉદરોના નાશના કોલમમાં જણાવતો.

“ જીવતા ઉંદરોને પકડવાનું અગર પકડાયેલાં જીવતા ઉંદરો બાળવાનું કામ મેં કદી કર્યું નથી.”

The effect of the above is that the figure of rats destroyed appearing in this report consists of dead rats lying in the streets which he picked up and rats which he was informed were trapped by the people and let off in the fields. He emphasises that he never caught a live rat nor burnt one which was caught alive.

### RAT-BAITING

As for rat baiting by the authorities, an attempt seems to have been made only in Borsad town, and that too after the 23rd of April 1935. The Congress agency tried it with deadly effect in six villages and had then to stop it for fear of contaminating water, as poisoned rats were found dead near wells.

### DISINFECTION, FUMIGATION AND DISINFESTATION

As regards disinfection and fumigation, Government orders are that all houses are to be disinfected with kerosene oil emulsion once a week, and houses where there has been a case are to be treated similarly for three days running and thereafter once a week.<sup>1</sup> It must be remembered that disinfection and fumigation are aimed chiefly at destroying fleas, lice and bugs, whilst fumigation with

1. Leaflet on Anti-Plague measures. (Accompaniment to G. R. G. D. No. 5911 of 14th April, 1928.)

sulphur aims at destroying rats in addition. So far, Government do not seem to have done any fumigation, except in the town of Borsad, where, whilst in the last week of April 1935 they disinfected 288 houses, they fumigated only 18. In May, 700 houses were disinfected and only 261 fumigated. Where the work is done with any attempt at thoroughness, as the Government claim to have done in Borsad Town, it takes a trained staff of a qualified Sanitary Inspector with 8 coolies and 4 sweepers a whole day to disinfect about 36 houses (288 houses done from April 23rd to April 30th).<sup>1</sup> How late this was done may be seen from the fact that out of the total 328 deaths in the whole epidemic, 326 had already occurred before any of these measures were adopted. In the villages there was not even a belated attempt at fumigation and the disinfection could hardly have produced any effect.

“The disinfection and cleaning which will be most efficient will be such as will secure the *disinfestation* of the rooms and of all articles of bedding and clothing from fleas.”<sup>2</sup> When the Plague Inspector of the District Local Board disinfected in a day 150 houses situated in three different villages, it could not possibly be described as “disinfestation.” The Congress workers, however,

1. Government Communique of 27th May, 1935.

2. Circular, Local Government Board, London, November 12th, 1910, on the occasion of an outbreak of plague in Suffolk.

it appears, worked with a view to secure disinfection of the houses. We are informed that they worked with a squad of volunteers, who first removed all the furniture from the houses, then sprinkled their special brand of kerosene oil emulsion,\* followed it up with fumigation and subsequent restoration of the furniture. An attempt was made to disinfect clothing by putting it out in the sun.

The first time we find a mention of the disinfection of clothing is in a letter from the Assistant Director of Public Health in 1932 in connection with the epidemic in Porda. No measures, however, seem to have been taken and the next reference to the subject occurs in a note prepared by the Assistant Director of Public Health dated the 8th April 1935, wherein he suggests measures for fighting *future* epidemics in Borsad town.

\* The Public Health Department directs that the kerosene oil emulsion be made by adding kerosene gradually to heated soap water, the latter being kept hot all the time.<sup>(1)</sup> When the agency to make this emulsion is a plague inspector on Rs. 20 a month, accidents are liable to happen as the main report testifies; besides, unless the kerosene oil is added gradually while constantly stirring it, it separates out from the soap water and the emulsion is useless. The emulsion used by the Congress workers was made by them by dissolving naphthalene in kerosene oil and mixing this with equal parts of Turkey red oil in the cold. It is interesting to note that Dr. A. Le Dantec, Professor of Colonial and Tropical Medicine at Bordeaux, recommends a solution of naphthalene in kerosene oil for use as an insecticide in houses where plague cases have occurred.

We must here draw attention to a fact admitted by Government that when 27 Golas from plague-infected Petlad immigrated to Borsad town on or about the 7th October, 1934, all that they claim to have done is that "five were actually inoculated." Here it will be seen that no mention is made of disinfection of their persons and belongings of fleas, and the whole emphasis is laid upon inoculation. Inoculation might protect the five Golas from an attack of the disease, but it could not protect the town of Borsad from any infected vermin that they might have happened to carry on their persons or in their clothing and other belongings.

Let us for a moment turn to the conditions of life in the villages of Borsad Taluka, where we personally visited a number of houses in several villages. The absence of light and air, the close association of man and cattle, the mud floors smeared every day with cowdung, the amount of grain, fodder, oilcake, firewood, etc. stored in the living rooms, the ill fitting doors and worse fitting windows (if there are any) and the heaps of refuse and garbage close to the houses all make a combination in which rats can live and breed in luxury. The people themselves are averse to the destruction of animal life, and indifferent to the inconvenience of its presence, rats' nests being found in the houses behind big jars of grain or under a heap of firewood. In other countries where the conditions are similar, the results have

been the same. For instance, we quote the following from the experience in Kenya<sup>1</sup>:

“It is probable that no measures of rodent destruction are in the least helpful in reducing the rat population of a place, unless carried out intensively and permanently—a very expensive matter indeed. Plague itself fails to exterminate the rats. It is important also to note that while the rat population remains large, it is more probable that infected fleas from dead plague rats will be picked up by other rats than by men. It would seem, therefore, that the best measures of prophylaxis in the face of a threatening epidemic would be the persuasion of house rats to live away from houses by preventing their access to food and reducing their harbourages to a minimum, the conferring on the human population of an artificial immunity by inoculation with Haffkine’s plague prophylactic or similarly prepared vaccine, and finally, in the case of wattle and daub huts with grass roofs which cannot be pulled down, the plastering of the inside walls and floor with fresh plaster, so as to prevent the access of fleas from rat runs in the walls and floor, after the interior and roof have been disinfected by cyano-gas or similar preparation to get rid of fleas and other vermin”

1. *Hand Book on Tropical Fevers* by Jewell and Kauntze; P. 309.

We have, in the conclusion of our general report, referred to the measures suggested by the Assistant Director of Public Health for rat destruction in the next season. In conditions such as we have described we doubt whether they would serve any useful purpose.

We are aware that the Legislature in 1934 sanctioned Rs. 6,600 for the fumigation of vacated houses in plague-infected areas with cyano-gas and a further sum of Rs. 6,100 was sanctioned in the Budget of 1935-36 for a "scheme for prevention of plague by fumigation with cyano-gas, as an educative propaganda." There is no evidence before us that this method was used in Borsad Taluka in 1934 or 1935, except for a demonstration in May 1935 when trapped rats were let loose in an artificial trench covered with a glass sheet and were killed with the gas. We have no doubt about the lethal properties of cyano-gas for all forms of animal life and we believe that if it can be used in a way so as not to endanger the life of man or cattle, it would prove itself superior to the agents hitherto used for disinfestation. We have no experience of its use under the conditions as they exist in Borsad villages. We have seen the correspondence between Mahatma Gandhi and Dr. Bhaskar Patel on the one hand and Lt. Col. S. S. Sokhey, Director, Haffkine Institute, Bombay, on the other; we have visited Borsad villages and we feel that there is some amount of justification for Dr. Bhaskar Patel's doubts about

the innocuousness of the method of fumigating isolated vacated houses. Rat burrows usually run underground for some distance and communicate with the surface at several places. Thus a burrow may have openings in two or three houses and if cyano-gas is pumped into such a burrow it may spread out in other houses which may be occupied. It seems to us that the method requires evacuation of a whole locality for more than one day and it is a pity that the Government did not use it in Borsad when the population of several villages had voluntarily evacuated their houses during this year's epidemic, especially as Government had already obtained a grant for the purpose. The District Local Board was offered a grant for this purpose in June 1935. Considering the legitimate doubts of their Chief Medical Officer, we feel that the Congress leaders were justified in not attempting a method still in its experimental stage in India, especially as an accident with it might have jeopardised the success of their whole undertaking.

#### EVACUATION

The evacuation of infected localities if it can be practised on an extensive scale, would break the contact of man and infected rodent and would permit of disinfection of houses and stopping of rat holes and rat runs, so as to be of benefit in the future; this measure, we understand, has been advocated by the Congress and in some places practised by the people before the advent of the Congress in the field, with a certain measure of

success. Fortunately, plague usually starts in Borsad in January or thereabouts and ends when the heat becomes very severe in May. During this time, plenty of space is available in the fields and it is possible for the people to camp out. One can, however, understand their unwillingness to do so especially in a Taluka where the incidence of crime against property is high, unless some sort of Police protection is guaranteed to them both for the property they leave behind and for what they take with them.

While wholesale evacuation may prevent the further spread of the infection, evacuation becomes absolutely imperative when a plague case has occurred in a house, especially where in most houses people live in close contact with the floor, sitting on it all day and sleeping on it at night. We have come across instances in the history of the Borsad epidemic where people who went to visit their sick friends in neighbouring villages brought back infection—almost certainly in the shape of infected fleas—which may have been the cause of their undoing and often the cause of the beginning of the epidemic in their village.

### HOSPITAL FACILITIES

Such evacuation can be acceded to by the people only if the patient himself is removed to a place, such as a hospital, where he can be cared for. The Local Government Board in England recognised this principle in 1910, and their official

circular states: "The isolation of all patients suffering from plague is desirable, among other reasons, because disinfection and disinfestation of the premises from vermin can be more efficiently secured after the patient's removal. It is important to keep under observation those who have been in contact with the patient or exposed to the same conditions." We are surprised that the Government of Bombay, instead of welcoming the opening of a hospital, have seen fit to criticise its coming into existence, and that too without studying its record of work. In future, we would suggest that each such hospital opened by the Congress be used as a centre for propaganda and for inoculating all contacts. We can testify from personal experience the educative value of propaganda conducted from a hospital and how relations of patients who had previously refused inoculation, have accepted it at the hospital.

## INOCULATION

Inoculation is a measure of very great importance. The Government naturally lay great stress upon it and say: "The responsibility for dealing with epidemics rests mainly upon local bodies, but Government assist them with advice and the provision of inoculators and vaccine free of charge."<sup>1</sup> We have been puzzled as to how to interpret this statement as we find that the District Local Board

1. *Reviews of Administration (Bombay Government) 1933*; p. 811.

at Borsad instead of being "assisted by the provision of inoculators and vaccine free of charge" had to pay its own inoculators and buy its own vaccine from the Government. We have seen a letter from the President, District Local Board, to the Collector dated the 16th March, 1933, asking for a recommendation to the Government for a grant from the provincial revenues, or failing that, for a free supply of plague vaccine. This request was repeated in 1934 and 1935 but the Board had all through the epidemics to buy its vaccines.

Looking to the Budget of the Government of Bombay for 1934-35<sup>1</sup> we find the following statement :

	Accounts 1932-33	Fudget estimates 1933-34	Revised estimate 1933-34
Sale proceeds of Sera and Vac- cines etc.	Rs. 4,47,000	3,80,000	5,00,000

In the explanatory note it is stated that the figures in the revised estimate are so high "owing to the prevalence of plague in Poona and other places during the current year". Accounts made up at the end of the year 1933-34, however, show that this item brought in a revenue of Rs. 5,68,000<sup>2</sup> that is, Rs. 1,88,000 accrued as *additional revenue*

1 Budget of the Government of Bombay 1934-35, p. 73.

2. Budget of the Government of Bombay, 1935-36, p. 73.

to the Government "due to a large increase in the sale of plague and cholera vaccines". As to the actual cost of this increased supply of vaccines, it is difficult to find exact figures, but in the accounts of the Haffkine Institute where alone plague vaccine is prepared, the only item of increased expenditure we find pertaining to our subject is one of Rs. 13,000 in the revised estimates for 1934-35 for "larger purchase of vaccine ampoules and plague accessories", and the same amount is seen in the estimates of 1935-36 as "additional requirement under contingencies for the manufacture of plague and other stock vaccines in larger quantities to meet increasing demands." Thus it seems that in 1933-34 "owing to the prevalence of plague in Poona and other places", Government made an additional income from the sale of sera and vaccines of Rs. 1,88,000 without any increased expenditure; and they estimate an increased income of Rs. 70,000 and Rs. 69,000 (over the estimated figures of 1933-34) from the same source in 1934-35 and 1935-36 respectively, with an increase of expenditure of Rs. 13,000 in each year!

### PROPAGANDA

We would like to emphasise the results that can be obtained by active propaganda in educating the people. We have evidence that the Assistant Director of Public Health and the Mamlatdar on their visits to the infected villages, at the fag end of the epidemic, tried to persuade people, in their

own way, to get inoculated, and we have come across a printed leaflet (size 5" x 3") of nine lines issued over the signature of the Mamlatdar in 1932 in an effort at propaganda. But this can in no way compare with the daily bulletins issued from the Congress Camp. Besides, the personal example set by the volunteers, who themselves did all the heavy and dirty work and who lived amongst the villagers was, we have evidence before us to believe, greatly appreciated by the people. The Congress devoted 14% of its total expenditure for this purpose and we trust that if occasions arise in the future, it will continue on these lines—personal example, leaflets, meetings and talks by the leaders.

#### NO TIME SHOULD BE LOST

Another point that we would emphasise is the value of time. The Government say: "Epidemic work should be primarily prophylactic and if an epidemic breaks out, time is an important factor in dealing with it. Once it has been given a good start, much greater exertion and expenditure are required to overtake it. But except in the case of smallpox, there is little standing organisation to deal with epidemics."<sup>1</sup>

There is evidence to show how at times on the report of a case of plague, an energetic correspondence ensues between the Mamlatdar, the Collector, the Assistant Director of Public Health, the President

i. *Reviews of Administration (Bombay Presidency), 1933; P. 812.*

of the District Local Board and the President of the Taluka Local Board. But the necessary steps are only taken in the majority of cases after the epidemic has reached its height and is nearing its natural end. If the Congress is willing to undertake work in future epidemics, we would draw the attention of the leaders to the plan outlined but not put into execution by the Government of keeping permanent 'flying parties':

"The present staff at the disposal of the Public Health Department is insufficient to deal with outbreaks of epidemics.

Inspectors of sanitation and vaccination can at most disinfect wells in cholera epidemics and explain preventive measures. Medical officers in charge of dispensaries can do the initial work, but they cannot stay out of their head-quarters for prolonged periods without detriment to their dispensary duties. Thus many rural areas do not get adequate preventive and curative aid and rural sanitation in this Presidency is far behind that of other major provinces. As has been pointed out, the staff is at present temporarily recruited after an epidemic breaks out. The training that the temporary inoculators and Medical Officers appointed on malarial duty obtained is now wasted because they are disbanded as soon as an epidemic is over. If there is a small nucleus, expansion is easier and more

efficient. What is required is a permanent trained staff to deal promptly with epidemics. At present, Government spend about Rs. 58,000 a year on epidemic work and it has been calculated that two flying parties, each consisting of a subordinate medical officer and a peon could be permanently within this expenditure in each Assistant Director's Registration District. Additional expenditure would be required only at times of severe epidemics."<sup>1</sup>

As an example of what is done in other countries, we shall quote a statement by Lord Allendale on behalf of the Government in the House of Lords, when four cases of plague were reported from the village of Freston, near Ipswich, in 1910:

"In the House of Lords, Lord Allendale stated that the matter (about the plague infected districts of East Anglia) was first brought to the notice of the Board on October 3rd, when four cases of suspected plague were reported. The Medical Inspector of the Board was instructed on the same day to visit the locality. On the eve of October 8, a dead rat was sent to the Board for examination and was pronounced on October 12th to have had the plague. The Inspector proceeded at once to make

1. *Reviews of Administration (Bombay Presidency) 1908*; p. 818.

a scientific local investigation as to the extent of the disease and to give advice to the Sanitary Inspectors of the districts concerned as to the action to be taken. On October 10th, the Board issued an order as to the destruction of rats, imposing the duty on the Sanitary Authorities and providing for the necessary expenditure of money. They had taken other steps also, and arrangements had been made for a special staff from the Lister Institute to go to Suffolk to make examination on a large scale, and to ascertain the kind of rats affected and their parasites. This work had been undertaken under the directions of Dr. Martin, a Director of the Lister Institute, whose investigations into the plague are well known. Up to yesterday only six districts were known to have rat plague in East Suffolk and one in Essex."<sup>1</sup>

The conditions were similar in Porda in 1932 when the Assistant Director of Public Health in his letter of the 1st September 1932 stated that the outbreak was limited to one part of the village and Dharalas were the worst sufferers. But, as he further stated, no preventive measures had been taken. If the Local Government had adopted the measures taken in 1910 by the Local

1. British Medical Journal, 1910, Vol. 2, p. 1471.

Government Board in England, there would seem no reason to doubt that the same measure of success would have attended their efforts.

### TREATMENT OF PATIENTS

As regards treatment, there is nothing specific. Serum treatment has held out great hopes but has not been found much of a success, though outside India the results reported are excellent. For instance, in the Paris epidemic in 1620, in 52 cases treated with serum there were 2 deaths (3.9 %), in 40 cases without serum 32 deaths (80 %).

A new serum is being prepared in Bombay of which the results are said to be encouraging. The cost of such treatment is prohibitive, more so for a village population, unless the authorities undertake to bear the cost, as is done in many countries in Europe.

### RESPONSIBILITY FOR CHECKING EPIDEMICS

"It is a statutory duty of Municipalities to provide special medical aid and accommodation for the sick in times of epidemics and to take such measures as may be required to prevent the outbreak of and suppress epidemics. In rural areas the primary responsibility in dealing with outbreaks of epidemics rests with the district local boards. The District Local Boards Act, however, makes this vital duty obligatory upon the Boards only 'so

far as the local funds at their disposal permit.'"<sup>1</sup> The Legislature has not stated who is to be responsible if the funds at the disposal of the Local Board are insufficient in any given case. The Board naturally relies upon the Government to fill the gap in its treasury by a grant in aid. Requests for grants were made by the Kaira District Local Board to the Collector and to the Assistant Director of Public Health in 1933, 1934 and 1935.<sup>2</sup> We have no knowledge whether the applications for grant ever travelled beyond the Collector's files. We only know that the Collector in his letter dated 15th January 1934 (i.e. *in the third year of the epidemic*) saw no reason to recommend a grant as he thought that the Board ought to divert some of their money for "this unexpected occurrence this year."

To our minds one of the causes, if not the chief cause, of the failure to take prompt and effective measures to check the spread of the epidemic in its earliest stages is due to the fact of the Legislature putting the responsibility on the District Local Boards (most of whom have not even the resources to employ a health officer) and then watering it down by putting in the modifying clause 'so far as local funds permit'. It is not for us to say how the money for effectively performing this work should be collected from the

<sup>1</sup> Reviews of Administration (Bombay Presidency) 1933; P. 796.

<sup>2</sup> Letter from the President District Local Board, No. 848 of the 15th June 1935.

people—whether in the shape of rates by the local bodies or in the shape of taxes by the Provincial Government. We shall only refer in passing to the revenue of between 4 and 5 lacs per annum derived from the sale of vaccines and sera. The position is correctly described below :

“It is illogical that the whole expense of dealing with epidemics should fall upon the inhabitants of the area in which they occur. There is a very grave danger in trying to deal with epidemics on territorial lines. No single body can maintain a personnel adequate to deal with such eventualities. However remote from them an epidemic may be, it is in the interests of all local bodies that it should be fought before it spreads. The soundest plan would, therefore, be for the Government to control all epidemic works.” \*

This year, Sardar Vallabhbhai Patel and Darbar Gopaldas Desai, feeling that the measures taken by the authorities were not adequate to check the spread of the disease, tried to supplement their efforts. We are given to understand that this is the first time that a public body has volunteered for such a service in the rural areas in India. If the Congress workers wish to continue that policy we would suggest that they keep a flying squad of volunteers (including medical men) ready to take the field at the first notification of

plague. We recommend that particular attention be paid to the evacuation of the infected area and to its disinfection. Hospital accommodation in rat-proof buildings should be provided. An ambulance car would be a desirable addition. An intensive inoculation campaign should be undertaken through the agency of well-trained medical men—a campaign which can be greatly helped by intensive educative propaganda.

M. D. D. GILDER

M. D. (London) F. R. C. S.,  
(England) M. L. C.

PHIROZ C. BHARUCHA

M. D. (London)  
Physicians, Parsi Fever  
Hospital, Bombay

# Appendices

## Appendix I

Bombay, 23rd August 1935.

Dear Mr. Bahadurji,

With reference to the recent outbreak of plague in Borsad Taluka (Dist. Kaira), the Director of Information has in his communique dated the 15th of June, impugned the statements I have from time to time been obliged to issue in answer to what has appeared to me to be extravagant claims made on behalf of the Government. In order to clear the position and to protect the honour of Dr. Bhaskar Patel and Congress volunteers who had selflessly shouldered the grave burden of helping the plague-stricken people in the Borsad Taluka, I asked the Government to appoint an impartial committee of enquiry. They have unfortunately turned down my request. But I owe it to the public and my valued co-workers during that critical period to have the position examined by an impartial committee. In this opinion I have Gandhiji's hearty concurrence. At my request you have been good enough to consent to be a member and chairman of such a committee. Drs. Gilder and Bharucha have kindly consented to be members and Sjt. Vaikunth Mehta to be member and secretary. On behalf of my workers and myself I am grateful to you for your consent. I shall now thank you if you will kindly investigate and report your findings as to-

Whether the charges (See Appendix i)\* made in the communique dated the 15th of June 1935 issued by the Director of Information on the plague epidemic in

\* These are reproduced as appendix II (a).

Borsad, against the Congress workers and the various measures adopted by them have any justification; and

Whether the charges (See Appendix ii)\* made by Sardar Vallabhbhai Patel in the appendix attached to his letter to Government of the 3rd July 1935 and in the various communiques issued by him and Darbar Gopaldas can be sustained.

The medical members of the committee will confer a public benefit if they could suggest measures preventive as well as curative for the guidance of volunteers in future.

I shall presently submit to you all the papers I have in my possession for examination by your committee and shall produce such evidence as your committee may require and which it may be in my power to place at your disposal.

Yours sincerely,  
(Sd.) VALLABHBHAI PATEL

\* These are reproduced as appendices II and II (b).

## Appendix II

### SUMMARY OF CHARGES GOVERNMENT HAVE FAILED TO ANSWER

(1) That the Government and the local bodies failed to take prompt and proper preventive measures during the years 1932-35 and allowed the disease to grow in intensity and extent; that a Special Medical Officer was without any adequate equipment appointed in 1932 as late as September when there had already been several fatal cases before the end of April of that year, that in 1934 a Special Officer was appointed in March though the epidemic had broken out in December 1933, and that in 1935 the Government waited until the 3rd of April for the appointment of a Special Officer though the outbreak was reported as early as 21st October; that while in 1932 one Special Officer was deemed to be necessary for one village, in 1935 one Special Officer was expected to deal with 27 villages.

(2) That the work of inoculation was woefully neglected, the ordinary Medical Officer at Virsad being expected to deal with the whole rural area. He performed 3000 inoculations in the six months between October and April. The Special Officer was appointed when the disease was admittedly on the wane. This Officer performed 2000 inoculations within the space of five weeks. The epidemic could have been substantially controlled if this Officer had been appointed immediately after the outbreak. The remark applies with equal force to the case of Borsad town where no Special Medical Officer was appointed and the Medical Officer in charge of the Municipal dispensary had to perform all the inoculations. He could not do more than 5000 in six months.

(3) That the inoculations done by Dr. Shah, appointed by the Director of Public Health, were so badly done that many people suffered from excruciating after effects and that the doctor had to be removed, after he had performed only 300 inoculations, on grounds of incompetence.

(4) That though the Government admit that "plague preventive measures are most effective, when they are undertaken systematically in the inter-epidemic periods, *i.e.* months when no plague cases are occurring," they had taken no such remedial measures in the inter-epidemic periods of 1932, 1933 and 1934.

(5) That though the belated grant of Rs. 2,000 was made for "the specific purpose of getting the whole town disinfected and fumigated with sulphur *before* the people returned to their homes," hurried attempts were made to use this grant *after* the people had returned to their homes.

(6) That the doctors appointed by the District Local Board or the Public Health Department treated no plague patients.

(7) That in Vachhial, a village with a population of 550 people, plague broke out in the first week of January, the infection was allowed to spread for a month, and that there were 10 deaths before there was any report. The Medical Officer at Virsad visited the place on the 6th February, disinfected two houses and inoculated 11 persons. Since then no one had been there and there had been 26 fresh deaths.

(8) That the Mamlatdar of Borsad took no steps to remove or isolate the 27 immigrants from plague-affected Petlad in October, and that it was not until 5th April when there had been already nearly 300 deaths that he

thought fit to call a conference of the Presidents of the Local Boards and of the Municipality and of the Medical Officers at Virsad and Borsad.

(9) That the Collector and the Assistant Director of Public Health had paid no visit to the area until the 31st of March (five months after the outbreak) when they paid their first flying visit.

(10) The Government claim that their measures are "scientific and based upon prolonged experience of the best measures, possessed only by the Public Health Department." Here are a few facts:

1. The Municipal staff in Borsad, advised by the Public Health Department, prepared the kerosene emulsion so clumsily that a girl of 13 years was almost burnt alive and died soon after in the hospital, a child and one of the two inspectors were badly burnt and the other inspector was so suffocated by hot kerosene fumes that he had to be carried to the hospital in an unconscious condition. As a result the Municipality stopped this work.

2. When the work was restarted under the supervision of the Medical Officer and Sanitary Inspector specially deputed by the Assistant Director of Public Health these officers so mishandled a tin utensil that they narrowly escaped an explosion.

3. Dr. Shah, the Special Officer for inoculations had to be recalled for incompetence.

(11) That though Dr. Bhaskar Patel requested the Assistant Director of Public Health to visit two plague patients in Pandoli where he happened to be on a visit, he did not do so.

## Appendix II (a)

### GOVERNMENT CHARGES

"They very much regret to have to place on record their distrust of some of the forms of treatment of plague adopted by the Congress workers especially when they have allowed patients actually suffering from plague to be removed from their villages and carried in motor cars over bad roads to the Congress Hospital. In a serious disease like plague such treatment is bound to have fatal results. They have learned with still greater regret that patients who had been removed to the hospital were allowed to return to their villages while still suffering from the disease, and that in one such case the patient actually died in a motor car on his way home."

"Government regret to observe that their efforts in the direction of co-operation have been met by unwillingness and not infrequently by open discourtesy from the Congress workers."

## Appendix II (b)

### CONGRESS CHARGES

"As regards Borsad town, the immigration of 27 Golas from plague-affected Petlad was reported to the Mamlatdar, who is an ex-officio member of the Borsad Municipality, as early as 7th October 1934. No attempt was made to remove them or isolate them, or even to inoculate them, and it is they who started the infection which has ended in 327 deaths."

"There had been cases of plague in Bochasan before the 29th March. Our doctor had attended to two of them and had already drawn the attention of the Patel to the grave situation and initiated preventive measures. Our daily bulletin of the 6th April had already a reference to this. But the Mamlatdar ignored all this and took a statement on the 12th April from the Patel and a few others that there was no plague there and that nothing had to be done in that village, though our workers were busy working there in front of his eyes. When, however, the Medical Officer, on receiving complaints from the people reported to him the next day that there were several plague cases in the village, he was compelled to send a wire to the President, District Local Board."

## Appendix III (a)

### GOVERNMENT'S FIRST COMMUNIQUE ON THE PLAGUE EPIDEMIC IN BORSAD

As an outbreak of plague in Borsad in Kaira District has attracted some attention in the Press and as there appears to be some misunderstanding as to the part taken by Government and the local authorities in dealing with it, Government think it desirable to put certain facts upon record.

Plague has been prevalent in the Borsad Taluka since 1932, the disease apparently having its source in the town of Petlad which is in Baroda territory. In 1932 plague deaths numbered 58 distributed over six months of the year, the other months showing no mortality from plague. In 1933 there were 150 deaths from plague, most of them in the first three months of the year. In 1934 there were 129 deaths in the first four months of the year and one death in December, the other months being free. This year the severity of the visitation of plague in this taluka has been greater than at any other period in its history, the total number of attacks and deaths up to the 12th April being 1,039 and 589 respectively, most of them in the north-west corner of the taluka. Preventive measures have been taken by Government, the District Local Board and the Municipality of Borsad town. As early as September 1934, as plague cases were being reported from Petlad, the Assistant Director of Public Health advised the President of the District Local Board that rat-trapping and inoculation work should be started immediately. The Board appointed a plague duty inspector on the 29th September to do the work of rat-trapping

and ensuring as far as he could the cleanliness of the villages. The Inspector of Sanitation and Vaccination at Broach was instructed to proceed to a village called Israma to take preventive measures there, while instructions were issued by the Public Health Department as to the best methods of disinfection, evacuation, etc. The Board appointed another plague duty inspector on February 5th, while the medical officer in charge of the Virsad dispensary was entrusted with the duties of an inoculator and performed nearly 3,000 inoculations in the taluka, while on the 3rd April another Special Officer for inoculation work was appointed. At the end of March the Board had spent Rs. 2,500 in preventive measures against plague.

As regards Borsad town; on receipt of a report by the Public Health Department of a plague case in the town, the President of the Municipality was advised to indent for anti-plague vaccine and to start a campaign to persuade people to get inoculated. Other precautionary and preventive measures advised included disinfection of affected houses, rat destruction and strict supervision of the cleanliness of the town. The Municipality accordingly arranged for inoculation and nearly 5,000 inoculations were performed. People coming from Petlad in motors were examined and those found uninoculated were inoculated, a Special Medical Officer being appointed for the purpose. The Assistant Director of Public Health who had been doing cholera duty in Khandesh came to Borsad at the end of March in order to direct the campaign and, if possible, extend it and intensify the preventive measures already taken by the Municipality. Government have since made a grant of Rs. 2,000 for the specific purpose of getting the whole town disinfected

and fumigated with sulphur before the people, who had sought temporary shelter in the fields or elsewhere, returned to their homes.

The prevention of plague must depend for its effectiveness on the fullest co-operation of the people of the towns and villages affected or likely to be affected by the disease. But, unfortunately, such co-operation is not always readily given, partly because there is a prejudice amongst some communities against the destruction of the animals that convey disease to human beings, while there is also prejudice amongst some villagers against reporting infection amongst members of their family. Efforts of private individuals to stamp out plague are likely to be ineffective, unless the measures taken by them are scientific and based upon the prolonged experience of the best measures, possessed only by the Public Health Department. While Government, therefore, welcome the co-operation of everybody in dealing with so serious and devastating a disease as plague, they would earnestly advise all workers in this field to co-operate with the Public Health authorities in order to ensure that the help thus proffered should be used to the best advantage.

## Appendix III (b)

### REPLY TO GOVERNMENT COMMUNIQUE

The Director of Information to the Government of Bombay issued on the 27th April a communique on the outbreak of plague in Borsad Taluka (Kaira District) with a view to clear "some misunderstanding as to the part taken by Government and the local authorities." It does not care to state how the misunderstanding arose, but assumes that it has arisen, and in order to clear it, it claims to state "certain facts," in the course of which, it makes indirect remarks in disparagement of our humble efforts to stamp out the epidemic. We have so far steered clear of any reference to Government's or the local authorities' action or otherwise in the matter, but this public document full of half-truths and innuendoes makes it imperative on our part to state the facts of the situation.

The disease broke out in 1932, and since then, there have been, as the communique says, recurring outbreaks every year, each greater in its severity and extent than the preceding one. But this is the first time during the four years of plague that Government have thought fit to come out with a communique.

The misunderstanding seems to have arisen evidently because we were able this year to undertake this public work of far-reaching importance and have gone about it with the thoroughness that it deserves. As the whole work depending on voluntary agency presupposes public co-operation, we have had to issue leaflets addressed to the public from day to day and to hold meetings everywhere. This has led to an awakening of the sanitary

and hygienic conscience of the people who have come forward to help us wherever we have gone.

### LABOURED APOLOGIA

This is a thing that Government have obviously found it difficult to appreciate. They are afraid lest they should be accused of remissness in the matter, and have, therefore, come out with a defence which is as forced as it was unnecessary. He who excuses himself accuses himself. In the interest of the public, we are compelled to expose the hollowness of the excuse and to draw the attention of all concerned to the woeful state of affairs. What we state here is based on official documents which go to prove conclusively that Government have all these years tinkered with the grave problem, until they were compelled to bestir themselves somewhat by people having themselves undertaken to do what was the duty of the State.

### TELL-TALE FIGURES

Look at the tell-tale figures. We wonder if Government realised what an indictment they revealed in their own communique by the figures of the ever-increasing toll that plague has been taking in the Taluka. The number of deaths has mounted up from 58 in 1932 to 589 during the present year. They have not stated the number of villages affected. We will state them for the public. In 1932, there was only one village affected, in 1933 there were 10 villages, in 1934 the number had increased to 14, and during the present year there are as many as 27 villages affected. Would this have happened if preventive measures of a thorough-going character had been taken?

## TINKERING WITH GRAVE ISSUE

The case of a single village will suffice to show the perfunctory way in which they have gone about the business. The outbreak of plague for the first time in a village called Porda in 1932 was not even noticed, until a month after the news had found its way to the press. The Mamlatdar went to the village and got statements to the effect that there was no plague, but remarked that there were rats and fleas. The Collector was dissatisfied at the evasive reply and pressed for more definite information. The Mamlatdar then wired that an outbreak was likely. In about a month he wired again reporting, "six attacks and one death" whereas the Medical Officer reported that before the Mamlatdar's report there had been 'two' deaths. This was in April. In August the Medical Officer reported the prevalence of plague and cholera and pressed for the appointment of a Special Medical Officer, as he had himself more work on his hands than he could cope with. The Assistant Director of Public Health visited the village for the first time at the end of August, discovered that there was no cholera, but that all the deaths were from plague and that so far, there had been 11 deaths. He also remarked that there had been no inoculation and no disinfection. A Special Officer was appointed in September, but he could do nothing as his repeated requests for materials for disinfection, rat-trapping and inoculations were never heeded. He reported that he could do practically no disinfection, as he was not supplied with kerosene oil for emulsion; that for days together he had no traps, that when he got the traps, they were not good; that he could do no inoculation as

there was no requisite outfit; that the serum supplied to him was too old to be of any use; that when the new serum did arrive, there were not enough syringes and needles, and that he could therefore inoculate only 291 persons out of a population of 1500. This is the burden of this Special Officer's day to day reports which reveal the cause of the ever-increasing extent and ravages of the epidemic.

#### TOO LATE

This Special Officer ceased to function after a time, and the ordinary officer on duty at Virsad who had to do all kinds of jobs from the treatment of meningitis to the treatment of the Special Police at Ras, was asked to do plague duty as an additional job. It has never been thought fit to have more than one Special Medical Officer and his appointment is made only at the fag end of the season. Thus in 1934, a Special Officer was appointed on the 7th March, though the epidemic had broken out in December 1933, while in 1935 a Special Officer was appointed on 3rd April, though the outbreak was reported as early as 31st October 1934.

#### FEW INOCULATIONS

Preventive measures like the essential ones of thorough house-to-house cleaning and disinfection had never before struck the Government as measures to be seriously taken up, but even inoculation on which they pin their faith has not been done with anything like the thoroughness with which it was done in Baroda territory. The Government claim to have done 3000 inoculations in the rural and something like 5000 in the urban area. A comparative table of the figures of inoculation in a few

Baroda villages contiguous to British villages is well worth a study :

#### COMPARATIVE INOCULATION FIGURES

	BRITISH Population	Inoculations
Borsad	13,191	4,800
Anklav	5,000	197
Vachhial	500	11
Vehra	1,362	78
Rangipura	691	124
	BARODA STATE Population	Inoculations
Petlad	19,236	16,026
Bhadran	5,328	2,773
Bhadrania	730	506
Boria	1,425	885
Vatav	1,871	500

Thus the percentage of people inoculated in British territory was in rural area only 4 per cent. and in urban area 25 per cent. whereas in Baroda territory it was over 60 per cent. for both the areas.

#### FEWER PREVENTIVE MEASURES

To come now to other preventive measures taken in 1932. Those taken in 1935 were no improvement on those taken in 1932. They were, if anything, worse. Let it be remembered that whereas in 1932, one Special Officer was appointed for one village soon after the report of an outbreak, during the present year no one was appointed, until after five months of the outbreak, and for an area of 27 villages. The Assistant Director of Public Health has not passed a single night in the affected areas during all these months. The communique says that

"the Inspector of Sanitation and Vaccination at Broach was instructed to proceed to a village called Israma to take preventive measures there, while instructions were issued by the Public Health Department as to the best method of disinfection, evacuation, etc." We may state without any fear of contradiction that this Sanitary Inspector stayed at Israma for a couple of days and did nothing beyond giving his 'expert' advice to the Local Board Plague-duty Inspector (a big enough designation but carrying a salary of Rs. 20 p. m.). This Inspector told us that he had during the year not killed a single rat and that the figures given in his report about rat-destruction referred only to dead rats found in plague-affected areas. The Medical Officer at Virsad referred to in the communique as "entrusted with the duties of an inoculator" is the overworked individual we have already described in a previous paragraph, and the instructions issued by the Public Health Department are the stereotyped instructions issued every year, which mean certainly some extra expense on postage, but nothing more.

To take one or two examples of the way in which work has been carried out. In Vachhial which has a small population of about 550 people, plague broke out in the first week of January, the infection was allowed to spread for a month, and there were 10 deaths before there was any report, by which time people had begun to run about to neighbouring villages carrying infection wherever they went. The Medical Officer at Virsad visited the place on 6th February, disinfected two houses and inoculated 11 persons. Since then no one has been there and there have been 26 fresh deaths.

As regards Borsad town, the immigration of 27 *Golas* from plague-infected Petlad was reported to the Mamlatdar, who is an ex-officio member of the Borsad Municipality, as early as 7th October 1934. No attempt was made to remove them or isolate them, or even to inoculate them, and it is they who started the infection which has ended in 327 deaths.

#### BELATED GOVERNMENT MOVE

The communique says that the Government has made a grant of Rs. 2,000 for the disinfection and fumigation of the whole town before the people returned to their houses. The town has been thoroughly cleaned and disinfected and fumigated by our volunteer band under the directions of Dr. Bhaskar Patel, M. D., and the bulk of the people are already in their houses. Government may now waste the amount if they must do so for the fun of it. Assuming that the bulk of the men who have already gone back will suffer being hustled to and fro again, it is a work which would take the Public Health Department over four months at the rate at which they are going on. The work is being done by hired labour and these have done not more than 500 houses in 15 days.

#### MISLEADING FIGURES

We have analysed before some of the figures in the communique. We shall take up just one more statement to show how figures can be misleading. "At the end of March," says the communique, "the Board had spent Rs. 2,500 in preventive measures against plague." The precise figure is Rs. 2,486. Even that figure represents the expenditure not on the plague affected area in question, but on the whole of the Kaira district, and

includes Rs. 787 expended on cholera relief. The slovenly inaccuracy of the statement is indicative of the general slovenly way in which affairs are conducted.

### SCIENTIFIC METHODS

The communique lays evident stress on the fact that their method of work is scientific and insinuates that ours is unscientific, and warns us that we should co-operate with the health authorities if our help is to be of any advantage. We shall have to dwell at some length on the co-operation aspect of the matter. About the scientific aspect, let us note one or two facts. In the beginning of the year, the poorly paid municipal staff on whom the task of preparing the disinfection emulsion fell, went so clumsily about their business that a girl of 13 years was almost burnt alive and died soon after in the hospital, a child and one of the two inspectors were badly burnt and the other inspector inhaled hot kerosene fumes to such an extent that he had to be carried to the hospital in an unconscious condition. As a result the municipality stopped this work. It was again started a few days before the issue of the communique under the supervision of the Medical Officer and Sanitary Inspector specially deputed by the Assistant Director of Public Health. These officers in their turn mishandled a tin utensil in the same way and narrowly escaped an explosion.

As regards fumigation, even the Assistant Director of Public Health, who was keen on what he calls his "pot method of fumigation," eventually agreed that it was too expensive for villages, as a sample pot cost as much as Rs. 10 and too cumbrous to be of effective use, and he ultimately advised the adoption of our simple method.

## CO-OPERATION REJECTED

We now come to the warning about co-operation. The whole paragraph comes with ill grace from Government which might have had a word of appreciation for the work done by our volunteers who have risked their lives and gone from village to village and house to house, cleaning not only the streets but the darkest nooks and corners of houses and disinfecting and fumigating them. But we did not take up the work for Government appreciation or public applause. It was undertaken out of a keen sense of duty and in the hope that help so humbly offered would be found acceptable. We shall state a few facts and show how co-operation which was offered was rejected at every step.

In the first week of March, when we saw that the epidemic was furiously raging in the taluka we deputed Dr. Bhaskar Patel, M. D., an able and experienced physician, practising in Bombay to investigate personally and report on the conditions in this area. He came to Borsad on 13th March, visited nearly all the affected villages and found that the people were in a helpless and terror-stricken condition. On receiving his report, we decided after consultation with our workers to open a Relief-camp to organise and carry on a vigorous campaign against the epidemic and also to open a Plague Hospital in our Chhavani Buildings at Borsad. Dr. Bhaskar visited the Haffkine Institute, consulted Col. Sokhey, I. M. S., discussed with him some of the preventive measures and came and camped at Borsad on the 23rd from which date we commenced operations with about 50 volunteers (young men and women).

### COLLECTOR'S FLYING VISIT

When we came here we found that no responsible officer had visited this unfortunate area during the present outbreak which commenced on the 21st October 1934. On the 31st March, for the first time, the Collector and the Assistant Director of Public Health paid a flying visit to Borsad and left on the same day without visiting any part of the affected area. The Assistant Director came to Borsad on 2nd April, when it was announced that he would visit Anklav where the epidemic was virulent at that time. His programme was intimated to the people of Anklav and we made all preparations to start our work at Anklav in consultation with him that day. But we were told that he had to drop the programme, as his car was too good to be used on the dusty road to Anklav. He, however, visited that day our Hospital, saw our camp and had a long discussion with us and Dr. Bhaskar Patel as to the manner and method of fighting the epidemic. We explained to him all that we were doing and all that we intended to do and we also assured him of our full co-operation if he started any work. He said that if he had Rs. 4,000 at his disposal, he would stamp out the epidemic without fail and in no time from this taluka.

### OFFICIAL NON-CO-OPERATION

On the 5th April, a conference for the purpose of discussion and deciding the measures for controlling the plague epidemic was held by the Mamlatdar at his office when the Presidents of the District and Taluka Local Boards, the President and Secretary of the Borsad Municipality and the two Medical Officers of Virsad and Borsad were invited. The Assistant Director of Public

Health was specially invited, at the request of the President, District Local Board, but he did not attend the conference. When the President of the Taluka Board was authorised by the President of the District Local Board to hire a motor car, the Assistant Director availed himself of the car and went for the first time, on 10th April to Kantharia and Anklav with the President of the Taluka Local Board and the Mamlatdar. At both these places, our volunteers were carrying on a vigorous campaign of house-cleaning and disinfection under the supervision of Dr. Bhaskar Patel who was also visiting the plague stricken patients in these villages and treating them on that day. To our surprise, we found that inspite of our assurance of full and ungrudging co-operation, the Assistant Director and his party avoided us altogether. When he visited Pandoli on the 12th of April, there were two fresh attacks of plague in the village, and their relatives were anxious that they should be examined and treated. Dr. Bhaskar Patel went out of his way to approach the Assistant Director and invited him to visit the two cases, but the latter did not care to see them.

We cannot but mention here a case of gross negligence and deliberate refusal to attend to facts to which we were trying to invite the attention of the authorities. There had been cases of plague in Bochasan before the 29th March. Our Doctor had attended to two of them and had already drawn the attention of the Patel to the grave situation and initiated preventive measures. Our daily bulletin of the 6th April had already a reference about this. But the Mamlatdar ignored all this and took a statement on the 12th April from the Patel and a few others that there was no plague there and that nothing

had to be done in that village, though our workers were busy working there in front of his eyes. When, however, the Medical Officer, on receiving complaints from people, reported to him the next day that there were several plague cases in the village, he was compelled to send a wire to the President, District Local Board.

These details are enough to show that there was on the part of Government no desire whatsoever for co-operation. We found at every step that not only were the Public Health authorities not willing to co-operate, but their attitude led even the Municipality to withdraw the co-operation that they had willingly offered heretofore. We could cite a number of instances, but we refrain for want of space.

#### A BELATED SUGGESTION

We have before us a copy of the note prepared by the Assistant Director of Public Health, dated 8th April 1935 giving a history of plague in Borsad Taluka from its beginning up to now with its causes, preventive and precautionary measures taken by the local bodies and the Public Health Department, as also measures recommended for stamping out future plague outbreaks in Borsad Taluka. We have examined in some detail the preventive measures claimed to have been taken. But the recommendations by themselves are enough to convict the Public Health Department of gross negligence in such a serious matter affecting the lives of a whole population. He suggests that the services of at least 2 Medical Officers on Malaria duty should be requisitioned from Government for the coming months of August, September and October as he thinks that malaria has increased considerably in this area by the construction of a new Railway

line and has the effect of devitalising the people and thus reducing their capacity to resist the plague epidemic. He, therefore, wants the villagers of the north-west part of the Taluka to be thoroughly quininised before next November. He says that in the month of November mass destruction of rats should be undertaken for this purpose. He further states "the following staff and materials are required :

1. Three Medical Officers on Plague duty from 1st November to 30th April on Rs. 90 p. m.

2. 500 rat-traps of the best pattern made in Jails (cost Rs. 2-4-0 per each).

3. Spray-pumps, one per inspector (cost Rs. 30 each).

4. Barium Carbonate 2 lbs. per village—about 200 lbs (cost Rs. 1-4-0 per lb.)

5. 4 plague duty Inspectors on Rs. 40 p. m. each to be given not more than 25 villages each.

6. Two pots (per Inspector) of Rs. 4 each and sulphur at the rate of 200 lbs. per affected village (cost 3 as. per lb.)

7. Rs. 2,000 for plague-vaccine.

The total cost would roughly come to Rs. 7,000."

He further recommends that an important measure should be adopted, *viz.*, investing the Mamlatdar or some suitable authority with powers for securing compulsory notification of plague attacks and rat mortality and compulsory disinfection of infected houses and securing better sanitation of any village or town threatened with plague and for the disinfection of clothing and grain etc., of persons coming from infected localities. He further suggests that a town like Borsad should have an air-tight corrugated tin shed outside the town which could be used

for disinfection of clothes, grains, etc. by suitable methods.

May we ask why these elaborate methods which are considered necessary by him for preventing outbreaks of plague in this Taluka were not recommended upto now by the expert and experienced officers of the Public Health Department? The District Local Board records show that at the end of every outbreak the Public Health Department had anticipated an epidemic of a severer type in the next season. Why were these measures then not taken or even suggested before? If so many medical officers and inspectors specially trained are required to be employed before the 1st November, why did it not occur to the Public Health Department that it was criminal on their part to throw all this responsibility on a single medical officer with no trained staff and burdened with his own normal duties and additional onerous duties in adjacent talukas with no adequate supply of materials?

#### NOT SHY OF CO-OPERATION

We have done. It is no pleasant task for us to issue this statement. We are afraid Government asked for it. They had tinkered at the problem so far, found that the people had anticipated them, and have therefore hastened to issue a communique which condemns them where it is truthful and misleads when it claims to make matters clear.

Our work is still going on and we hope to publish a report of our work before long. We shall not rest content until every house in the affected area has been thoroughly dealt with and every village swept clean of all infection. We may humbly state that one of us was at

the head of the sanitary affairs of the second biggest city in the Presidency for a number of years, and particularly at a time when plague was furiously raging in that city. The other has served as President of the Kaira District Local Board for some years and has just been again elected to that post. We may thus both claim to have some experience of dealing with matters of public health. We had the benefit of the voluntary services of an able and experienced physician of Bombay who was in charge of the Congress Free Hospital for a long time. But even then we were prepared to take the fullest benefit of Government expert help and co-operation. It was never given. Let us hope it will be given on future occasions. The task of stamping out such a terrible epidemic which has now become endemic is no easy one. It is as much Government's as ours. We do not shy at co-operation. Neither let the Government do so.

(Sd.) VALLABHBHAI PATEL  
(Sd.) GOPALDAS DESAI

## Appendix III (c)

### GOVERNMENT'S SECOND COMMUNIQUE ON THE PLAGUE EPIDEMIC IN BORSAD TALUKA DATED 27TH MAY 1935

As has been pointed out already in the Press Communique of 27th April 1935, the history of plague epidemics in Borsad Taluka shows that plague usually dies out with the onset of the hot weather. There were in all 208 attacks and 91 deaths in 11 villages in the month of April 1935. In the month of May, 23 attacks and 13 deaths occurred in six villages. Since the 13th of May no cases of plague have been reported in any of the villages and in Borsad town the last case reported was on the 16th May 1935. It is usual to find in the history of plague epidemics, that the disease shows high case mortality at the beginning of an epidemic and low case mortality towards the end of its course. This has actually been the case in the present epidemic in Borsad.

*Preventive Measures in Borsad Taluka:* During the month of April and May, three Medical Officers on Plague Duty were engaged in systematic touring of all the affected villages. Mr. Pradhan, Medical Officer, was appointed by the District Local Board from the 3rd of April 1935 and he performed 2005 inoculations in 14 villages. Mr. R. B. Shah was appointed by the Director of Public Health from 20th April 1935 and performed 300 inoculations in four villages. Mr. Kadhe was appointed for treatment of patients suffering from Malaria and other diseases by the Director of Public Health for the Government of Bombay from 27th April 1935 and visited 20

villages and treated 500 patients. It should be noted in appreciating the real value of the number of inoculations performed by these Medical Officers that plague was dying out when these inoculations were done. It is extremely difficult to get people to submit to inoculation at this stage of the course of the epidemic.

In addition to inoculation, a systematic survey of the sanitary conditions of the affected villages was made by the Assistant Director of Public Health in company of Mr. Jhaverbhai Patel, President, Taluka Local Board and the Mamlatdar. In every one of these villages, a cleanliness campaign was organised with the help of the leading villagers by engaging the local sweepers on a contract system. They were paid partly from the funds of the Taluka Local Board and partly from village funds. In this way, all the affected villages were efficiently cleaned. The services of the two Sanitary Inspectors were utilized for disinfecting the affected houses systematically with kerosene oil emulsion used with spray pumps provided by the Taluka Local Board. It is a gratifying fact to note that this work was carried out with the co-operation of persons of all creeds and denominations and the people of the villages served showed their appreciation of the work done on their behalf by coming forward and giving information about rat mortality and human cases which would not otherwise have been possible. The President, Taluka Local Board spared no pains to make the campaign in these villages a success as did the Mamlatdar, Mr. Sayyed. The District Local Board sanctioned all expenses to be incurred for suggested preventive measures through their Vice President, Rao Saheb B. G. Desai at a meeting called by the Mamlatdar, at the instance of the Assistant Director of Public Health on 5th April 1935.

## BORSAD TOWN

The town has suffered badly during the present epidemic of plague which reappeared in the town after the lapse of a good many years. In order to prevent its being revisited annually by plague, as has been the case in some of the towns in Baroda territory, preventive measures in an intensive form have been undertaken in this town since the 23rd of April 1935. It is a well known fact revealed in experiences of plague epidemics in various parts of this country and other countries, *e. g.*, South America, that plague preventive measures are most effective when they are undertaken systematically in the inter-epidemic periods *i. e.* months when no plague cases are occurring. In Borsad Taluka the history of plague shows, as has been already pointed out, that the period, May to November is usually plague-free. The town has been surveyed and divided into eight well demarcated parts. Each of these parts is systematically treated in the reverse order of their incidence of human and rat plague; *i. e.* the part last affected is taken first. The houses in these parts are classified into three classes: (1) houses where plague cases had occurred, (2) houses where rat-mortality had occurred, and (3) houses whose owners wanted them to be treated. Each of these houses is visited by a special staff trained by the Assistant Director of Public Health under a qualified Sanitary Inspector and all rat-holes are searched out by means of electric torches and filled with pieces of gunny bags dipped in coal tar and finally cemented. The staff engaged is eight coolies and four sweepers. The whole locality is thoroughly cleansed, the immediate surroundings receiving particular attention. The houses naturally receive disinfection by kerosene oil emulsion by means

of spray pumps before the rat holes are treated for the safety of the staff engaged. Poison baits of Barium Carbonate are laid in empty and delapidated houses and other places where signs of rat-harbourage are found. The treatment of rat holes in the above manner is intended to kill all infected fleas which lie in the rat-holes and is a most important anti-plague measure. The whole staff is specially selected and is paid from the grant of Rs. 2,000 sanctioned by Government. The Assistant Director of Public Health is personally directing the work in Borsad town and has been camping in Borsad since the 22nd May. The treatment of the eight parts of the town is expected to be finished before the rains break out. During the months of June to November systematic trapping of rats will be undertaken in order to diminish the rat population of the town. For this purpose, 100 rat traps of the best type have been ordered and will be in use during the monsoon months when the rat population is the highest during the year.

The following table gives the details of work so far done by the special staff in Borsad, since the commencement of the operations.

Month	No. of houses disinfected	No. of rat-holes stuffed with gunny bag pieces &c. & cemented	Rats found	Houses fumigated	Baits of barium carbonate placed	Baits consumed
April 1935	288	869	9	18	700	220
May 1935	700	1618	22	261	7045	1060

## Appendix III (d)

SARDAR VALLABHBHAI PATEL'S

REPLY TO

GOVERNMENT'S SECOND COMMUNIQUE

The latest communique on the plague epidemic in Borsad Taluka is another futile attempt, on the part of the Government to throw dust into the eyes of the people. It is self-contradictory in parts, and incorrect in its main facts. "Plague", it says, "usually dies out with the onset of the hot weather," but the Government took no steps for inoculating the people until the beginning of April, reserved its remedial measures, and that for the town of Borsad until the onset of the hot weather, and did the bulk of its inoculations when plague was expected to be on the wane. It refers to the "systematic touring by three medical officers on plague-duty." They are described as "Plague-officers" but one of these three, was Mr. Kadhe, who in the words of the communique, in the same paragraph, "was appointed for treatment of patients suffering from malaria, and other diseases." This gentleman is said to have visited 20 villages and treated 500 patients — malaria patients obviously. We do not know if these distinguished doctors treated a single plague-patient. As regards the belated inoculations, it is enough to mention the fact that those done by Mr. R. B. Shah from the 20th April, were so badly done that many people suffered from excruciating aftereffects and the doctor had to be immediately removed on grounds of incompetence by the telegraphic advice sent by the Taluka Local Board President to the Director of Public Health. As regards "the systematic survey of the

sanitary conditions of the affected villages made by the Assistant Director of Public Health in company with Mr. Jhaverbhai Patel, President of the Taluka Local Board and the Mamlatdar," a diary of the President would be very eloquent on the point. But as I have no access to the diary, I would content myself with quoting the President's own words from a speech read out by him at the meeting in the village Bodal, addressed by Mahatma Gandhi on the 28th May: "The Local Board is a poor and resourceless body. It has no means to cope with a terrible epidemic like that of plague. Plague has been endemic here for four years, and has been increasing in its extent and intensity each year, but we have had no Government help. The District Local Board made repeated requests for grants but without avail. We were thus sitting helpless and in despair cursing our lot when God listened to our complaints and sent the Sardar and the Darbarsaheb and Dr. Bhaskar Patel who opened a plague relief camp, an emergency hospital, and carried on a vast disinfection and cleansing campaign in every affected village" etc. etc. I omit the portions in his speech devoted to excessive praise of me and my volunteers — praise which we do not deserve, as we did no more than our obvious duty. The Government communique bravely mentions figures of houses disinfected, houses fumigated, rats found and baits consumed in the town of Borsad. Why is it then silent about the work Government claim to have done in the rest of the Taluka? The fact is that no work was done in the villages when plague was at its height. For days and months plague had been raging in villages and yet there were no reports of rat mortality or plague cases. It was only after the plague relief organised by us had covered

all the affected villages that the Government were roused from their slumbers and sanctioned Rs 2,000 for the town of Borsad. Much is being made of these belated measures in the town of Borsad. It is curious to observe that though the grant of Rs. 2,000 was made for "the specific purpose of getting the whole town disinfected and fumigated with sulphur before the people who had sought temporary shelter in the fields or elsewhere, returned to their homes."—to use Government's own words in their first communique—hurried attempts are now being made for dividing the town into well-demarcated parts and classifying houses and filling rat holes etc. long after the people have returned to their homes. Government grandiloquently say that "plague preventive measures are most effective, when they are undertaken systematically in the inter-epidemic periods, *i.e.*, months when no plague cases are occurring." Is it that Government have made this brilliant discovery only in the month of May 1935, or was the discovery before them all these years? If the latter was the case, I should like to know what remedial measures they took in 1932, 1933 and 1934 in the inter-epidemic periods of those years. This I think is enough to expose the hollowness of the claims made in this amazing communique. I only hope and pray that they will at least now try to do something in justification of the claims.

(Sd.) VALLABHBHAI PATEL

## Appendix III (e)

### GOVERNMENT'S THIRD COMMUNIQUE ON THE PLAGUE EPIDEMIC IN BORSAD TALUKA DATED 15TH JUNE 1935

Mr. Vallabhbhai Patel and Mr. Gopaldas Desai have issued a lengthy statement purporting to be a rejoinder to the Government communique of April 27 on the plague situation in Borsad. This rejoinder contains a number of inaccurate statements and allegations against local officials which careful enquiry has shown to be unfounded. Government are satisfied that the statement in the rejoinder to the effect that the officers of the Public Health Department and local Revenue officers refused to co-operate with the Congress workers is entirely incorrect. These officers have made every endeavour both to give and obtain co-operation but Government regret to observe that their efforts in that direction have been met by unwillingness and, not infrequently, by open discourtesy from the Congress workers.

It is not necessary to reply in detail to the many allegations and innuendoes. The following two instances are enough. The signatories to the rejoinder say that the Mamlatdar of Borsad was inert regarding persons arriving in Borsad from the plague-stricken area of Petlad. On the contrary, apprehending an outbreak of plague in Borsad, the Mamlatdar wrote as far back as October 1934 to the President of the Borsad Municipality asking him to take preventive measures. He also instructed the Police Sub-Inspector to prepare a list of arrivals from Petlad. There were 27 such persons and efforts were made to inoculate them. Five were actually inoculated. A further allegation is that though there was plague in Bochasan

village on 29th March last the Mamlatdar reported that there was no plague there. This again is incorrect. The fact that there was plague at Bochasan on 29th March was not borne out by the reports of village officers. The Mamlatdar visited the village in the company of the President of the Taluka Local Board on April 12. Both of them found no record to show that there was plague in the village but the village required cleaning. They collected the leading men of the village and advised them to take preventive measures. In the course of enquiry it was discovered that rats were dying in one locality. As it was necessary to incur some expenditure by the Local Board for disinfectants and for cleansing the village by the employment of bhangis the President, Taluka Local Board, thought it advisable to record a statement of the leading men to the effect that rats were dying in one locality. This was done to arm the President with authority for incurring expenditure. It was not done in order to prove the non-existence of plague in the village as is insinuated in the rejoinder. The next day the President, Taluka Local Board, accompanied by the medical officer visited the village again. The doctor detected three cases in the area and on receipt of his report the Mamlatdar wired to the President, District Local Board and the Collector.

In considering the criticisms levelled against Government it must always be remembered that the primary responsibility for plague prevention and other sanitary measures lies with the local authorities and not with Government. The latter through its officers gives advice and assistance whenever needed. It is the task of the local bodies not only to persuade the people to take measures to help themselves, but also to provide the staff

required to check and control an epidemic, although in the case of Borsad town and talukā Government have allotted Rs. 7,000 for special anti-plague measures.

Government are satisfied that their officers, with the co-operation of the local authorities, have done their best to cope with the plague epidemic in Borsad town and the villages affected in the taluka. They much regret to have to place on record their distrust of some of the forms of treatment of plague adopted by the Congress workers, especially when they have allowed patients actually suffering from plague to be removed from their villages and carried in motor cars over bad roads to the Congress Hospital. In a serious disease like plague such treatment is bound to have fatal results. They have learned with still greater regret that patients who had been removed to the hospital were allowed to return to their villages while still suffering from the disease, and that in one such case the patient actually died in a motor car on his way home.

Judging from the remarks made in their rejoinder, Government can only come to the conclusion that, probably through lack of that experience and knowledge which have been gained by Government officers in dealing with previous plague epidemics, the Congress workers have failed to realise the difficulties of coping with an epidemic when the conditions under which the people are living are all in favour of its spread. The peculiar characteristics of the present plague epidemic in Borsad taluka have enhanced these difficulties, but Government are satisfied that all reasonable precautions have been taken by the authorities concerned to prevent its spreading further and that adequate measures are also being taken as far as possible to treat those actually suffering from the disease.

## Appendix III (f)

### SARDAR VALLABHBHAI'S LETTER TO THE SECRETARY TO THE GOVERNMENT OF BOMBAY, HOME DEPARTMENT

89 Warden Road,  
Bombay, 3rd July, 1935

DEAR SIR,

I was sorry to read the communique of the Director of Public Information dated 15th June which seeks to answer some of the statements published over the signatures of Darbar Gopaldas Desai and myself about the plague epidemic in Borsad Taluka.

The communique fails to answer the charges made in our statements, ignores some of the grievous charges made by us and casts serious reflections upon our management. We are advised by lawyers that some of the criticisms made in the communique would amount to a libel, if it was not privileged. Eminent medical men advise me that the measures taken by us to combat the plague were not only well chosen but were the best suited to the dangerous situation and the peculiar circumstances that then existed. For ready reference I enclose herewith a comparative analysis of the statements made by us and the Director's replies thereto, a list of the charges unanswered by the Director and our reply to the charges brought against us.

The communique makes much of the fact that "the primary responsibility for plague prevention and other sanitary measures lies with the local authorities and not with the Government." The two previous communiques,

I am glad to be able to note, did not seek shelter under this technical position. But, in my humble opinion, whilst preventive and sanitary measures would technically lie primarily with local authorities, Government cannot disown responsibility for measures to be taken when dangerous diseases like plague actually break out. I would submit that in such emergencies local authorities would have resources neither in men nor money and can hardly be expected to cope with situations whose effect may easily travel beyond their jurisdiction.

The reflections on the adoption of measures involve a serious charge upon Dr. Bhaskar Patel who placed his services free of charge at our disposal and laboured day and night among the patients.

Unfortunately, outbreaks of infectious diseases are not a rare occurrence in this country. We would gladly seek, as we have done in the past, co-operation from and render it to Government in matters involving danger to public health or visitations of Nature, the more so when the Congress has suspended civil disobedience for an indefinite time.

Viewed as above, the charges made by the authorities against us demand a withdrawal, or a public enquiry by a committee of independent medical men and others capable of weighing evidence. I, therefore, request the institution of such an inquiry in the public interest unless in the light of this submission the Government see their way to withdraw the charges and to correct the obvious errors in the Director's communique.

Yours truly,  
(Sd.) VALLABHBHAI PATEL

## ANALYSIS OF CHARGES AGAINST GOVERNMENT AND GOVERNMENT REPLY.

### CONGRESS CHARGES

"As regards Borsad town, the immigration of 27 Golas from plague-affected Petlad was reported to the Mamlatdar, who is an ex-officio member of the Borsad Municipality, as early as 7th October 1934. No attempt was made to remove them or isolate them, or even to inoculate them, and it is they who started the infection which has ended in 327 deaths."

"There had been cases of plague in Bochasan before the 29th March. Our doctor had attended to two of them and had already drawn the attention of the

### GOVERNMENT REPLY

"The signatories to the rejoinder say that the Mamlatdar of Borsad was inert regarding persons arriving in Borsad from the plague-stricken area of Petlad. On the contrary, apprehending an outbreak of plague in Borsad, the Mamlatdar wrote as far back as October 1934 to the President of the Borsad Municipality asking him to take preventive measures. He also instructed the Police Sub-Inspector to prepare a list of arrivals from Petlad. There were 27 such persons and efforts were made to inoculate them. Five were actually inoculated."

"A further allegation is that though there was plague in Bochasan village on 29th March the Mamlatdar reported that there was no plague there.

Patel to the grave situation and initiated preventive measures. Our daily bulletin of the 6th April had already a reference to this. But the Mamlatdar ignored all this and took a statement on the 12th April from the Patel and a few others that there was no plague there and that nothing had to be done in that village, though our workers were busy working there in front of his eyes. When, however, the Medical Officer, on receiving complaints from the people, reported to him the next day that there were several plague cases in the village, he was compelled to send a wire to the President, District Local Board."

This again is incorrect. The fact that there was plague at Bochasan on 29th March was not borne out by the reports of village officers. The Mamlatdar visited the village in the company of the President of the Taluka Local Board on April 12. Both of them found no record to show that there was plague in the village, but the village required cleaning. They collected the leading men of the village and advised them to take preventive measures. In the course of enquiry it was discovered that rats were dying in one locality. As it was necessary to incur some expenditure by the Local Board for disinfectants and for cleansing the village by the employment of bhangis the President, Taluka Local Board, thought it advisable to record a statement of the leading men to the effect that rats were dying in one locality. This was done to arm the President with authority for

incurring expenditure. It was not done in order to prove the non-existence of plague in the village as is insinuated in the rejoinder. The next day the President, Taluka Local Board, accompanied by the Medical Officer visited the village again. The doctor detected three cases in the area and on receipt of his report the Mamlatdar wired to the President, District Local Board, and the Collector."

## GOVERNMENT CHARGES AND CONGRESS REPLY

### GOVERNMENT CHARGES

"They much regret to have to place on record their distrust of some of the forms of treatment of plague adopted by the Congress workers especially when they have allowed patients actually suffering from plague to be removed from their villages and carried in motor cars over bad roads to the Congress Hospital. In a serious disease

### CONGRESS REPLY

The Medical Officer in charge of our Emergency Hospital was Dr. Bhaskar Patel, an M. D. of Freiburg University. He was House Surgeon in the Tropical Medical Hospital, Hamburg, and he has been in charge of two Emergency Hospitals in India since he returned from Germany and settled down in Bombay as a medical practitioner.

like plague such treatment is bound to have fatal results. They have learned with still greater regret that patients who had been removed to the hospital were allowed to return to their villages while still suffering from the disease, and that in one such case the patient actually died in a motor car on his way home."

If Government have in mind our method of disinfection and fumigation when they object to "the forms of treatment of plague" adopted by us, it may be said that a sample of our emulsion, with its formula, was sent to the Director of the Haffkine Institute, who expressed no disapproval of it. As regards fumigation, the Asst. Director of Public Health admitted that his "pot-method" was too expensive and too cumbrous to be of effective use in villages and he ultimately advised abandonment of it. All fumigation done since was according to our simple method.

The objection about bad roads comes with ill grace from Government who provided no hospital facilities for the poor sufferers in the Taluka, who when they knew that they could get no treatment at home naturally repaired to the Emergency Hospital. In no single case were the Con-

gress workers responsible for bringing the patients to the Hospital, and in several cases where the patients seemed to be in a critical condition and where requests for admission to the Hospital came, the relations were advised not to remove the patients.

As for the "patients who were allowed to return to their villages while still suffering from the disease" there were two such cases in which there was no help because the relatives and the patients themselves insisted on removal. Both were, however, in a fit condition to be removed.

The statement that a patient actually died in a motor car on his way home has no foundation in fact. That the results were more than satisfactory will be seen from the fact that whilst out of the 46 cases that Dr. Bhaskar Patel treated in their homes 14 proved fatal, only two died out of

the 17 patients who were treated in the hospital.

'Government regret to observe that their efforts in the direction of co-operation have been met by unwillingness and not infrequently by open discourtesy from the Congress workers.'

This is a cruel charge. It is possible to prove the contrary.

#### SUMMARY OF CHARGES GOVERNMENT HAVE FAILED TO ANSWER

1. That the Government and the local bodies failed to take prompt and proper preventive measures during the years 1932-35 and allowed the disease to grow in intensity and extent; that a Special Medical Officer was without any adequate equipment appointed in 1932 as late as September when there had already been several fatal cases before the end of April of that year, that in 1934 a Special Officer was appointed in March though the epidemic had broken out in December 1933, and that in 1935 the Government waited until the 3rd of April for the appointment of a Special Officer though the outbreak was reported as early as 21st October; that while in 1932 one Special Officer was deemed to be necessary for one village, in 1935 one Special Officer was expected to deal with 27 villages.

2. That the work of inoculation was woefully neglected, the ordinary Medical Officer at Virsad being expected to deal with the whole rural area. He performed 3000

inoculations in the six months between October and April. The Special Officer was appointed when the disease was admittedly on the wane. This Officer performed 2000 inoculations within the space of five weeks. The epidemic could have been substantially controlled if this Officer had been appointed immediately after the outbreak. The remark applies with equal force to the case of Borsad town where no Special Medical Officer was appointed and the Medical Officer in charge of the Municipal dispensary had to perform all the inoculations. He could not do more than 5000 in six months.

3. That the inoculations done by Mr. Shah, appointed by the Director of Public Health, were so badly done that many people suffered from excruciating aftereffects and that the doctor had to be removed, after he had performed only 300 inoculations, on grounds of incompetence.

4. That though the Government admit that "plague preventive measures are most effective, when they are undertaken systematically in the inter-epidemic periods, i.e., months when no plague cases are occurring", they had taken no such remedial measures in the inter-epidemic periods of 1932, 1933.

5. That though the belated grant of Rs. 2,000 was made for "the specific purpose of getting the whole town disinfected and fumigated with sulphur *before* the people returned to their homes", hurried attempts were made to use this grant *after* the people had returned to their homes.

6. That the doctors appointed by the District Local Board or the Public Health Department treated no plague patients.

7. That in Vachhial, a village with a population of 550 people, plague broke out in the first week of July, the infection was allowed to spread for a month, and that there were 10 deaths before there was any report. The Medical Officer at Virsad visited the place on the 6th February, disinfected two houses and inoculated 11 persons. Since then no one had been there and there had been 26 fresh deaths.

8. That the Mamlatdar of Borsad took no steps to remove or isolate the 27 immigrants from plague-affected Petlad in October, and that it was not until 5th April when there had been already nearly 300 deaths that he thought fit to call a conference of the Presidents of the Local Boards and the Municipality and of the Medical Officers at Virsad and Borsad.

9. That the Collector and the Assistant Director of Public Health had paid no visit to the area until the 31st of March (five months after the outbreak) when they paid their first flying visit.

10. The Government claim that their measures are "scientific and based upon prolonged experience of the best measures, possessed only by the Public Health Department". Here are a few facts:

(1) The Municipal staff in Borsad, advised by the Public Health Department, prepared the kerosene emulsion so clumsily that a girl of 13 years was almost burnt alive and died soon after in the hospital, a child and one of the two inspectors were badly burnt and the other inspector was so suffocated by hot kerosene fumes that he had to be carried to the hospital in an unconscious condition. As a result the Municipality stopped this work.

(2) When the work was restarted under the supervision of the Medical Officer and Sanitary Inspector specially deputed by the Assistant Director of Public Health, these officers so mis-handled a tin utensil that they narrowly escaped an explosion.

(3) Mr. Shah, the Special Officer for inoculations, had to be recalled for incompetence.

11. That though Dr. Bhaskar Patel requested the Assistant Director of Public Health to visit two plague patients in Pandoli where he happened to be on a visit he did not do so.

## Appendix IV

No. 138/33/9065-G  
General Department,  
Camp Office, Poona, 8th August 1935

FROM

H. K. KIRPALANI Esq. I. C. S.,  
Offg. Secretary to the Government of Bombay,  
General Department

TO

VALLABHBHAI J. PATEL, Esq. Bar-at-law,  
89, Warden Road,  
Bombay

SIR,

With reference to your letter dated the 3rd July 1935 addressed to the Secretary to the Government of Bombay, Home Department, regarding the communique dated the 15th June 1935 issued by the Director of Information on the subject of the plague epidemic in Borsad Taluka, I am directed by the Government of Bombay ( Transferred Departments ) to say that they do not consider that any useful purpose would be served by further discussion of the question and that accordingly they do not propose to take action on the subject matter of your letter.

I have the honour to be,

Sir,

Your most obedient servant,

( Sd. ) H. K. KIRPALANI

Offg. Secretary to the Government of Bombay  
General Department

## Appendix V

89, Warden Road,  
Bombay  
12th August 1935

DEAR SIR,

I thank you for your letter of the 8th instant in reply to mine of the 3rd July regarding the communique of the Director of Information and my communications thereon. I regret the decision of the Government. I had asked for an enquiry for the sake of the reputation of Dr. Bhaskar Patel and Congress volunteers who never spared themselves in their self-imposed labours. I am therefore inviting some independent friends to examine the papers already published supplementing it with such oral evidence they may require and pronounce their opinion upon them. I shall esteem it a favour if the Government will be pleased to authorise the departments concerned to assist the proposed committee to elucidate the truth.

I am,

Yours faithfully,

(Sd.) VALLABHBHAI PATEL

To,

The Secretary to the Government  
of Bombay,  
General Department,  
Poona