P.A.C. No. 419

PUBLIC ACCOUNTS COMMITTEE (1973-74)

(FIFTH LOK SABHA)

HUNDRED AND TWENTY FOURTH REPORT

[Report of the Comptroller & Auditor General of India for the year 1971-72, Union Government (Civil) relating to the Ministry of Health & Family Planning (Department of Health).]

LOK SABHA SECRETARIAT
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(1973-74)

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**Ceased to the members of the Committee consequent on retirement from Rajya Sabha *w.e.f.* 2-4-1974.

INTRODUCTION

I, the Chairman of the Public Accounts Committee as authorised by the Committee, do present on their behalf this Hundred and twenty fourth Report (Fifth Lok Sabha) on paragraphs relating to Ministry of Health and Family Planning (Department of Health) included in the Report of the Comptroller and Auditor General of India for the year 1971-72, Union Government (Civil).

2. The Report of the Comptroller and Auditor General of India for the year 1971-72, Union Government (Civil) was laid on the Table of the House on 18th April, 1973. The Committee examined paragraphs relating to Ministry of Health and Family Planning (Department of Health) at their sittings held on the 17th August, 1973 (AN) and the 18th August. 1973 (FN). The Committee considered and finalised this Report at their sitting held on the 10th April, 1974. Minutes of the sittings from Part II of the Report.

3. A statement showing the summary of the main conclusions/ recommendations of the Committee is appended to the Report (Appendix). For facility of reference these have been printed in thick type in the body of the Report.

4. The Committee place on record their appreciation of the assistance rendered to them in the examination of these Accounts Audit Paragraphs by the Comptroller and Auditor General of India.

5. The Committee would also like to express their thanks to the officers of the Ministry of Health and Family Planning (Department of Health) for the cooperation extended by them in giving information to the Committee.

NEW DELHI;
April 10, 1974.
Chaitra 20, 1896 (*S*).

JYOTIRMOY BOSU,
Chairman,
Public Accounts Committee,

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MINISTRY OF HEALTH AND FAMILY PLANNING
(DEPARTMENT OF HEALTH)

National Smallpox eradication programme

Audit Paragraph

1.1. Smallpox is caused by veriola virus of which there are different strains. Smallpox is transferred direct from man to man in a continuing chain of transmission, there being no carrier state and the recognised animal reservoir of the disease. There are four recognizable clinical types. (1) ordinary—the most frequent; (2) modified mild—and occurring in previou ly vaccinated persons; (3) flat and (4) haemorrhagic. The ordinary and the modified types account for about 95 per ce .t of the cases. The flat type is frequently fatal while haemorrhagic smallpox is almost inferiably so.

1.2 In most countries more than 85 percent of cases occur among persons who have never been vaccinated, and more than 80 percent among those less than 15 years old. In recent years, the mortality rate in several endemic countries has been about 15 percent. The fatality rate is the highest among children less than one year of age (the rate being as high as 24 to 32 percent in certain endemic countries). Vaccination of children at birth or as early in life as possible protects the highly vulnerable infant group. Primary vaccination of children occupies a central place in smallpox eradication programmes.

1.3. As in most of other infactious diseases, the house-hold is the basic unit in smallpox transmission which is most frequent in the close association of the family group. Various studies suggest that transmission results predominantly from virus shed from their respiratory tract. A smallpox patient does not usually transmit the disease to more than two or three additional persons, and transmission generally takes place as a result of face to face contact in the home, hospital or school. Outbreaks thus develop rather slowly in most circumstances and are mostly confined to geographically limited areas. Containment measures, consisting primarily in intensive vaccination of contacts and their near neighbours, are usually effective in stopping transmission. Cities, particularly their slums, constitute a continuing reservoir and source of widespread transmission. Effective control of smallpox in urban areas has regularly been found to reduce sharply the incidence in rural areas.

1.4. Immunity against smallpox wanes with time at a rate varying with the individual. After an attack of smallpox, immunity to the disease is virtually life-long. During the four or five years following successful primary vaccination in infancy, immunity is virtually complete. Whereas primary vaccination is of the highest importance, revaccination at periodic intervals serves to reinforce immunity. Available evidence suggests that, with present vaccines, successful primary vaccination followed by a successful revaccination five years later should provide durable immunity that may protect most persons throughout their life-times. However, greater protection is assured by receiving at 5—10 years intervals.

1.5. Whereas smallpox was once endemic throughout the world, its geographical limits have been increasingly constricted. In the first half of this century Europe, North America, Australia and several countries of Asia and North Africa were freed of the disease through extensive vaccination and containment measures. The continuing threat of the introduction of smallpox into all countries and the evident success of programmes even in countries comparatively limited health services led the Eleventh World Health Assembly in 1958 to propose that smallpox eradication be undertaken on a global scale. During the following eight years, several countries began systematic vaccination programmes directed towards smallpox eradication. Only a few were successful. Certain countries in which smallpox has earlier been eradicated relapses into endemicity. It became evident that additional technical and material assistance were needed for a programme developed and co-ordination a regional as well as world wide basis. The Nineteenth World Health Assembly in 1966 therefore adopted a resolution proposing intensification of the global smallpox eradication programme and this proposal was put into effect at the beginning of 1967. In that year, smallpox was considered to be endemic in thirty countries including, in Africa most countries south of the Sahara; in Asia, Afghanistan, India, Indonesia, Nepal and Pakistan; and in South America, only Brazil. In 1971, continuing endemic transmission was believed to be limited to seven countries; Afghanistan, Ethiopia, India, Indonesia, Nepal, Pakistan and Sudan.

1.6. With a view to start the smallpox eradication programme in India as a part of the global programme an Expert Committee was appointed in 1958 to examine the problem in our country in all its aspects and suggest ways and means for its eradication. On the basis of the recommendations of that Committee, pilot project were started

in February, 1960 for gathering first-hand experience of the difficulties which would be faced in the course of the vaccination drive and for framing estimates of the requirements of personnel and finance for the eradication programme.

1.7. The national smallpox eradication programme was sanctioned in January, 1962. It is being implemented through State and Union Territory Governments with Central assistance. Non-recurring expenditure is re-imbursed cent per cent by the Centre. Seventy five per cent of recurring expenditure was reimbursed by the Centre upto 1966-67 and sixty per cent during 1967-68 and 1968-69. Expenditure over and above the committed recurring expenditure as on 31st March, 1969 is being reimbursed cent per cent from 1969-70. Upto 31st Mrach, 1972 Central Government had paid Rs. 18.83 crores to the States. Apart from this, 1010 million doses of freeze-dried vaccine (approximate value Rs. 7.26 crores) received as gift from other countries and 281 million doses of freeze-dried vaccine (approximate value Rs. 1.97 crores) produced in the country were distributed to the State free of cost upto 31st March, 1972.

1.8. Between January, 1962 and March, 1963 one hundred and fifty-two smallpox eradication units-each consisting of one medical officer, one para-medical assistant, 12 sanitary inspectors (their training course is of one year duration), 60 vaccinators, 12 numerators, 2 health educators, one clerk, 3 drivers and 12 class IV staff—were set up. Each unit was to cover at least three districts|areas with a population of not less than 10 lakhs during two years of mass vaccination compaign under the programme. At the field level each sanitary inspector was to supervise the work of five vaccinators. Each unit was provided with one van with public address equipment, one jeep, one truck (one ton), sixty vaccination kits, three refrigerators for storing vaccine 60 thermos flasks for carrying vaccines by vaccinators and 72 cycles. After completing its work at a place, the unit was to move to another place within its allotted zone. At the State level there was to be one Assistant Director of Health Services and one statistical officer with supporting clerical and class IV staff.

1.9. In October, 1969, Government of India issued instructions for reorganising and strengthening the set-up. The (eradication) units were to be abolished and, instead, three vaccinators were to be attached to each block developbent area where malaria eradication had entered the maintenance phase and four vaccinators per block in other areas. One supervisor (sanitary inspector) was provided

for four vaccinators at the block level. In the block, vaccinators and supervisors are to work under the medical officer in charge of the primary health centre. At that district level, the organisation is under the district medical officer. At that level, a mobile team of five vaccinators has been provided to deal with special problem areas, for example, slums, nomadic tribes, labour colonies, construction projects, etc., and containment of outbreaks. Para-medical assistants (senior supervisors) have also been provided at the district level, one each for seven blocks.

1.10. The need to carry out an assessment of the programme are so far the first time in Delhi in March, 1963 when there was an outbreak of epidemic of small-pox although it was reported that more than 80 per cent of the population there had already been vaccinated. This assessment revealed that although 80 per cent of the total population had been vaccinated, there were several vulnerable pockets of population where vaccination coverage not at all adequate. The Ministry stated (November, 1972) that Delhi being the capital attracts a large number of visitors, particularly labour population which has no fix a place to stay, and it is difficult to vaccinate these people.

1.11. Although the total number of vaccinations done upto 31st March, 1969 was 69.71 crores (11.70 crores primary vaccinations and 58.01 crores revaccinations) it was estimated that there was a backlog of 6.7 crores people to be given primary vaccination. This was due to repeated revaccinations of easily accessible population.

1.12. According to the instructions issued in October, 1969, all efforts were to be made to carry out 100 per cent successful primary vaccinations in the vulnerable age group 0—14 years and eliminate the existing backlog in primary vaccinations. Apart from primary vaccinations of infants and young children, priority was to be given to urban communities and those groups of population (labour|migratory) who were most likely to be involved in the transmission of the disease. The number of primary vaccinations done since 1969 is shown below:—

Year	No. of primary vaccinations done (in crores)
1969	2·27
1970	2·36
1971	2·42

1.13. The number of primary vaccinations has been only slightly more than the total number of births. Thus, no significant dent on the backlog of primary vaccinations has yet been made. The Ministry stated (November, 1972) that in the Fourth Five Year Plan priority has been given to primary vaccination including neo-natal vaccination.

1.14. According to the instructions issued in October, 1969 by Government of India, 7,346 more vaccinators were to be appointed by the State Governments* over the strength (12,968 vaccinators) on 31st March, 1969, along with other ancillary staff (168 lower division clerks, 67 drivers and 99 class IV staff). The additional staff, cost of which is to be met by the Central Government, has not yet been appointed in Meghalaya, Bihar, West Bengal, Himachal Pradesh, Jammu and Kashmir, Tamil Nadu and Kerala, Madyha Pradesh Mysore, Delhi and Uttar Pradesh have appointed the additional staff only partially. The Ministry stated (November, 1972) that efforts were being made to persuade the State Governments to appoint the required staff.

1.15. The world Health Organisation Expert Committee on smallpox in its first report in 1964 had emphasised the crucial importance of independent concurrent evaluation of the results for timely identification of deficiencies in the programmes. Similarly, the report of the World Health Organization Scientific Group on Smallpox Eradication had pointed out in 1968 that the relative success of failure of the eradication programmes in East Pakistan (now Bangladesh), Argentina, Iran, Ghana and India appeared to be associated, most importantly, with inadequate supervision and assessment. In India, the vaccination done by the vaccinators is checked by the supervisor attached to the block. For this purpose a supervisor is required to make unscheduled visits to each vaccinator at least twice a week and, further, he is to examine 10 per cent of the primary vaccinations done by each vaccinator each week. In addition, the paramedical assistant under the District Medical Officer of Health is required to conduct scar surveys in at least two villages (selected at random) at least every second month. In addition to his other duties curative and other public health and family planning programmes, the Medical Officer-in-charge of a primary health centre supervises the programme both for detection of unprotected persons and for finding suspected cases of smallpox, and has the overall

*Excluding Tamil Nadu and Jammu and Kashmir for which details were not available.

responsibility for ensuring that the workers of the national smallpox eradication programme are properly performing their duties and giving them day to day guidance. Instructions do not specifically require him to test check the vaccinations. Besides, in November, 1972 of the 5,192 primary health centres functioning (each primary health centre should have two doctors) only 2,951 centres had two doctors each while as many as 2,101 had only one doctor each. The remaining 140 centres had no doctors. The District Medical Officer of Health is required to provide overall supervision over the programme. This is in addition to all his other responsibilities. At the State level, in most of the States responsibility for the programme has been given to an officer burdened with numerous other public health responsibilities. The Central Directorate (in the office of the Director General of Health Services, Government of India) has only two officers for this programme.

1.116. A joint team of the World Health Organization and Government of India in October-November, 1967 had observed as follows:—

Central Directorate

"The central directorate is inadequately staffed, ... and has no effective mechanism for exercising clear guidance and direction of the programme at state and local level. Its functions at present are limited to the collection of inadequate date regarding smallpox incidence and vaccinations performed as submitted by the States, receipt and distribution of imported freeze-dried vaccine, occasional organisation of meetings and conferences of state and local programme directors, the design and distribution of some health education and publicity material, infrequent visits to observe the implementation of state programmes, and liaison with international organisation.

State Level

"With few exceptions the state directorates act merely as channels for funding, for the transmission off instructions and for the receipt of periodic reports from the districts. They have usually assumed, at most a limited role in programme planning, implementation and assessment.

District Level

".....the programme was faced with major difficulties caused by dual control of vaccinators, part of the staff being under the control of the independent zila parishad and municipal boards and only part by district authorities. In most instances, the District Health Officer was found to be unable to exercise authority over vaccination staff of these local bodies, and this inability has led to a lack of discipline and confusion in the entire programme."

1.17. Even after the reorganisation and strengthening of October, 1969, the above weaknesses in the organisation continue. Till now, the programme does not provide for supervision of supervisors, there is need for supervision at all levels but this does not exist. The assessment is inadequate and independent concurrent evaluation of the results in little.

1.18. One consequence, amongst others, of this inadequate and poorly carried but supervision was the very small number of vaccinations done by a vaccinator on the average per day. The joint team of the world Health Organization and Government of India had reported (in October-November, 1967) that the number of vaccinations per vaccinator per day was, in Tamil Nadu, between 6.4 and 48.6 in Maharashtra between 0.5 and 11.3, in Uttar Pradesh between 3.1 and 37.2 and in Punjab between 0.1 and 12.7. The Ministry stated (November, 1972) that strengthening of central level organisation and State headquarter organisation was under consideration.

1.19. A most important part of every country's eradication programme is surveillance (disease notification, field investigations and containment of outbreaks). Field investigations and containment of outbreaks are the responsibility of the block-level vaccinator. The World Health Organisation Expert Committee on Smallpox Eradication in its Second Report (1972) has observed that in India surveillance activities have improved substantially but were not yet satisfactory in all States and that progress of the eradication programme would depend mainly on how rapidly surveillance and the still unsatisfactory reporting system can be improved. Gram pradhans and block development officers are responsible for reporting occurrence of cases to the District Medical Officers of Health. In 1971 and 1972, delays ranging from one month to fourteen months occurred in 8 States (Andhra Pradesh, Bihar, Madhya Pradesh, Maharashtra, Mysore, Uttar Pradesh, West Bengal and Haryana) in reporting cases of outbreak to the authorities responsible for arranging containment measures.

1.20. Each vaccination and revaccination is to be inspected subsequently and vaccination repeated in those in whom vaccination/revaccination was not successful. Accordingly, the vaccinators are required to inspect, at the time of their next visit to the locality, all vaccinations done by them earlier. In 1970-71 and 1971-72, only 72 and 74 per cent respectively of the primary vaccinations were subsequently inspected by the vaccinators. The percentage of inspection of primary vaccinations was between 50 and 70 per cent only in Andhra Pradesh, Assam, Kerala, Madhya Pradesh, Punjab, Rajasthan and Haryana in both these years.

1.21. The reported number of smallpox cases represents only a portion of the total that occur. The total number of reported cases in the world since the inception of the eradication effort in 1959 and that in India since 1966 are shown below:—

Year	Reported number of cases in the world	Reported number of cases in India
1959	93,132	
1960	64,645	
1961	89,067	
1962	97,800	
1963	1,22,927	
1964	59,441	
1965	59,445	
1966	67,784	32,616
1967	1,31,418	83,943
1968	80,209	30,295
1969	54,233	19,139
1970	33,304	12,750
1971	51,924	16,166

1.22. It is probable that less than 5 per cent of all cases were being reported in 1967; the actual number of cases is estimated to have been at least 2.5 million in that year. With all endemic countries engaged in eradication programmes, at least one-third of all cases are now believed to be notified. The actual number of cases

in 1971 is thus estimated to be about 1,50,000 in contrast to the 2.5 million cases estimated to have occurred in 1967. It is to be added that there are characteristic five to seven year cycles of smallpox incidence.

1.23. The joint team of the World Health Organisation and Government of India (October-November, 1967) had made a quick assessment of the programme in four States only (Maharashtra—reporting high incidence, Punjab and Uttar Pradesh—both reporting intermediate incidence, and Madras—reporting low incidence); it had taken only two months to complete its work. In addition, there have been a few other assessments by World Health Organization experts. These, however, were of a limited nature and were done in the space of 10 to 15 days. There has been so far no independent comprehensive assessment of the programme.

[Paragraph 32 of the Report of Comptroller and Auditor General of India for the year 1971-72 Union Government (Civil)].

1.24. The Committee enquired if any study has been made as to why the smallpox eradication programme had not succeeded in India as compared with some less developed African countries. The Secretary, Ministry of Health and Family Planning stated; "We have not been able to make any study, but we have depended upon the reports available in the W.H.O. This programme of smallpox has been reviewed from year to year and the last review took place in May this year and after the General Assembly meeting, both the Director General and I stayed on. We had detailed discussions with the Smallpox Division of the W.H.O. We found that the emphasis given there was again on the new strategy of surveillance and concentrated attack on areas where variola virus, transmission is going on."

1.25. At the instance of the Committee, the Ministry furnished a copy of the General Review on Smallpox made in the Annual Report of the Director General, W.H.O., presented at the 26th World Health Assembly held in Geneva in May, 1973. This review says: "The number of cases of smallpox increased with some 65,000 cases reported throughout the world in 1972 compared with over 52,000 cases in 1971. The areas in which this disease was thought still to be endemic during the latter part of the year were confined to Bangladesh, Botswana, Ethiopia, India, Pakistan and Sudan....Over 70 per cent of all cases were reported by Ethiopia

and India....For the second successive year India recorded an increase improvement in surveillance and more complete notifications. The principal endemic areas are now found in five Central and northern states (Uttar Pradesh, Madhya Pradesh, West Bengal, Bihar and Jammu and Kashmir), which together recorded 80 per cent of all cases in India. In the autumn, specially intensified programmes were initiated in these as well as in other northern states. During the year, the programme in Nepal was extended into the remaining western zones. A number of large outbreaks were detected and contained; except for a few outbreaks originating in neighbouring states of India, no cases were detected in Nepal after June...."

1.26. Asked about the figures pertaining to attacks and mortality, the Secretary gave the following figures for the period 1967 to 1973:

Year	Attacks	Mortality	
1967	83943	26225	It was a peak year.
1968	30295	7269	Cycle started coming down in 1968.
1969	19139	4156	
1970	12341	2240	
1971	16166	2706	
1972	27407	5457	
1973 upto June	49043	9902	Deaths so far reported.

1.27. The Committee pointed out that different figures were reported in the report published by W.H.O. (Smallpox Eradication—2nd Report), Ministry's Annual Report and Mid-term Appraisal and Fourth Plan proposals. In a written reply, the Ministry stated: "The figure for 1971 given in the report of the Ministry of Health and Family Planning for 1972-73 seems to be a printing mistake. The figure should read 16,166 instead of 60,166 as printed. The comparative figure given by WHO and in the mid-term appraisal document are given below:—

Year	WHO Document Cases	WHO Document Deaths	Mid-term appraisal document Cases	Mid-term appraisal document Deaths
1967	84902	Not given	83943	26225
1968	35179	Not given	30295	7266
1969	19281	Not given	19139	4156
1970	12426	Not given	10786*	1985
1971	15690	Not given	18049**	1123

* Provisional.

** upto 3-7-71.

In the past, the information on the incidence of smallpox used to be collected by the Central Bureau of Health Intelligence (CBHI) from the State Health Directorate. Simultaneously the information was also collected by Smallpox Eradication Programme directly from the State National Smallpox Eradication Officers. The figures given by the State Programme Officers were somewhat different in most of the instances as compared to the figures of the State Health Directorates Epidemiology Branch. The main reason for the difference was the fact that the programme officer after visiting the areas of outbreak used to take into the account the figures of confined smallpox cases and those cases which were additionally discovered by him during the course of his field visits. Such additional figures were transmitted regularly to the NSEP Section of the D.G.H.S. It is possible that the State Epidemiology Branch did not receive the additional information to maintain a correct record of figures. Although both sets of figures were available to the international agencies, they preferred to accept the higher figure and for domestic use figures provided by the CBHI (DGHS official agency) were mainly utilised. This discrepancy has now been corrected. At present, the Central Bureau of Health Intelligence has adopted a procedure in which only one agency viz. the State NSEP Officer has been authorised to report smallpox cases every week both to CBHI and to NSEP. For the sake of uniformity, the international classification of weeks has been utilized. Further, the cases are reported in the week in which these are detected and not according to the date of onset. The weekly smallpox reporting programme to be used at various levels has since been designed, printed and distributed to all the PHCs, District and the States with necessary instruction printed on these proformas.

After the introduction of the above mentioned measures, there are no differences between the figures collected by C.B.H.I. and Smallpox Section of the Dte. G.H.S. and those which are conveyed to W.H.O."

1.28. The Committee desired to know the reasons why the Smallpox Eradication Programme introduced in 1962 and subsequently reorganised in 1969 had not made the desired impact. The Secretary, Ministry of Health, stated: "It has also been causing concern to the Ministry. From 1962 onwards the strategy that was generally accepted was one of primary vaccination as well as revaccination carried out at frequent intervals and the emphasis was being laid on achieving the target of primary vaccinations and we thought that this strategy would lead to the eradication of disease. But over the last decade there have been rethinking on the emphasis given to

merely primary vaccination and revaccination and the strategy was also slightly shifted in favour of surveillance programme. Now, we are isolating this and dealing with them in a concentrated manner. So, from the later half of 1960—70 decade, the strategy is a combined one and continuing to put emphasis on primary vaccination and sufficient number of revaccination and also surveillance programme." The witness added: "So far as the primary vaccinations are concerned, we have been trying to make up for the backlog."

1.29. In a statement, the Ministry furnished the following figures of the estimated births and primary vaccinations for the years 1969 to 1972:

(In lakhs)

Year	Estimated births	Primary vaccinations
1969	196·49	227·02
1970	197·67	230·64
1971	203·87	241·87
1972	212·16	252·06

1.30. The Secretary, Ministry of Health and Family Planning, stated during evidence: "Now, percentage-wise the population covered by primary vaccination in the last year was 4.5 per cent and if we judge only from the point of view of the backlog, we have brought down the backlog from 67 million to about 37 million. 37 million is the latest figure. So, the emphasis is continued to be laid on covering the backlog of the primary vaccination as well as dealing with all of the new born children. That is the general target by which we are proceeding."

In regard to re-vaccination, the Health Secretary stated: "the progress has been generally satisfactory and if one is to judge by the number of re-vaccinations performed, it may not be very good but what has happened in the past is that re-vaccinations has been done by the vaccinators in conveniently accessible areas, in schools and common market places and places like that in order to account for a large number. But our own judgement is that revaccination has not been sufficiently effective in the rural areas and in the distant areas and this is a matter which is engaging our attention."

1.31. As regards the staffing, the Health Secretary stated: "The programme was to be implemented by the State Governments as a 100 per cent centrally sponsored scheme and we continued to offer it as a centrally sponsored scheme but in spite of this, the position regarding the sanctioning and appointment of staff particularly at the vaccinator level and supervisory level, in a number of States is very unsatisfactory. We have been taking up this matter repeatedly for the last few years but the State Governments have not responded to our request and this matter has been taken up not only by the DG but by me and by the Minister with the concerned States. Sufficient strength of vaccinators are still not in position. That is one of the things which is causing us concern."

1.32. The Committee desired to know the efforts made by Government to fill up the vacancies of vaccinators and the administrative difficulties in this regard. The Ministry of Health and Family Planning, in a note, stated: "100 per cent Central assistance was offered during the 4th Plan to the States/Union Territories to appoint additional vaccinators to meet the prescribed staff pattern. During the meetings of the Working Groups to discuss annual plan held in Planning Commission, the State representatives, including Health and Director of Health Services were requested to appoint full complement of staff. In the Zonal Administrative Medical Officers meeting taken by Director General of Health Services, the subject of appointment of staff was discussed with concerned State Health authorities. The matter was pursued through correspondence at various levels and during the visit of Central Officers to the States.

Some of the State Governments are hesitant to appoint the full complement of vaccinators, as they are perhaps afraid that these may become their committed liability after the 4th Plan period."

1.33. The following position regarding staff in the States was furnished to the Committee:

	PMA	Supervision	Vaccinators
(1) Staff as per Govt. of India norms	743	5109	22161
(2) Staff in existence as on 31-3-1969	351	1413	13696
(3) Additional staff required	392	3696	8465
(4) Additional staff sanctioned/appointed as on 31-3-72	203	2246	3811
(5) Additional staff sanctioned/appointed during Fourth Plan	339	2659	7348

1.34. During evidence, the Secretary stated that "the instructions about staffing pattern were issued only in 1969 and after that for two years there was reluctance on their part. We had been requesting the State Governments to take care and interest in appointment of staff and the performance after the end of 1972 had improved."

1.35. The Committee desired to know whether the Central Directorate are now adequately staffed. The Health Secretary stated: "The position has improved greatly. The Directorate is actually supervising and is fully involved in the programme. The defects in the data and reporting systems have been corrected." In a written reply, the Ministry stated: "The Smallpox Eradication Section of the Central Directorate is staffed with 2 officers and the ancilliary staff to plan and supervise the conduct of the programme for all the States and Union Territories. In addition Assistant Director General of Health Services, looking after vaccine production, has also been involved in field operation of the programme. In addition to central staff, 4 W.H.O. Epidemiologists are posted in States like Uttar Pradesh, West Bengal, Rajasthan and Orissa. Four more W.H.O. Epidemiologists have been made available for 2 years from October 1973 and the States of Madhya Pradesh and Bihar will be covered. With these additional inputs and mobilising other national staff during the campaign period, the Central Directorate is now planning coordinating and monitoring the programme in an effective way."

1.36. The Committee desired to know the progress made in appointment of second doctor in the remaining primary Health Centres. In a written reply, the Ministry stated: "There were 2101 Primary Health Centres with one doctor, 2951 with two doctors and 140 without doctors as on 30th June, 1972. The position has greatly improved during the last six months due to vigorous persuasion by the Directorate General of Health Services to the States to appoint the second Doctor where there is one and also to post doctors where there is none. Even D.O. letter from Union Minister for Health and Family Planning was sent to the State Health Ministers. As a result, there were 3134 Primary Health Centres with two Doctors, 1945 with one doctor and 118 without doctors as on 31st December, 1972.

Sustained efforts are being continued by the Dte. G.H.S. to recruit two medical Officers in each of the functioning primary health centres in the country.

Financial incentives are given by the State Governments/ Union Territory Governments to dectors to attract them to work in the rural areas. The Government of India has taken the lead to pay Rs. 150 p.m. to a Medical Officer who is posted in difficult and disadvantaged areas."

1.37. The Committee drew attention to the W.H.O. report of May, 1973 that in U.P., Bihar and West Bengal, the outbreak may be very serious in the near future. The Committee asked about the precautions taken in this regard. The Health Secretary stated: "We became aware of this high incidence as early as March and we were watching the general devloepment of the incidence. By May, we found that the number of attacks in Bihar and M.P. had also increased. We are now posting in collaboration with the W.H.O. our force in these four States. We are starting a special campaign from later half of this year. The idea is to reduce the incidence to the extent that it is possible to deal with it during 1974. In regard to the other States bordering these four States, we are concentrating our efforts, not on that intense scale, but slightly on a vigilant scale, so that in case of transportation to these States, we are in a position to deal with the situation by surveillance and containment. We have also called a meeting of the Health Secretaries in a week's time. We are reviewing all the measures. We have supplied them with adequate quantity of vaccine and we are fully geared to meet the situation."

1.38. The Committee enquired about the intensive steps taken to eradicate smallpox in these States. In a written reply, the Ministry stated: "An intensive campaign has been launched to eradicate smallpox from the country. The broad outlines of the campaign are as follows:—

I **Campaign in the urban areas** viz. **Municipalities/Corporations (during July and August, 1972)**

This comprises of 2 main components.

(a) *Active search for smallpox cases.* This should be carried out for one week in each month by mobilizing all the health staff of the municipalities/corporations and further augmenting their efforts by the additional staff from the concerned districts.

(b) After identification of smallpox endemic foci, effective containment and follow up will have to be initiated. For this, apart from the municipal health staff, the district mobile squad and the

other available staff of the district should be utilised. In this behalf, no difficulty is anticipated as some of the staff in the rural areas do not frequently visit the field because of lack of communication during the monsoon.

II. **Intensive Campaign (September to December, 1973)**

(a) *Endemic States.* (Uttar Pradesh, West Bengal, Bihar and Madhya Pradesh). The object of the Campaign is to detect and reduce substantially the present smallpox endemic foci in these States during the low incidence season to the extent that the programme will have a manageable number of remaining foci to deal with during 1974.

(b) *Other States.* In the remaining States, the objective should be to identify and eliminate all smallpox endemic foci by the end of 1973. Subsequently an operation mechanism will have to be established so that any importation of infection could be promptly detected and investigated (indicating that the importation is from endemic States) and contained.

The existing staff at the Primary Health Centres, District and State level including the state level surveillance team will participate as usual in this campaign. However, considering the urgency of the problem, 26 additional teams will be organised to strengthen the operations during the campaign period (September to December).

Each team will consist of an epidemiologist, one para-medical assistant and a driver. Of these 14 Epidemiologists will be drawn from India (from the National Institutes and other experienced workers in the field of smallpox) and 12 will be from W.H.O.

The Epidemiologists newly assigned to this campaign and the existing staff at the State level will be responsible for a group of districts (4-6) so that all problem areas in each of the States could be covered.

A State-wise active search for smallpox cases will be carried out by mobilizing all health and family planning staff in the district for one week each month in October, November and December. This search must include municipalities. This search will identify the problem areas in the districts. Intensive, well supervised containment measures will be immediately conducted in all these 'problem areas'.

Uniform methods of containment will be followed in all the States which includes identification of syndrome, detection of all

cases in the outbreak, investigations to trace the source of infection, cross notification (inter Primary Health Centre, inter district, inter State) by the quickest mode possible, vaccination of unprotected contacts in the area in immediate vicinity of the outbreak and follow-up visits to ensure that the outbreaks have been contained."

1.39. The Committee drew attention to the following figures showing the target and achievement:

Year	Primary Vaccination Target	Achievement	Revaccination Target	Ahievement
1969-70	537	226	1074	523
1970-71	446	227	1101	563
1971-72	338	229	1129	674
1972-73 *(Upto Sep. Provisional figures)	334·18	*116	1116	*360

1.40. The Secretary, Ministry of Health stated: "About the primary vaccination performance I give you the figures from 1966 onwards:

1967	18·56 million
1968	22 million
1969	22·70 million
1970	23·05 million
1971	24·19 million
1972	25·21 million
1973 (upto first 4 months)	6·54 This is provisional figure.

This would show that the percentage of population which we have covered these years from 1966 onwards in 3.4, 3.6, 4.2, 4.2, 4.4 and 4.5 last year. If we do not take the targets into account and only judge the primary vaccination by number, I may submit that there has been a steady improvement and we have been trying to cover th backlog.

"The same is the position with regard to revaccination. These figures are in millions.

1966	65·77	
1967	77·88	
1968	61·00	
1969	54·17	
1970	54·04	
1971	67·48	
1972	83·01	
1973 (Upto April 1973)	28·87	These figures are provisional.

The percentage population covered increased from 13.2, came down slightly and has again picked upto 15 per cent. This is so far as primary vaccination is concerned."

1.41. Asked to what extent the targets of primary vaccination had been achieved, the Health Secretary stated: "in 1969, the primary vaccination target that was achieved was 45.4 per cent in 1970 it was 55.9 per cent in 1971. it was 74.2 per cent and in 1972 it was 78 per cent."

1.42. Asked if the target itself had been reduced, the witness stated: "On examination, I find that the target was brought down from 10 per cent to 6 per cent (percentage to total population). Why it was brought down, I have not been able to get information. At present 6 per cent continues to be our target for the rest of the year for this plan and 5 per cent for the fifth plan." He added: "In so far as the fifth plan is concerned, the following are the targets that we have tentatively chalked out. In 1974-75, the target of the primary vaccination will be 29.01 millions; in 1975-76, it will be 29.69 millions; in 1976-77, it will 30.27 millions; in 1977-78, it will be 30.82 millions and in 1978-79, it will be 31.35 millions." The witness 29.69 millions; in 1976-77, it will 30.27 millions; in 1977-78, it will be organisational infra-structure had to be built up. If we build up the infra-structure should certainly able to achieve the targets."

1.43. Asked how it was expected to complete the programme by the end of the Fifth Plan. the Secretary stated that the expectation is that we will also make sufficient progress with regard to staffing."

1.44. Asked whether the present organisational set up was more effective than the earlier one, the Additional Secretary stated: "In view of the other aspect of surveillance and containment of new cases, which was really the hard-core which was not tackled earlier, it has much better effect; because, both the vaccinator and the supervisor are now looking into it and detecting cases. They make the combined effort of reporting as well as containing the infection." The Commissioner, Rural Health Services, stated: "There is better supervision of all the supervisors of these vaccinators right from the block level upto the district level."

1.45. At the instance of the Committee, the Ministry of Health furnished the following figures of number of vaccinations per day per vaccinator in different States in 1972:

	State	Vaccinations per vaccinator per day in 1972
1.	Andhra Pradesh	19·5
2.	Assam	18·2
3.	Bihar	17·5
4.	Gujarat	12·2
5.	Haryana	32·8
6.	Himahal Pradesh	28·5
7.	J. & K.	
8.	Kerala	14·0
9.	Madhya Pradesh	16·5
10.	Maharashtra	19·2
11.	Manipur	5·3
12.	Meghalaya	5·4
13.	Mysore	48·1
14.	Nagaland	
15.	Orissa	22·7
16.	Punjab	35·1
17.	Rajasthan	16·3
18.	Tamil Nadu	29·0
19.	Tripura	28·0

	State	Vaccinations per vaccinator per day in 1972
20.	Uttar Pradesh	34·4
21.	West Bengal	21·7
22.	A & N Islands	+
23.	Arunchal Pradesh	6·4
24.	Chandigarh	33·7
25.	D & N Haveli	27·7
26.	Delhi	33·3
27.	Goa, Daman & Diu	+
28.	IMA Islands	+
29.	Mizoram	+
30.	Pondicherry	-
	TOTAL—ALL INDIA	25·7

1.46. Asked to explain the wide range of disparity in figures in different States, the Secretary, Ministry of Health and Family Planning, stated: "I went into this question in some detail in the last few days; but we are not able to explain this wide-ranging disparity. We have to go into primary vaccinations and re-vaccinations done and the contour of the area. The only factor that is discernible is that in certain States, because adequate number of vaccinators are not in position, a certain amount of additional load has been put on the existing staff."

1.47. The Committee asked what action was taken pursuance to the report of the Joint Team of the World Health Organisation and Government of India submitted in 1967 pointing out this disparity. The Health Secretary stated: "We have consistently tried to increase the number of vaccinations done by the vaccinator per day."

1.48. Explaining the difficulty in implementing the programme, the Health Secretary added: "I have suggested that norms should be laid down for the performance of vaccinators in different States."

Asked how it would be ensured that the norms were actually achieved, the Secretary stated: "It will be the responsibility of the supervisory staff to achieve it."

1.49. Asked how it was ensured that the State Government complied with the directions in this regard, the Secretary stated: "The practice so far has been that we send our own team from the Directorate who act in collaboration with the State Government officials and correct the deficiencies when they come to notice and if they require in any way strengthening in a particular area due to local causes we agree to that." He added: "From 1970 onwards our team of officers are regularly going to the States." He further stated: "We are trying to fix up norms depending upon the vulnerability of the disease, percentage of primary vaccination achieved and general performance of our vaccination."

1.50. Asked how many States had yet to make vaccination compulsory, the witness replied: "Both primary vaccination and revaccination are compulsory in the States of Andhra Pradesh, Tamil Nadu, Punjab and Urban areas of U.P. Primary vaccination is compulsory in Bihar, Maharashtra, Mysore, Rajasthan, Orissa and West Bengal. In other States, primary and revaccination is compulsory when epidemic Disease Act is enforced and the outbreak is anticipated." Asked about the percentage of primary vaccination cases inspected, the Commissioner Rural Health Services replied: "78 per cent inspection now according to our records. As a matter of fact, it should be cent per cent."

1.51. Asked if the vaccinators faced resistance from public, the Assistant Director General stated: "To increase the acceptability of vaccination by the people, our field workers take the help of the local leaders, to influence the people to accept it. In addition to this, we adopt certain health education media to break this resistance. We have provided posters and other educational materials to all the primary health centres, so that they understand the significance of reporting smallpox cases and also the need for having vaccination." Asked if this was done in conjunction with the Ministry of Information and Broadcasting, the witness replied: "This is done by us directly. We cover all the regional languages. We provide the picture of a smallpox child to every health worker. This will be covered in a plastic cover so that it is not easily destroyed while in use. All the workers take these pictures and show them to the people. They enquire about the cases and also explain the need for vaccination." As regards assistance rendered by the Ministry of Information and Broadcasting, the witness stated: "Every night, there is a radio slogan about the importance of reporting cases and also having vaccination."

1.52. Asked to furnish the figures relating to the annual estimated, revised and actual expenditure incurred on S.E.P. during each

of the years of the Fourth Plan period, the Ministry of Health and Family Planning, in a written note, stated: "An allocation of Rs. 1600 lakhs was made for the Smallpox Eradication Programme during the Fourth Five Year Plan."

1.53. A statement indicating the figures relating to the annual estimates, revised estimates and the amount of Central assistance in respect of the State Governments on provisional basis is given below:

Smallpox Eradication Programme during fourth Five Year Plan

(Rupees in lakhs)

Original allocation	B.E.	1969-70 R.E.	Amount sanctioned provisionally ‡‡	B.E.	1970-71 R.E.	Amount sanctioned provisionally ‡‡	B.E.	1971-72 R.E.	Amount sanctioned provisionally ‡‡	B.E.	1972-73 R.E.	Amount sanctioned provisionally ‡‡	‡B.E.	1973-74 Revised Allocation after economy cut
N.S.E.P.	155·00	100·00	103·69	200·00	196·99	130·75	224·53	179·50	181·80	246·25	171·25	309·21	157·90	226·05
Supply of Freeze dried smallpox vaccine	—	—	—	—	—	—	70·00	70·00		75·00	75·00		80·00	68·93

‡‡Amounts released to states only (U. Ts. not included).

‡Excludes information in respect of some of the U. Ts.

1.54. The Ministry stated: "As per existing procedure funds are released on provisional basis based on estimated requirements. These are to be finally adjusted on the basis of certified expenditure figures received from the A.Gs. and excess/shortfall, as the case may be, has to be adjusted against their entitlements for subsequent periods or otherwise. This adjustment has not been made so far during the Fourth Five Year Plan."

1.55. The Committee desired to know the average cost per vaccination including all overheads in a recent year and the cost in each State. The Ministry of Health and Family Planning, in a written note, have stated: "On the basis of plan expenditure (Central release) for National Smallpox Eradication Programme for 1972-73 and vaccinations performed during 1972, the average cost of vaccination comes to Rs. 0.28. The cost is as low as Rs. 0.05 in Bihar and as high as Rs. 1.25 in Manipur. The reasons for very high cost in Meghalaya (Rs. 1.00) and Manipur (Rs. 1.25) are due to poor vaccination performance per worker, which is due to difficult terrain and scattered population. The very low cost on the basis of plan expenditure in Assam (Rs. 0.06) and Bihar (Rs. 0.05) was due to the fact that most of the staff in these States were in position before 1st April, 1969 and thus not eligible for Central assistance. The low plan expenditure of Rs. 0.07 per vaccination in J & K, Himachal Pradesh and Nagaland were due to the fact that no Central assistance for operational cost was utilized by these States. The low expenditure (Rs. 0.08) per vaccination in West Bengal was due to the utilisation of large number of volunteers in the programme. The low expenditure in Haryana (Rs. 0.12) and Punjab (Rs. 0.08) was due to good vaccination performance by each worker."

1.56. In a note furnished to the Committee, Ministry of Health stated the annual estimated requirement of Freeze Dried Smallpox Vaccine is 156 million doses. In the years 1971-72 and 1972-73, 52.35 million and 87.90 million doses respectively were produced in India. The Committee desired to know the installed capacity for manufacture of Freeze Dried Vaccines. The Assistant Director General stated: "By 1967 we had the capacity to manufacture 60 million doses of freeze dried smallpox vaccine; in addition we used to get gift vaccine from friendly countries. This satisfied our need and we could cover the population with the freeze dried vaccine alone. By our experiments we have found that liquid vaccine is unsuitable for the temperature prevailing in the country in certain parts and that by the time it reaches the areas it is hardly anything more than water. That is the reason why we decided that the manufacture of liquid

vaccine should be discontinued and should be replaced by freeze dried vaccine. Last year we had a capacity of 90 million doses and were manufacturing 87.9 million doses. This year we expect that, since all the equipment has been received from international agencies, we will achieve 156 million doses and during the Fifth Five Year Plan period there shall be no necessity for gift vaccine from any country. In fact, we have decided not to import any vaccine after this year."

1.57. Asked whether the capacity cannot be improved by working 2 shifts, the witness replied: "One freeze drying schedule takes about 28 hours and inbetween there should be some time for maintenance of the equipment. We run the equipment thrice a week." The witness added: "On the basis of the working days that are available, we have made an assessment that this is the maximum that we can achieve." Asked who had made the assessment, the witness replied: "The directors of the Institutions in consultation with the Government of India."

1.58. The Committee pointed out that there was shortfall in production due to non-commissioning of one unit at King Institute, Guindy because of shortage of staff. The witness stated: "The appointments are made by the State Governments. And during this period, the Madras Vaccine Institute was considering—of course they have their own thinking—that they are only to manufacture for the State's need and whatever is in excess, they will supply them to Government of India and that was one of the reasons why the other equipment was not put into commission. Secondly, there is a perpetual difficulty in Madras about the power supply.

1.59. The Committee asked about the reasons for break down of plant. The Assistant Director General stated:

> "This was due to the fact that we did not have the spare parts". He added: "We have got a few spare-parts; we are getting a whole range of spare-parts for the future."

1.60. The Committee desired to know how the price of vaccine produced in different units was fixed why it differed from unit to unit and whether the States paid at a uniform rate. In a written reply, the Ministry of Health stated: "The price of the vaccine has been fixed by the Cost Accounts Branch of the Ministry of Finance. According to their report the actual cost of prodution at the various institutes, worked out during 1971 taking into consideration the expenditure involved (both direct and indirect) during 1969, 1970 and

1971 and projected increase (3 per cent was allowed to cover possible price fluctuation) was Rs. 485 per ampoule (State Vaccine Institute, Patwadanagar), Rs. 0.607 per ampoule (Vaccine Institute, Belgaum), Rs. 0.929 per ampoule (King Institute, Guindy) and Rs. 0.721 per ampoule (Institute of Preventive Medicine, Hyderabad). Finally the Cost Accounts Branch of the Ministry of Finance advised that the arithmetical calculation of the cost of production and 10 per cent as profit may be agreed as price per ampoule at all the institutes.

The cost of production varied considerably from institute to institute as worked out by the Institutes themselves. These were Rs. 1.20, Rs. 1.05, Rs. 2.25 and Rs. 2.25 at S.V.I. Patwadanagar, I.P.M., Hyderabad, K. I. Guindy, V.I. Belgaum respectively. To remove the difficulty of lifting, the Government of India in a letter D.O. No. 7-49|68-C&CD, dated the 8th May, 1969 suggested to the Institutes that it would be fair and equitable if the increase was charged at a rate made up of the cost of production plus 10 per cent. Pending finalisation of cost fixation the price per ampoule of vaccine may be tentatively fixed at Rs. 1.05.

The present fixation at Rs. 0.75 per ampoule of vaccine shall be reviewed again during the Fifth Plan period by the Cost Branch of the Ministry of Finance and if necessary re-fixation of the price shall be done."

The Committee desired to know the steps taken to improve surveillance activities and reporting system in relation to eradication of smallpox. In a written reply, the Ministry of Health stated: "Following steps have so far been taken to improve the surveillance activities and reporting system:

(1) Each sub-centre and Primary Health Centre has been designed as 'Smallpox' Reporting Centre. Public has been informed by suitable display of 'mother and child Poster' in various regional languages requesting them to report and case of 'Fever and Rash'.

(2) N.S.E.P. staff has now been given recognition cards to visit schools, markets and to contact the local influential people to actively search for even suspected cases of smallpox.

(3) The other peripheral staff of sister departments in Public Health have also been given Post Card size recognition Card to enquire specifically from people if they are in the know of a suspected case of smallpox viz., 'fever with rash'.

(4) In order to create leadership for reporting of even suspected case of smallpox, particularly from the States wherefrom 'Nil' or negligible incidence is being reported, cash incentive scheme is being introduced. The States of Andhra Pradesh, Tamil Nadu, Mysore, Orissa and Maharashtra have already declared suitable cash awards to the first person reporting a case of smallpox from an area known to be free from smallpox."

1.61. The Committee asked if it was considered necessary by Government to have an independent and comprehensive assessment of the programme. The Health Secretary stated:

"We do not think, it is necessary. Our officers have visited to the problem States in the last two years. These assessments have been made by our own officers. Then there are assessments of teams of WHO. Results of these surveys are available to us and we are making us of these results. We feel satisfied with this."

1.62. The Committee pointed out that the Expert Committee on Smallpox in its first report (1964) had emphasised the crucial importance of independent concurrent evaluation of the results of the timely deficiencies of the programme. The Health Secretary stated: "So far as the assessment is concerned, the pattern of organization that we have set up provides for the concurrent assessment of the implementation of the programme. We do not feel the necessity of setting up a separate organization of concurrent assessment."

1.63. The Committee are thoroughly disappointed at the failure in the efficient implementation of the National Smallpox Eradication Programme which is so very important for the Nation's health. This programme which was launched in January 1962 and reorganised in 1969, is being implemented through Government of the State and Union Territory with Central assistance. Upto 31st March, 1972, the Central Government paid Rs. 18.83 crores to the States for the implementation of the programme. Apart from this 1010 million doses of freeze-dried vaccine (approximate value Rs. 7.26 crores) received as gift from other countries and 281 million doses of freeze-dried vaccine (approximate value Rs. 1.97 crores) produced in the country were distributed to the States free of cost upto 31st March, 1972. It is a matter of great concern for the Committee that in spite of so much expenditure, India continues to be one of the endemic countries. According to the Annual Report of the Director General, W.H.O. of May, 1973, the areas in which this disease was thought

to be endemic during the latter part of the year were confined to Bangla Desh, Botswana Ethiopia, India, Pakistan and Sudan. Over 70 per cent of all cases were reported by Ethiopia and India. According to the figures made available to the Committee, in the recent years the attacks of the disease were 83,943 in 1967, 30,295 in 1968, 19,139 in 1969, 12341 in 1970, 16,166 in 1971, 27,407 in 1972 and 49043 in 1973 (upto June).

1.64. The following factors which may explain the shortcomings of the programme came to the notice of the Committee:

(i) There is serious shortfall in the achievement of primary vaccinations. It is estimated that there was a backlog of 6.7 crores of people to be given primary vaccination upto 31st March, 1969.

(ii) Although vaccination units were reorganised in 1969 and instructions were issued that all efforts should be made to carry out 100 per cent successful primary vaccination in vulnerable age group 0—14 years and eliminate the existing backlog in primary vaccinations, the number of primary vaccinations given were only slightly more than the estimated births, with the result that the backlog was not cleared. The backlog has so far been brought down from 6.7 crores to 3.7 crores.

(iii) During the years 1969-70, 1970-71 and 1971-72 the achievement in primary vaccination was 226 lakhs, 227 lakhs and 229 lakhs as against the targets of 537 lakhs, 446 lakhs and 338 lakhs respectively. During the year 1972, the number of vaccinations given is stated to be 252 lakhs (the target for 1972-73 was 334 lakhs).

(iv) In case of revaccinations, the achievement during the years 1969-70, 1970-71 and 1971-72 was 523, lakhs, 563 lakhs and 674 lakhs as against the targets of 1074, 1101 and 1129 lakhs respectively.

(v) The main reason for non-clearance of the backlog was stated to be shortage of vaccinators and the staff by the State Governments. According to the norms laid down by the Government, 8465 additional vaccinators were to be appointed over the strength of 13,696 vaccinators as on 31st March, 1969. 7348 vaccinators have been appointed/ sanctioned during the Fourth Plan period. As regards the other staff against the additional requirement of 392

paramedical assistance, 339 have been appointed/sanctioned and against the additional requirement of 3696 supervisors, 2659 have been appointed/sanctioned. The shortage in staff continued in spite of decision of Central Government to meet cent per cent cost of the additional staff. The factors that contributed to this situation should be immediately gone into for appropriate action.

The primary Health Centres which apart from other duties are entrusted with supervision of the programme are also under-staffed. As on 30-6-1972, 2951 centres had the sanctioned strength of two doctors each, 2101 centres had only one doctor and 140 had no doctor.

(vii) The performance of the vaccinators in some States has not been uniform. Even during the year 1972, there was wide disparity between the figures of vaccinations per vaccinator per day. The average was 5.3 in Manipur, 5.4 in Meghalaya and 6.4 in Arunachal Pradesh and 12.2 in Gujarat. It was 48.1 in Mysore, 35.1 in Punjab, 33.7 in Chandigarh, 33.3 in Delhi and 32.4 in Uttar Pradesh. The average cost of vaccination is as low as Rs. 0.05 in Bihar and as high as Rs. 1.25 in Manipur. The reasons for very high cost in some States like Meghalaya and Manipur is due to poor vaccination performance per worker due to terrain and scattered population.

(viii) According to the World Health Organisation Expert Committee Report (1972) surveillance activities in India were being improved substantially, but were not yet satisfactory in all States; and progress of eradication programme would depend mainly on how rapidly surveillance and the still unsatisfactory reporting system can be improved.

(ix) There are not uniform rules in States regarding vaccination. In some States vaccination and revaccination is compulsory, in other States primary and revaccination is compulsory, when epidemic Disease Act is enforced and the outbreak is anticipated. Proper publicity for gaining public acceptance of the vaccination is also needed in consultation with the Information and Broadcasting Ministry.

1.65. While the Committee appreciate that the above difficulties in the successful implementation of the Smallpox Eradication were due to insufficient attention being paid to the programme by the State Governments in spite of the Central assistance, the Committee are strongly of the view that the Central Government who pay grants and guide the programme cannot absolve themselves of the responsibility for the failure of the programme. According to a joint team of the WHO and Government of India (1967), the Central Directorate looking after the programme was inadequately staffed and had no effective mechanism for providing effective guidance and direction of the programme at state and local level. It has been stated that with certain additions of technical personnel and mobilisation of other national staff during the campaign period the Cenral Directorate is now planning, coordinating and monitoring the programme in an effective way.

1.66. The Committee have been assured that during the Fifth Plan period the backlog of vaccinations will be made up. The Committee feel that the factors that led to the past failure need to be thoroughly examined with a view to at least deriving lessons for the future. The Committee would like to be informed about the programme made in clearing the backlog.

1.67. In fact, as early as 1964, WHO Expert Committee emphasised the crucial importance of independent concurrent evaluation of the results for timely identification of deficiencies of the programme. But excepting a quick review by the joint team of WHO and Government of India in 1967 in four States and a few other assessments done by WHO Experts lasting 10 to 15 days, no independent compresive assessment has been undertaken. This shows utter neglect and disregard on the part of Central Health authorities which the Committee deprecate. The Committee are strongly of the view that in view of the very unsatisfactory progress of the programme and its poor impact on eradication of the disease from India, it is necessary that an independent and comprehensive assessment of the programme should be undertaken immediately in order to identify the deficiencies of the programme in the past and take necessary corrective measures without any delay. In the meantime the Committee stress that eradication measures should be intensified with active cooperation of the State Governments. The Central Directorate dealing with the Programme in the Ministry of Health and

Family Planning should be adequately strengthened to meet the challenging problem.

1.68. The Committee are indeed alarmed over the reports that there is a serious danger of outbreak of the disease in Uttar Pradesh, Bihar, Madhya Pradesh and West Bengal. The Committee have been informed that an intensive campaign was proposed to be undertaken during the months of September to December, 1973 in these States with a view to detecting and reducing substantially the smallpox endemic foci during the low incidence season to the extent that the programme will have a manageable number of remaining foci to deal with during 1974. The Committee are anxious that constant watch should be kept over the endemic states. The Committee would like to be informed about the results.

1.69. The Committee note that upto 1967, 4 institutes controlled by the State Governments had the capacity to manufacture 60 million doses of freeze-dried smallpox vaccine. In addition, Government received gift vaccine from friendly countries. In 1972-73, the capacity was increased to 90 million doses. The present requirement of freeze-dried smallpox vaccine is 156 million doses. It is expected to increase the capacity further in order to achieve the production of 156 million doses during 1973-74. The Committee were assured that during the Fifth Plan period there will be no necessity for import of the vaccine. The Committee hope that the requirement of 156 million doses will be met by the factories fully. The Committee suggest that it should be examined how in case of further increase in the requirement, the production could be augmented.

1.70. At present the unit cost of production of vaccine varies from Institute to Institute. These were Rs. 1.20, Rs. 1.05, Rs. 2.25 and Rs. 2.25 at State Vaccine Institute, Patwadanagar, Institute of Preventive Medicine, Hyderabad, King Institute, Guindy and Vaccine Institute, Belgaum respectively. Pending finalisation of cost fixation of each factory, Government have fixed the rate at Rs. 1.05 per ampule of vaccine. The Committee hope that cost Accounts Branch of the Ministry of Finance will also go into the reasons for the wide variations in the cost of production so that steps may be taken to control the cost especially at King Institute, Guindy and Vaccine Institute, Belgaum.

National Filaria Control Programme

Audit Paragraph

1.71. Filariasis, widely prevalent in India, is second only to malaria among mosquito borne diseases. It is caused by a parasitic roundworm carried from man to man by certain species of mosquitoes different from the malaria-carrying mosquito, the anopheles. Two types of filaria parasites are prevalent in this country namely, Wuchereria bancrofti and Brugia malayi. The former is found only in man. Brugia contains eight species of which Brugia malayi is known to occur as natural infection in man (while the other seven species have been found in animals).

1.72. While human beings are the reservoirs of these parasites, mosquitoes are the carriers (vectors). Wuchereria bancrofti is transmitted by mosquitoes called Gulex fatigans and Brugia malayi parasites are transmitted by mosquitoes of a different species. Gulex fatigans breed in dirty water collections like drains, cess pit, disused wells, overhead cisterns and ill-constructed septic tanks. This mosquito is very ubigutous in its distribution and prolific in breeding.

1.73. The life cycle of microfilariae worm takes place partly in man and partly in mosquito. It is, however, months (usually one year) before the infection can even be detected in the blood of the human host. Persons with microfilariae usually are symptomless carriers. In some, however, symptoms like fever, swelling of the legs or arms appear at varying intervals and in some progressive increase in the swellings occurs after every attack. In some other, the infection may naturally die out without producing any disease manifestations. The percentage of individuals gradually increases in the younger age groups reaching the maximum at about 20 years. High mortality has never been marked feature of this disease. Nevertheless, apart from physical deformities and disabilities, the victims of this disease suffer from a social tigma.

1.74. Advent of synthetic insecticides and introduction of dicthylcarbamazine for civilian use for treatment of the disease following World War II raised the hope of controlling filariasis. Accordingly, an experimental project for control of Bancroftian filariasis was initiated by the Indian Council of Medical Research and the then Malaria Institute of India in co-operation with the Government of Orissa in 1949 for studying the comparative value of control of filariasis by antiparasitic and anti-mosquito measures. The observa-

tions in the Orissa project showed that mass drug administration, recurrent anti-larval measures (vector) and recurrent anti adult measures (vector) by indoor spraying were effective in some degree or other in control of the disease. Each one of them, however, had its drawbacks also. It seemed that a multiple approach using all the three methods was necessary for control of filariasis. Based on the results of the Orissa experiment as well as similar trials in other countries. Government of India decided to initiate a pilot programme for control of Bancroftian filariasis in the country. This programme, called the national filaria control programme, was launched in 1955-56. Its main objectives were:—

(1) to carry out filariasis surveys in the different States where the problem was known to exist in order to determine the extent of prevalence, types of infection and their vectors;

(2) to undertake large-scale pilot studies to evaluate the known methods of filariasis control in selected areas in the different States;

(3) train professional and sub-professional personnel required for the programme.

1.75. Twenty two survey units were allotted to nine States (Andhra Pradesh, Bihar, Bombay, Madras, Madhya Pradesh, Orissa, Uttar Pradesh, Travancore-Cochin and West Bengal)—then participating in the programme in 1955-56. Surveys were aslo conducted by the National Institute of Communicable Diseases and the three filariasis training centres set up by the Central Government at Ernakulam (in 1955), Rajhamandry (in 1963) and Varanasi (in 1965). One central survey team was also established in August, 1971. A typical survey unit consists of one Filaria Officer, one laboratory assistant, two insect collectors, two laboratory attendants, one driver-*cum*-mechanic and one watchman. It has a jeep, microscopes, laboratory and entemological equipments, chemicals, etc.

In 1951 the Malaria Institute of India had assessed that filariasis was prevalent in various degrees in all the States except Punjab, Rajasthan and Jammu and Kashmir and that 25 million people were living in filariasis areas. When the result of the surveys under the national filaria control programme became available in 1958, it was evident that the problem was far more extensive than estimated

previously and that about 64 million people were then residing in endemic zones of filariasis.

Forty seven control units were allotted to different States in 1958-59 and control measures (with the three methods) were undertaken.

At the request of the Director General, Health Services, Government of India, the Indian Council of Medical Research constituted in 1960 a committee, (called the First Assessment Committee) for evaluating the national filaria control programme. The principal recommendations of that Committee (in its report of 1961) were:—

1. Since practical difficulties were experienced in mass therapy and since also there were adverse reactions, mass therapy should be given up. Results of spraying of insides of houses (anti-mosquito measure) having not been satisfactory, this also may be given up.

2. Recurrent antilarval measures throughout the year should be undertaken using mosquito larvicidal oil. These measures were to be undertaken in endemic urban areas only. (The then prevalent view was that the focus of infection is in the urban areas from where it spreads to the surrounding rural areas).

3. Adequate disposal of sewage and sullage should be ensured.

4. The existing control units should be reorganised. Instead of a unit having about 240 staff, there are to be 8 types of units having from about 30 to 700 staff depending on the population.

1.77. Thus from 1961 onwards, the national programme sought to control the disease by controlling the vectors only in selected urban areas through use of larvicidal oil.

Survey—Further surveys were also done in different parts of the country. Out of 260 districts in 12 States survey was completed in only 145 districts upto 31st March, 1970. In addition, limited surveys were also carried out in four Union Territories. These surveys showed that 136 million people were living in endemic

areas. Of these 136 million people 51 million are in urban areas and 85 million in rural areas. The above figure of 136 million is, however, an under-estimate because even in known endemic zones many areas are yet to be surveyed. The most endemic zones are in Uttar Pradesh, Bihar, Andhra Pradesh, Tamil Nadu, Orissa, Madhya Pradesh, Gujarat and Kerala. State-wise distribution of areas surveyed and estimated population at risk are shown in Appendix (Report of the C & AG for the year 1971-72).

1.78. Although survey was not concluded, the survey units were abolished after two years in Bihar, Madras and Orissa. In Maharashtra the survey unit was converted into a control unit. The survey units in Andhra Pradesh, Kerala, Madhya Pradesh and Uttar Pradesh continue to function. In States where State survey units are not functioning, surveys are conducted by the National Institute of Communicable Diseases, the three central filariasis training centres and the central survey team. The progress of survey has been quite uneven. In Kerala survey was completed in all the districts by 1960, in Tamil Nadu in 12 out of 13 districts by 1958 and in West Bengal in 13 out of 16 districts by 1960. On the other hand, only 3 out of 19 districts in Mysore and only 6 out of 26 districts in Maharashtra have been surveyed so far. The Second Assessment Committee set up in 1970 by the Indian Council of Medical Research observed in its report that "even after 15 years of continuous efforts at delimitation of the problem even in known endemic States there are many areas yet to be surveyed to get a clear picture of the problem".

Control Measures.—Till 1965-66 there were 47 control units. This number increased to 73 in 1968 but with the abolition of 6 units in Kerala it was reduced to 67 in 1970. At present (March, 1972) there are 110 units.

1.79. The location of the 67 control units existing in 1970 and the population covered by those units are given in Appendix after an analysis of the data collected by these control units, the Second Assessment Committee came to the conclusion that, judged by the downward trend in vector density, infection and infectivity rates in mosquitoes and microfilaria rates in children in the age group of 5 to 15 years, the results were fairly good in 22 units which covered population of two millions. Results were indifferent in 23 units where the indices showed wide and erratic fluctuations while the results were poor in 20 units where there were upward trends in mosquito densities and other indices. Relevant data were not available for drawing any conclusions about the remaining two units

(Hyderabad and Visakhapatnam). The twenty-two units whose results are good are shown in Appendix. The performance of the different States in control measures has been uneven. In Tamil Nadu all the 4 units, in West Bengal the only existing unit and in Madhya Pradesh 2 out of 3 units were considered good. On the other hand 4 out of 5 units in Maharashtra, 4 out of 5 units in Orissa and 10 out of 14 units in Kerala were poor. The reasons for indifferent and poor results in the 43 control units were:—

1. breakdown in larvicidal oil supply; and

2. inadequacy of staff and supervision.

Application of mosquito larvicidal oil, if carried out properly under rigorous supervision and at the required intervals covering all the breeding places, is an effective method of reducing vector densities. Larvicidal measures, however, are effective only as long as they are being continuously implemented and any break in the operations, however, brief it may be, leads to rebuilding of mosquito density. The base of larvicidal oil is crude diesel. Since 1965 Indian Oil Corporation is the only supplier of larvicidal oil. The position of overall supply against indents issued for the various units during 1967-68 to 1970-71 is given below:—

Year	Quantity due for supply (indented during the year plus balance of previous year)	Quantity supplied	Quantity not supplied	Percentage of short supply compared to Quantity due for supply
			(in lakhs litres)	
1967-68	60·72	48·87	11·85	20
1968-69	59·27	38·50	20·77	35
1969-70	63·42	54·85	8·57	13
1970-71	49·60	39·31	10·29	21

1.80. Indian Oil Corporation was unable to supply larvicidal oil in full either because of its failure to formulate the requisite quantity of oil or inability to arrange its distribution to the various units.

1.87. The Committee desired to know the reasons for not carrying out survey after 1970. The representative of the Ministry stated: "When we started the programme of survey we thought that we would be able to cover the whole of the population in endemic areas, but the magnitude of the problem was so much that the survey could not be completed within 2 years' period for which the assistance to the States was available and we persuaded the States that they should carry on the survey where it was still incomplete so that the whole State was surveyed. Some of the States did it but some of the States, without the Central assistance, could not complete it."

1.88. In a written reply, the Ministry stated: "There are 115 districts in the endemic States which have still to be surveyed. It is proposed to establish 32 surveys units to undertake delimitation of filariasis to cover these 115 districts during the Fifth Plan period."

1.89. In reply to a question, the Deputy Director, National Filaria Control Programme stated: "The Survey was initiated in 1955-56." The witness stated that earlier ad hoc studies were carried out. Asked about the number of units sanctioned and formed, the witness stated: "Twenty-two survey units were allotted—3 in Andhra Pradesh, 2 in Bihar, 1 in Bombay (presently Gujarat and Maharashtra), 2 in Kerala, 2 in Madhya Pradesh, 4 in Orissa, 2 in Tamilnadu, 3 in Uttar Pradesh and 3 in West Bengal. Of these, 19 were established. Except West Bengal, all the other States had established the survey units."

1.90. The Committee desired to know the reasons for the West Bengal Government not setting up any unit. The Secretary stated: "From what I understand, the State Government had other facilities for making the survey and a survey was undertaken by the State Government with the setting up of units in 13 districts."

1.91. In a written reply, the Ministry stated: "The Government of India *vide* their letter No. F.8-4|54-Instt., dated the 4th November, 1954 allotted one control unit and three survey units under the National Filaria Control Programme to the Government of West Bengal. The three survey units were allotted to define the problem in the 16 districts in West Bengal. However, the State Government did not establish these units as the filarial zone in West Bengal is scattered all over the State and falls within the malarial zones. Having regard to this position and various other cogent grounds, operation of separate filaria control units, independent of Malaria Control Unit, was not considered by the State Government either suitable or desirable. The State Government felt that an integrated scheme of Malaria and Filaria Control operations

was likely to be more suitable and economical for West Bengal, as the malarial staff under the Malaria Control Programme with suitable augmentation and with the aid of the normal organisation under the Directorate of Health Services, West Bengal, would be able to carry out Filaria Survey and Control work. Accordingly, the Insect Borne Disceases Wing of the State Health Directorate conducted surveys in 13 out of 16 districts".

1.92. Asked about the time given to the units to complete the work, the Secretary stated: "A period of two years was given." Asked if the work was completed in two years, the witness replied: "Some of the units did not complete it." Asked if the work was still incomplete, the witness replied: "Yes, Sir." To a question why survey was abandoned by certain units in Bihar, Madras and Orissa, the witness replied: "The assistance was originally limited for a period of two years and the State Governments, which were mentioned, did not continue this beyond two years." Asked about the survey unit in Maharashtra, the witness stated: "It was converted into a control unit." Asked to explain the reasons for this, the witness replied: "That was the pattern which we suggested for the Third Plan." He added: "The pattern of assistance itself changed with the result that the assistance was given only for control units and they shifted to conversion of survey units. The point is that the survey was not completed and there was no alternative arrangement."

1.93. The Committee drew attention of the observations that the reasons for indifferent and poor results in 43 control units were (i) breakdown in larvicidal oil supply, and (ii) inadequacy of staff and supervision. The Committee desired to know the position of overall supply against indents issued for the various control units during 1971-72, 1972-73 and 1973-74. In a written reply, the Ministry of Health gave the following position:

Year	Quantity indented	Quantity supplied upto 31st March	Quantity supplied after 31st March
			(Quantity in litres).
1971-72	49,86,530	40,64,703	4,78,026
1972-73	83,35,690	48,27,420	9,05,600
1973-74 (upto July, 1973)	29,60,000	9,03,200	..

There were also complaints about the quality of the oil supplied. Efforts are under way for Indian Oil Corporation to be able to supply the full quantity of larvicidal oil required.

1.81. Out of the 67 control units existing in 1970 there were shortages of more than 20 per cent of field workers in 29 units (on the basis of staffing pattern recommended by the first assessment committee). Out of 20 units which were considered poor, fifteen were short of field workers by 33 to 84 per cent. Except Kerala, Madhya Pradesh, Andhra Pradesh and, partly, Uttar Pradesh and Mysore, the other States have not reorganised the control units on the lines recommended by the First Assessment Committee. Besides, in Gujarat, Maharashtra and Tamil Nadu the control units were engaged not only in urban but also rural areas. This has resulted in thinning out of resources as the staffing pattern was not designed for that purpose. Despite inadequacy of staff and supervision, the four control units in Tamil Nadu did well. In Kerala anti-larval measures have been carried out in one half of the urban area by the State units and in the other half by the local bodies. Poor results have been attributed to poor performance of the local body field staff.

1.82. The First Assessment Committee had recommended that a full time officer of the rank of Assistant Director of Public Health should be in charge of the Filaria Bureau to be established in each endemic State. Except in Andhra Pradesh, Kerala, Mysore, Madhya Pradesh and Goa there was no headquarters unit in any other State till March, 1971. Thereafter the headquarters units was set up in Bihar, Gujarat, Maharashtra, Orissa, Tamil Nadu and West Bengal by October, 1972. Staff deficiency was marked in the Kerala headquarters unit. Inadequacy of supervision was reflected in many ways in the performance of several units in different States. When the mosquito densities were abnormally high either in a year or in consecutive years, no effort seems to have been made to study the factor or factors responsible for such a situation. For example, it was not studied whether such rise in densities was due to climatic factors, namely, excess of rainfall leading to creation of new points (new areas of breeding), or any possible operational deficiency. According to the Second Assessment Committee, "the programme was carried out mechanically purely as a matter of routine without any critical approach, without any concurrent assessment and without making any variations to suit local conditions.....".

1.83. The Ministry stated (October, 1972) that the headquarters unit of the programme in the National Institute of Communicable Diseases used to examine monthly reports received from the units and issue instructions to improve their functioning and that the officers of the Institute also used to visit the control units at periodical intervals and communicate their comments about functioning of the control units.

1.84. The headquarters bureau in the National Institute of Communicable Diseases had to shoulder the joint responsibility for both the national malaria eradication programme and the national filaria control programme. The Second Assessment Committee observed that in the prevalent circumstances emphasis should be on the former is understandable, particularly in view of limited financial resources. In the circumstances, one cannot help getting the feeling that it would have been preferable if lesser number of units had been established with the necessary complementary staff, and the State Bureau organised according to the staffing pattern recommended so as to keep within the limits of financial resources available, and to ensure proper execution and supervision of the work in different units in the States."

1.85. *General.*—To the extent the surveys have been completed, it is clear that 136 million people live in the endemic areas of filariasis in the country. Over 12 million people harbour microfilariae in their blood and 8 million have signs and symptoms of the disease. There is also evidence that the disease is spreading to areas where it did not exist before.

1.86. *Expenditure incurred by Central Government.*—Apart from the expenditure incurred on the headquarters unit and the training centres, during 1955-56 to 1960-61 Government of India provided to the States free of cost insecticides, drugs, larvicidal equipment and vehicles while State Governments met the operational cost. From 1961-62 free supply of drugs was discontinued but Government of India undertook to meet 50 per cent of the cost of additional staff above the level at the end of 1960-61. Since 1969-70 the quantum of assistance has been increased to 100 per cent including free supply of mosquito larvicidal oil, material and equipment as well as operational staff employed in various units. No Central assistance is, however, admissible for the level of staff as on 1st April, 1969. Expenditure incurred by Central Government on this programme upto 1970-71 (including assistance to States) was Rs. 5.94 crores.

[Paragraph 33 of the Report of Comptroller and Auditor General of India for 1971-72 Union Government (Civil)].

1.87. The Committee desired to know the reasons for not carrying out survey after 1970. The representative of the Ministry stated: "When we started the programme of survey we thought that we would be able to cover the whole of the population in endemic areas, but the magnitude of the problem was so much that the survey could not be completed within 2 years' period for which the assistance to the States was available and we persuaded the States that they should carry on the survey where it was still incomplete so that the whole State was surveyed. Some of the States did it but some of the States, without the Central assistance, could not complete it."

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was likely to be more suitable and economical for West Bengal, as the malarial staff under the Malaria Control Programme with suitable augmentation and with the aid of the normal organisation under the Directorate of Health Services, West Bengal, would be able to carry out Filaria Survey and Control work. Accordingly, the Insect Borne Disceases Wing of the State Health Directorate conducted surveys in 13 out of 16 districts".

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1973-74 (upto July, 1973)	29,60,000	9,03,200	..

1.94. During evidence, the Secretary, Ministry of Health, stated: "The indents are made through the DGS & D and these are being canalised through the IOC." The representative of the DGS & D stated: "As far as the supply of larvidical oil is concerned, before 1966, other oil companies were also holding rate contracts. From 1967 onwards, IOC alone is holding the rate contract and making supplies. The reason is that other foreign oil companies expressed their inability to continue the supply. As regards supplies from IOC are concerned, if we go through the supplies made by all the companies, when they were having contract from 1964 to 1967, the average supply has been of the order of about 43 lakh litres and the requirement has also been on an average 47 lakh litres. When the IOC were making supplies during 1967 to 1971, the average supply has exceeded to 45 lakh litres, *i.e.*, much more than all the four foreign oil companies were supplying before." Asked about the price charged by IOC and the other companies, the witness stated that "IOC's prices were less by 5 p. per litre as compared with other companies refused to participate in continuing the supplies when IOC came in." Asked about the reasons for this, the witness stated "We have not gone into the reasons. As far the supply is concerned, the IOC had undertaken to supply the entire quantity as required by the Health Ministry." Asked what steps were taken in the past to meet the shortfall in supplies for this vital activity, the witness stated: "As far as the backlog and shortfall is concerned, it has been mentioned by the Health Ministry that there had been no appreciable increase in the requirements, but they had been adding backlog on supply while formulating their new requirements. For example, in 1968-69, they indicated a requirement of 59.27 lakh litres. At that time there was a backlog of 11.85 lakh litres. It would indicate that their actual requirement was only 47 lakh litres. Against that, the actual supply was 3 lakh litres. There was a shortfall of 35 per cent against their total requirements including the backlog. But if their current requirements were considered, there was a shortfall of 18 per cent only." Asked what steps were taken to make up this shortfall by getting the supplies from other companies, the witness replied: "As the Indian Oil Corporation had undertaken to meet the full requirements, we did not go into the question as to why the other oil companies are declining to supply." The witness added "that when we found that the supply in 1969 was not to the requirement, a separate enquiry was issued to other oil companies, but they expressed their inability. The representative of the Ministry of Petroleum and Chemicals stated: "We have power, under the Essential Commodities Act, to compel them to produce M.L.O. oil. We have not used these powers. When we took these powers, we knew that once we have them, they will comply with our directions. The cost is not the consideration. The quantity required is very small. As

soon as we have got over our logistical problems, we will see that the stocks of the desired specification are kept all the time with us." The representative of the Ministry of Supply stated: "There have been constant review and progress meetings of the Review Committee. They were constantly reviewing the requirements of the various units under the Ministry of Health and our Ministry and the IOC were also associated with these meetings." Asked since when these meetings had been held, the representative of the Ministry of Health replied: "Actually the first meeting was held in September, 1971 because we thought that there were three parties concerned and if we could sit together we could streamline the process of indenting and supply. One of the decisions taken at the meeting was that we should inform the IOC well in advance what would be our yearly requirements; and we have been telling them about that and at no stage had we been informed by the IOC that they would not be able to meet our full requirements."

1.95. The Committee asked why the indents were not placed on the IOC direct instead of through the DGS & D, the Secretary, Ministry of Health, replied: "At that time, the instructions were that we should operate through the Ministry of Supply. They are responsible for the inspection and supplies made and there are quality test they make at the time of supplies."

1.96. The Committee drew attention to the following extract from the minutes of a meeting held on February 17, 1972:

> "At the time of delivery of supply, the oil is inspected by the Inspectorate of DGS & D so as to ensure that the MLO conforms to the specifications laid down by the ISI. On various occasions, samples inspected were found to be sub-standard. In such occasions, this has resulted in undue delay in supply of standard quality of oil to the units. It may be further stated that even during 1970-71, the oil supplied by IOC from Madras was found to be sub-standard while inspected by the DGS & D. This caused great difficulties to units in Tamil Nadu for want of supply of MLO oil."

1.97. The representative of the Ministry of Petroleum and Chemicals stated: "This can be divided into two parts. One is, before the product is offered for inspection, it is blended. Then, it is offered for inspection and it is possible that at this stage the product may not be found to be according to specifications. A new batch is given. This is a sort of thing which can happen basically, because IOC has no control over the production of other refineries." Asked about

the storage life of the material, the Secretary, Ministry of Health, stated: "According to the ISI specifications, the material is supposed to last for more than 18 months. But, normally our experience shows that the storage period will not be for more than 18 months and it will be between 12 and 18 months." Referring to the complaints from field units, the witness stated: "So far as the complaints with regard to quality are concerned, I have gone fairly in detail into all the complaints that have been received about quality. There were only 5 complaints relating to the period 66—68. After that we have had no complaints from the field staff. But certain consignments were rejected at the pre-despatch inspection stage by the DGS & D. But, at the consumer end, we have had no complaints about quality after 1968. Our instructions are that sample should be drawn from these receipts, they should be tested and a report should be sent to us within 45 days. We have not received any complaints during the last 4 years." Asked if full payment was made in the case of sub-standard supplies, the witness stated: "This was brought to the notice of the Directorate General of Supplies and Disposal and what I understand is that in certain cases the stocks were reblended. This relates to consignments rejected at the predespatch inspection stage by the DGS & D." Asked if IOC found marketing of diesel oil more profitable than that of MLO, the representative of the Ministry of Petroleum and Chemicals stated: "My submission is that even if the marketing of MLO is not profitable, this is a national necessity and IOC as a public sector organisation, will undertake this. If the Management fails, it has to be changed. The management has to comply with this requirement. Of course, they have been having some genuine difficulties and we, in the Ministry and the Government, are trying to remove them as best as we can." The witness added: "The production can be arranged whenever necessary. But the Cochin Refinery could not produce, despite sincere efforts, because their plant is not designed for that purpose. We had it produced at Bombay and moved it in a coastal channel to Cochin, stored it separately and supplied from Cochin. At a given moment, if somebody says, 'produce it', it cannot probably be done, but with a little notice, it can be done. We are overcoming the difficulty now. By the end of the year, no refinery in the country would be able to say, 'we are not able to produce'."

1.98. To a question whether any priority was accorded to the indents placed by the Health Ministry, the representative of the Ministry of Petroleum and Chemicals stated: "Judging from the performance, the conclusion would be, we did not. To that, I plead guilty. But we should attach to it the highest importance and with that end in view we are setting up a machinery in our Ministry and

we expect that these complaints would disappear and at least this would never be quoted as a reason for non-fulfilment of the programme." As regards the quality, the witness stated: "In the matter of quality, our judgement has been that they have not failed." He added: "Prior to despatch it is sub-standard but when it is supplied, it is of correct standard." Referring to shortfall in the supplies for the year 1972-73, the witness stated: "The year 1972-73 and the time between April, 1973 and now has probably been one of the worst periods for us; but I would put it before you chronologically. The 1972-73 demand represented, for the first time, the requirements of 18 months and not of 12 months."

1.99. The Committee desired to know the difficulties in the past in continuous supply of larvicidal oil by the Indian Oil Corporation. In a written reply, the Ministry of Petroleum and Chemicals stated as under:

"Progressive withdrawal by the foreign oil companies from the supply of MLO on account of their limited product availability which was increasingly required by them to meet the requirements of their retail outlets and agency network. It is for this reason that the foreign oil companies have been progressively giving up Government business. As the IOC was set up, *inter alia* to progressively take over the entire Government business, the gradual withdrawal of the foreign oil companies has broadly fitted in the overall concept of planning in this regard.

Owing to a very large stress on minor lift irrigation schemes, the demand for light diesel oil sharply increased in the country from a mere 617,000 tonnes in 1961 to 1.2 million tonnes in 1971. It has further increased to 1.38 million tonnes last year an increase of 123 per cent since 1961. This phenomenal increase in the demand for LDO necessitated its production in accordance with the ISI standards. Since LDO provides the base for the blending of MLO, it was also necessary to produce small batches of LDO with more stringent specifications to exclusively meet the requirements of MLO. This created problems of segregation of production and blending facilities at the refineries as well as at the distribution points. It would be appreciated that if large batches of LDO in accordance with the stringent specifications of MLO had been produced, there would have been an overall reduction in the availability of middle distillates (kerosene and diesel oils). These problems have since been overcome. Segregation facilities have been installed at a number of refineries and also at the adjoining distribution facilities of the IOC.

A large part of the requirements of NICD for MLO is met in barrels. Whenever there is shortage of steel, as per instance due to plant failure at HSL or due to extensive power cuts etc., barrel

availability sharply comes down. The position in this regard has also not stabilised with the arrangements made for large import of steel for fabrication of barrels.

During 1973 from March onwards an acute world-wide scarcity developed of refined petroleum products and it became necessary to sharply curb the consumption of kerosene oil, of aviation fuel for national and international flights including the Indian Air Force and of all other consumers with a view to maximising the production of HSD. This was necessary to make available HSD oil for completing the harvesting of the rabi crop and also its movement from the fields to the storage, distribution and the sale points. The demand for HSD oil further increased because of very steep power cuts in most parts of the country during these months.

In many cases, as can be easily verified by a detailed check on any given date, pending orders of MLO do not clearly give an idea of the outstanding orders on the IOC. A number of units clearly stipulate that they want deliveries at a given rate every month or every alternate month. Similarly some quantities are required to be picked up by the units themselves. In all these circumstances a mere comparison of pending orders with the supplies made on any given time would not automatically reflect the pending orders at that point of time. This point has been amply illustrated in the detailed breakdown of pending orders.... On 30th September 1973, as will be seen from the figures....some 84 per cent of the outstanding orders could not be complied with by the IOC owing to the inability of NICD units to receive the same.

Soon after the meeting of the Public Accounts Committee with the representatives of the Ministry of Health and this Ministry on August 18, 1973, in connection with the supplies of MLO to the National Institute of Communicable Diseases (NICD), a special machinery was set up in this Ministry to ensure 100 per cent satisfaction in supplies of MLO to NICD against its requirements. As a result, the supply of MLO by the IOC has since improved considerably. The details of progress achieved in this direction are as follows:

	Lakh litres.
(a) Total quantity indented by NICD for 1972-73	83·3
(b) Quantity supplied upto 31st March, 1973.	48·3
(c) Balance outstanding as on 1st April, 1973.	35·0
(d) Quantity supplied between 31-3-73 upto 31-7-73. . . .	9·0
(e) Balance as on 1-8-1973.	26·0

The Indian Oil Corporation was advised by the NICD *vide* its letter No. 2-20|73-NFCP(P), dated 7th August, 1973 to treat all outstanding orders as on 15th August, 1973 against 1972-73 orders, as cancelled and to make supplies only in regard to orders specifically placed during 1973-74.

The latest position of the orders that have now been received from the NICD is as under:

	Lakh litres.
(a) Total quantity ordered on IOC.	23·7
(b) Quantity supplied upto 30-9-1973.	16·7
(c) Balance orders outstanding as on 1-10-1973.	7·0

IOC was unable to arrange supplies in respect of 7.0 lakh litres as per item (c) above owing to the following reasons:

	Lakh litres.
(a) The indentors have asked the IOC to defer supplies for.	3·5
(b) Indentors confirmation awaited for.	1·0
(c) Indentors desire deliveries only during October and subsequent months for	1·5
(d) Quantities (left over) of less than tank wagon/box-wagon tank-truck loads to be treated as cancelled. (*A tank wagon normally requires a minimum load of 25 KLs and tank truck a minimum load of 132 KLs.*)	1·0
TOTAL	7·0

There are at present adequate stocks of duly tested product at all the supply points, including Bombay and Cochin. Steps have thus been taken by the IOC to ensure liquidation of all pending orders. We hope to maintain this position in subsequent months as well and trust that there would be no occasion for the NICD to lay the blame for any failure in the implementation of its programme on inadequate availability of MLO from the IOC."

1.100. The Committee asked how in Gujarat, Maharashtra and Tamil Nadu the control units were engaged not only in urban areas but also in rural areas resulting in thinning out of resources. The Secretary, Ministry of Health, stated: "We have some difficulty here, because the First Assessment Committee felt that the diffusion was really from the urban areas. The Second Assessment Committee has shown that this may not altogether be correct. There is a certain amount of counter-diffusion also from the rural areas to the urban areas. There was also the difficulty created by bad drainage facilities. The control was shifted in the II and III plans to

urban areas. When this emphasis was brought to the notice of the State Governments, most of them re-organised the survey units, but a few states, as Hon. Members pointed out, were continuing with the units in the rural areas; but the population covered is hardly about 4 to 5 lakhs in these areas. The endemiety of filariasis in urban areas compared to the total of urban and rural populations is somewhat high. The emphasis or priority will have to be towards the control of the disease in urban areas. In the Vth Plan also, there is a certain amount of difficulty because of the limited nature of the available resources. The Task Force in the Steering Group have recommended that we should continue to operate the programme only in the urban areas."

1.101. The Committee asked about the action taken on the recommendation of the First Assessment Committee for putting of a full-time officer of the rank of Assistant Director of Public Health in charge of the Filaria Bureau to be established in each endemic State. The Secretary, Ministry of Health, stated: "The basis of this recommendation was that previously in States where filaria control programme was going on, the person responsible at the State level, was looking after both malaria eradication and filaria control programmes. The recommendation of the Committee was that the officer could not give due attention to the filaria control programme. So, there should be a separate filaria bureau in the bigger States with four or more units. There are only 12 such States whereas there was a need for a separate filaria bureau under the charge of an Assistant Director; and that has been achieved." In a written reply, the Ministry stated: "There were five Filaria Headquarters Bureau in Andhra Pradesh, Kerala, Madhya Pradesh, Mysore and Goa at the beginning of the Fourth Five Year Plan. Seven more Headquarters Bureau were allotted to as many endemic States during the Fourth Plan period. All these have since been established and at present 12 Filaria Bureau are functioning each with a full time Assistant Director."

1.102. The Committee drew attention to the observation made in the Audit paragraph that "Inadequacy of supervision was reflected in many ways in the performance of several units in different States. When the mosquito densities were abnormally high either in a year or in consecutive years, no effort seems to have been made to study the factor or factors responsible for such a situation. For example, it was not studied whether such rise in densities was due to climatic factors, namely, excess of rainfall leading to creation of new ponds new areas of breeding or any possible operational deficiency." The Director, NICD, stated: "In this connection, I would submit that the Committee have taken the average of mosquito density of the particular unit. It could so happen that in some units due to some factors the work might have been disrupted and mos-

quito density might have gone up for some time. The average could be pulled up and the unit's performance could be rated low."

1.103. "The second point of yours that due attention was not being paid—I may submit that this is a built in the programme. When anti-filarial measures are to be carried in the area, things like rainfall etc., are properly taken care of. I do not fully agree with what has been stated in the Report."

1.104. The Committee asked whether there was a follow-up method to watch the implementations of the directions given by the Ministry. The Deputy Director, NFCP, stated: "We are keeping a watch on all the States. The Central Survey Team makes periodic visits at different points of time to see whether the microfilariasis carriers are there or whether they are locally available in the younger groups. Filaria Bureau were set up in 11 States and in Goa. In States with less than 3 units we considered it unnecessary to have a full time Bureau exclusively to look after the interests of the filaria programme."

1.105. Asked about the present position regarding shortage of staff, the Director, NICD, stated: "The staffing pattern which had been recommended by the Government of India in 1969 in respect of each unit, more or less, all the States have adopted that staffing pattern and we have got the information about the posts sanctioned and all that. As far as the Filaria Control Programme is concerned, we have no shortage of staff in respect of the posts which have been sanctioned." The Committee desired to know whether Government took any steps to expedite establishment of Central units/bureaus. In a written reply, the Ministry stated: "The physical targets and the quantum of central assistance for each year are intimated to the participating States each year at the time of annual plan discussions in the Planning Commission where the State representatives also participate. Subsequently, these were again intimated to the States by the Department of Health as well as by the Programme headquarters at the NICD, Delhi. The States were requested at periodic intervals to implement the programme to achieve scheduled targets. Letters at different levels viz. the Programme Headquarters, Commissioner, Rural Health Services and Mobile Hospitals, Deputy Secretary, Ministry of Health, Joint Secretary, Ministry of Health and the Union Health Minister were issued.

From the various communications received from the participating States, the following two factors were found to be responsible for delayed implementation of the programme:

1. Delay on the part of State Governments to sanction the proposals pertaining to the implementation of the NFCP submitted by the State Health Directorates.

To overcome this difficulty, all the participating State Governments were addressed by the Ministry of Health and Family Planning to accord highest priority to the implementation of NFCP.

2. The other reasons for delayed implementation was that the States after being informed of the targets were referring their proposals to the Government of India for clearance. The procedural delays emanating from submission of proposals by the State Health Directorate to the State Governments and the State Governments to the Central Government contributed to the delayed implementation. To avoid this, circular letter from the Department of Health was issued *vide* letter No. F.6-1|69-C&CD, dated 20th January, 1971, to all the States that proposals need not be referred to Government of India for clearance if there was no deviation from the approved pattern."

1.106. The Committee asked whether all the State Governments had reorganised the control units. In a written reply, the Ministry stated: "The recommendations of the First ICMR Assessment Committee were accepted in principle by the Government of India and circulated to the States etc. for implementation. However, due to National Emergency in 1962, the Government of India asked the States not to proceed with the implementation. Again in 1963, the Government of India asked the States to implement the recommendations from their own resources. The control units in Andhra Pradesh, Kerala, Madhya Pradesh and Goa were reorganised before the commencement of Fourth Five Year Plan (1968—70) as indicated below:—

Name of the State	Reorganisation control of Units.
Andhra Pradesh	3
Kerala	14
Madhya Pradesh	3
Goa.	3

Despite the continuous efforts made by the Programme Headquarters (NICD) Directorate General of Health Services and the

Ministry of Health, the States of Assam, Bihar, Gujarat, Maharashtra, Mysore, Tamil Nadu, U.P. and West Bengal did not reorganise the units before the commencement of Fourth Plan period, according to the staff pattern recommended by the ICMR. First Assessment Committee Report.

In 1969, the Government of India evolved a revised staffing pattern *vide* Ministry of Health letter No. F. 6-1|69-C&CD, dated 8th October, 1969. The units that had not been reorganised as per 1961 staffing pattern were targetted for reorganisation as per 1969 staffing pattern during the IV Plan. Of the 44 such control units, 43 have already been reorganised. Only one unit in Assam (Gauhati) has yet to be reorganised. The State Government is repeatedly being impressed upon regarding the need to reorganise this unit."

1.107. Asked whether any further assessment of the working of Control Units had been made. In a written reply, the Ministry of Health stated: "Concurrent evaluation is being carried out regularly at the Programme Headquarters through review of monthly and annual technical reports and through visits to the Units. In view of the peculiar epidemiological features of the filariasis such as the long incubation period, long life of the adult worms, large number of infective bites required to produce infection etc.., it would be difficult to find the impact of effective control measures within a period of less than five years. However, concurrent evaluation of the performance of 65 control units during the subsequent years (1970, 1971 and 1972) following the criteria adopted by the Indian Council of Medical Research Assessment Committee (1971) showed that the performance of only six units is poor."

1.108. The Deputy Director, NFCP, stated: "We have reassessed their performance in 1971-72 and we found that out of 20 'poor' units existing, applying the same criteria which the Assessment Committee had adopted, six continued to be poor, 14 improved in their performance. This is because we had indicated to them how to get over the various problems." The witness added: "Two of the 'indifferent' units have become 'good'. Remaining 14 'poor' have become 'indifferent.

1.109. Referring to the assessment reports, the Secretary, Ministry of Health, stated: "Even about the report of the 2nd Assessment Committee, we have gone into it in great detail. The first Assessment Committee visited the Units and indicated them 'poor'. The second Assessment Committee based their report on the reports

drawn from the Director, Health Services and data furnished by the Units. As Director, National Institute of Communicable Diseases has pointed out, they went by three criteria, i.e., microfilariarates, ineffectively rate in vector and vector density. The assessment of poor was based upon the Unit's showing downward trend in all these three. But if you take the ultimate object of the Filaria Control Programme, the only thing that matters is the bringing down of the microfilaria rate in population. 35 Units had shown a decline out of the 48 Units. Some of the Units were not even asked to furnish data except the vector density and they were taken into account. There is, therefore, a certain amount of wrong classification in the original assessment."

1.110. The Committee drew attention to the observations of the Second Assessment Committee in regard to NICD that "it would have been preferable if lesser number of units had been established with the necessary complementary staff and the State Bureau organised according to the staffing pattern recommended so as to keep within limits of financial resources available and to ensure proper execution and supervision of the work in different units in the States. The Director, NICD stated: "There is little discrepancy. What is referred to here is the State set up and not at the NICD. Previous to the establishment of the filaria bureaus in the States, the work of National Filaria Control Programme was being looked into by the same officer who was also responsible for the malaria eradication programme. That has been taken care of by the establishment of 12 filaria bureaus."

1.111. The Committee drew attention to the observation of the Second Assessment Committee that the programme was carried out mechanically purely as a matter of routine without any critical approach, without any concurrent assessment and without making any variations to suit local conditions...." In a written reply and action taken in this regard, the Ministry of Health stated: "The National Filaria Control Programme Headquarters in Delhi regularly scrutinises the monthly technical reports received from the Units and comments are sent to the units under intimation to the State Health Directorates concerned. Assessment Bulletins (quarterly and annual) on the performance of the units are prepared by the NFCP Headquarters at Delhi based on the monthly and annual reports from the units and copies are distributed to all the units and the State Health Directorate. The objective of preparation and distribution of these bulletins is to highlight the gaps between the targets and achievement. Thus concurrent evaluation has been and is being undertaken. Consequent to the establishment of full-fledged State

Filaria Bureau, effective supervision of the control measures had become possible. The officers belonging to the Central Organisation (National Institute of Communicable Diseases) and its three branches continued to visit the problem units periodically to assist the States. In addition, periodic meetings of all the State Programme Officers were held during the year 1971, 1972 and 1973 to take stock of the achievement and to remove bottlenecks, both administrative and operational, in the implementation of the Programme. Moreover, coordination committees were formed at the unit level to involve other agencies such as Railways, Defence, Local bodies etc. for effective implementation of the programme.

The programme headquarters adopted critical approach in planning, guiding and evaluating the NFCP. The request for assessment of the programme in 1961 and 1971, changes in the strategy of the programme by discontinuing mass DEC administration and stopping of indoor spraying with Dieldrin and confining the control operations to only antilarval measures in urban areas clearly show the critical approach adopted in running of the Programme. As a safeguard against delayed receipt of M.L. oil, units were asked to receive 15 to 18 months' requirement of oil during a year.

Another safeguard against the breakdown in the supply of oil was diversion of available stocks of M.L. oil from Units which had sufficient oil to deficit units within the State. As a corrective step, high power meetings are held frequently to streamline the supply position. A Committee has also been formed by the Government of India to explore the possibilities of using other suitable larvicides, in addition to mosquito larvicidal oil under the programme."

1.112. The Director, NICD, stated during evidence: "The first thing is that the Assessment Committee—one man Assessment Committee—was not our Committee. It was an independent Committee; though appointed at our request because we wanted that the programme should be examined critically so that whatever come out of that we would like to implement it and the Statement which you have just read was as a matter of routine and all that we took it for was that this had been done to emphasise that we should try to be more critical. Probably we have been and if you see our reply—also we showed that to the Audit team, what action we have taken about the shortcomings which were there, they were satisfied that we had followed up and wherever necessary action was taken." The Secretary, Health Ministry stated: "The progress reports and the reports on the work done are being reviewed by the Director every month. The critical observations are sent. Our officers visit on

inspection and the inspection reports are followed up subsequently. We have got samples of the inspection reports and the observations made. This is the only way. The work, of course, that is entrusted to them is somewhat of a mechanical nature."

1.113. Asked about the steps taken to prevent spreading of the disease in other areas where it did not exist, the Director, NICD, stated: The Central Survey Team which we are having is meant to find out the places where the probability of occurrence of the disease is there. There is a big list which we have already given and we have found the microfilaria carrier in those places which are non-endemic for filariasis because of the movement of population. So far it was confined to endemic States. But we have found the possibility of occurrence of transmission in indigenous population also. It has not yet happened and we are bringing those States in the picture so that this danger is taken care of."

1.114. The Committee pointed out that the World Health Organisation in their Report No. 359 (1967) recommended the use of diethylcarbamazine (Chemotherapeutics) for treatment of individual. The Committee desired to know the action taken in this regard. The Director, NICD, stated: "We have started studies from 1970 in our Filaria Training and Research Centres in Calicut, Rajamundry and Varanasi." The Deputy Director, NFCP stated: "In two villages during 1967-69—one in U.P. (Parbatpur) and the other in Andhra Pradesh (Nalaturi) common salt was given with 0.1 per cent diethylcarbamazine, the result was that microfilarial clearance was to the tune of 85 per cent to 95 per cent and the acceptability was very good. But the difficulty we observed was, administratively in a large scale it would be difficult to restrict the other sources of salt—other than what we supplied." The Director, NICD stated: "This is the experience in other countries. That is why we thought the more practical and better method would be to trace the microfilaria carriers and treat them instead of subjecting the whole population to the use of fortified salt."

1.115. In a written reply, the Ministry of Health stated: "This method of mass administration of DEC has certain limitations. . . . Hence considering the points and inadequate knowledge regarding toxic effect on prolonged administration of DEC, the use of DEC. the use of DEC fortified salt for mass treatment is at present considered unsuitable." It has been further stated: "During the Fifth Five Year Plan, it is proposed to augment anti-larvel operations in urban areas with anti-parasite measures by detection and treatment

of filaria positive cases through the establishment of Filaria Night Clinics in urban areas. In semi-urban and rural areas the control measures as recommended by the ICMR Assessment Committee (1971) would be selective treatment therapy *i.e.*, detection and treatment of microfilaria carriers. As per the instruction of the Steering Group of Health, the activities of the programme will be confined mainly to urban areas."

1.116. The Committee desired to know the original total Fourth Plan allocation for the National Filaria Control Programme and budget estimates, Revised Estimates and Actual Expenditure. The Ministry furnished the following information:

"Originally, a plan allocated of Rs. 550.00 lakhs was sanctioned for the National Filaria Control Programme during the Fourth Five Year Plan. However, due to shortfalls in the first two years of the Fourth Plan leading to under-utilisation of funds, the plan allocation for NFCP was revised to Rs. 487.84 lakhs. The figures of budget estimates, revised estimates and the actual expenditure for each of the years 1969-70 to 1973-74 in respect of the operational cost and supply of material and equipment to States are given below:

Year	Budget Estimates			Revised Estimates			Actuals		
	O.C.	MEC	Total	O.C.	MEC	Total	O.C.	M&E	Total
1969-70	17·12	22·50	39·62	17·12	22·50	39·62	Nil	17·92	17·92
1970-71	26·81	27·67	54·48	17·26	18·27	35·53	0·26	20·18	20·44
1971-72	27·00	28·00	55·00	15·00	20·00	35·00	15·00	19·67	34·67
1972-73	44·23	40·00	84·23	38·07	40·00	78·07	37·00	24·24	61·24
1973-74	†57·37 *40·00	†54·57 *40·00	†111·94 *80·00	—	—	—	46·00 (Anticipated	30·00 expenditure)	76·00

†Original Budget provision.
*Reduced due to reduced Plan allocation/Outlay.

Reasons for shortfall

(a) Observation of the Planning Commission that replacement of old equipment formed the responsibility of the Governments.

(b) Inability of M/s. Indian Oil Corporation Ltd. to supply in full the requirements of M.L. oil.

(c) Belated implementation of the targets by the States.

(d) Non-implementation of 1969 staffing pattern."

1.117. The Committee desired to know the break-up expenditure on the various measures like adequate disposal of sewage, prevention of filarial conditions and anti-larvel measures. The Deputy Director, NFCP stated: "Regarding adequate provision of underground drainage, we did not take it as one of the targets. Although that would, in the long run, solve the problem of Filaria, it has not been included in the National Filaria Control Programme. We wanted the National Sanitation and Drainage Programme to be taken up in important towns and we have given a list of 50 towns which should be taken up on priority basis for laying underground drainage within the resources available.

The second is prevention of filaria conditions. We have established 40 Coordination Committees within the towns where the control units are operating and these Coordination Committee members come from various walks of life—political, defence, railways and various other persons who are involved in improvement of environmental sanitation. This again has not actually involved any spending of money.

Whatever money has been spent, has been spent on the recurrent anti-larvel measures which have been our main strategy from 1963. After the First Assessment Committee evaluated this programme and gave its recommendations we have given up mass treatment to population. During the Fifth Five Year Plan period we propose to establish 480 clinics."

1.118. Referring to the disposal sewage, the Health Secretary stated: "Until recently, the subject of water and sanitation was also with our Ministry, but this has now been transferred to the Ministry of Works and Housing. But even now, we are keeping a close liaison. The policy proposed to be adopted in the Fifth Five Year Plan is that only with regard to the Municipal Towns the Integrated Water Supply and Drainage Scheme is considered and for rural population the Rural Water Supply Schemes and Pipe Water Supply Schemes are being sanctioned. There also some provision will have to be made to see that we do not create drainage problems."

1.119. Asked whether there was any Central Organisation to look after drainage schemes, the Health Secretary stated: "The Public Health Engineering Organisation actually looks into and scrutinises the designs for water supply as well as drainage and they recommend schemes for acceptance and approval."

1.120. According to the Performance Budget for the year 1971-72, 50 highly endemic cities and towns have been earmarked for underground drainage under the National Sanitation and Drainage Programme. In a written reply, the Ministry of Health have stated that the Ministry of Works and Housing have informed that there are 49 towns highly endemic to filariasis where sewerage facilities have been undertaken and not 50 towns.

1.121. Referring to the future programme, the Deputy Director, NFCP stated: "During the Fourth Plan, we envisage to establish 32 survey units to delimit the problem in the 115 unsurveyed districts in the endemic States. We are also proposing to cover 15 million population by the end of this year, if Bihar established the 16 units. During the Fifth Plan, we want to establish 65 more control units in the urban endemic problem areas, so that we cover a population of 6.5 million more in addition to the 15 million we would already be covering. The third thing is that we want to augment the existing anti-larvel measures with anti-parasitic measures. We want to detect and treat microfilaria carriers and prevent its spread by establishing 480 Filaria Clinics. The population that we are going to cover—21.5 million—would be out of the 51 million population exposed to the risk of Filaria in the urban areas only. We are also envisaging to have subject to the clearance by the Planning Commission—detection units in some areas for detection and treatment of microfilaria carriers and thereby we can also include rural areas in this programme."

1.122. The Committee drew attention to the following observation of the Second Assessment Committee. "The finding of some concern, however, is the extent of filafiasis in rural areas. The first Assessment Committee had estimated that out of 64 million people then considered as living in filarial zones, 24 million were from urban centres and 40 million from rural areas. However, it was believed that spread of filariasis was centrifugal from urban to rural areas. Accordingly, in the control programme hitherto adopted, the emphasis was on the control of urban filariasis, not only because the problem was of importance in itself, but also to prevent the spread of infection from urban to rural areas. The recent evidence, however, tends to show that the problem of rural filariasis is of much great magnitude than thought previously." The Committee desired to know the action taken in this regard. The Health Secretary stated: "The programme of operations has been confined to urban areas. Our anxiety is that is should be extended to rural areas."

1.123. The Committee enquired about the extent to what the State Governments had implemented the programme, the Secretary,

Health Ministry stated: "The problem of staff is not of such a magnitude as in the case of smallpox. But, even with regard to the limited strength of staff that is involved in this filaria control operation, the State Governments are unwilling to enter into any commitment, because of the fear that they will be saddled with a committed expenditure. There is a strong justification for this. Even earlier, in 1962, when we persuaded them to accept this programme we had to tell them that because of the National Emergency which arose then (then in 1965 also), the Centre will not be able to finance except to a very small extent. Now, as an illustration, I will point out to you some of the recent developments that have taken place. According to the recent thinking in the Planning Commission, they are not willing to bear responsibility for the operational costs of the Filaria, T.B. and Leprosy programmes. Now, this is a recent development. This was expected and this has become more or less a reality now. The operational costs will become the responsibility of the State Governments and they are not willing to bear this responsibility, because they give the health programmes a very low priority while they allocate the funds available with them for various developmental programme."

1.124. Asked if the matter was being pursued with the Planning Commission, the witness stated: "We have taken up." The Health Secretary suggested: "The operation cost should be provided by the Centre."

1.125. The Committee are very dissatisfied with the slow progress in the implementation of the National Filaria Control Programme launched in 1955-56. There were two main objectives of the programme. The first was to carry out filariasis surveys in different States where the problem was known to exist to determine the extent of prevalent types of infections and their vectors. The other was to control the disease by recurrent anti-larvel measures by using mosquito larvicidal oil. The programme is being carried out in 12 endemic States through survey units and control units. The Headquarter unit of the Programme in the National Institute of Communicable Diseases supervises and guides the programme. The expenditure incurred by the Central Government including assistance to the States amounted to Rs. 5.94 crores upto 1970-71. Two Assessment Committees set up by I.C.M.R. evaluated the programme in 1961 and 1970. The Committee regret to observe that even after 18 long years, the surveys have not been completed. This serious lapse—particularly serious since the price has to be paid in terms of human sufferings—calls for drastic action against those officials who were responsible. The Committee would await a report in this regard.

1.126. The following facts bring out the delays, lack of attention and deficiencies in the implementation of the programme:—

(i) In 1955-56, 22 survey units were allotted to 9 States then participating in the programme but actually only 19 were established. Although the survey was not completed even at the end of two years as expected, the survey units were abolished in Bihar, Tamil Nadu and Orissa while in Maharashtra the survey unit was converted into a control unit. The survey units in Andhra Pradesh, Kerala, Madhya Pradesh and Uttar Pradesh continued to function. In States where the State Survey Units are not functioning, surveys are conducted by the National Institute of Communicable Diseases, the three Central filariasis training centres and the Central Survey Team.

(ii) The progress of the survey has been quite uneven. In Kerala, the survey was completed in all the districts by 1960, in Tamil Nadu in 12 out of 13 districts by 1958 and in West Bengal in 13 out of 16 districts by 1960. On the other hand, only 3 out of 19 districts in Mysore and only 6 out of 26 districts in Maharashtra have been surveyed so far.

(iii) Out of 260 districts in the 12 known endemic States, the survey was completed only in 145 districts upto 31st March, 1970. In addition, limited surveys were carried out in four Union Territories. Surveys have been discontinued since 1970.

(iv) These surveys show that 136 million people—51 million in urban areas and 85 million in rural areas—were living in endemic areas. In view of the fact that in known endemic areas, many districts are yet to be surveyed, the figure of 136 million is an under-estimate.

(v) 47 control units were allotted to different States in 1958-59 to control the disease by controlling the vectors only in selected urban areas through the use of larvicidal oil. Number of control units was increased to 73 in 1968 but with the abolition of 6 units in Kerala it was reduced to 67 in 1970. After an analysis of the data collected by these control units, the Second Assessment Committee (1970) came to the conclusion that judged by the downward trend in vector density, infection and infectivity rates in mosquitos and microfilaria rates in children in the age group of 5 to 15 years, the results were fairly good in 22 units which covered population of two millions. Results were

indifferent in 23 units where the indices showed wide and erratic fluctuations while the results were poor in 20 units where there were upward trends in mosquito densities and other indices. Relevant data were not available for drawing any conclusions about the remaining two units.

(vi) The performance of the different States in control measures has been uneven. In Tamil Nadu all the four units, in West Bengal the only existing unit and in Madhya Pradesh 2 out of 3 units were considered good. On the other hand, 4 out of 5 units in Maharashtra, 4 out of 5 units in Orissa and 10 out of 14 units in Kerala were poor.

(vii) The reasons for indifferent and poor results in the 43 control units were stated to be due to breakdown in larvicidal oil supply and inadequacy of staff and supervision—

(a) Since 1965, Indian Oil Corporation has been the only supplier of larvicidal oil. During the years 1967-68, 1968-69, 1969-70 and 1970-71 the percentage of short supply compared to quantity due for supply was 20 per cent, 35 per cent, 13 per cent and 21 per cent respectively. No priority was allotted in the past by the I.O.C. to this requirement.

(b) Out of the 67 control units existing in 1970, there were shortages of more than 20 per cent of field workers in 29 units (on the basis of staffing pattern recommended by the First Assessment Committee). Out of 20 units which were considered poor, 15 were short of field workers by 33 to 84 per cent. Except Kerala, Madhya Pradesh and Mysore, the other States did not reorganise the control units on the lines recommended by the First Assessment Committee.

(viii) In Gujarat Maharashtra and Tamil Nadu the control units were engaged not only in urban but in rural areas also, although the policy was to control vectors only in selected urban areas. This resulted in thinning out of resources as the staffing pattern was not designed for that purpose.

(ix) In Kerala, anti-larval measures have been carried out in one half of the urban area by the State units and in the other half by the local bodies. Poor results have been attributed to poor performance of the local body's field staff.

(x) The First Assessment Committee had recommended in 1969 that a full-time Officer of the rank of Assistant Director of Public Health should be in charge of the Filaria Bureau to be established in each endemic State. Except in Andhra Pradesh, Kerala, Mysore, Madhya Pradesh and Goa, there was no headquarters unit in any other State till March, 1971.

1.127. The Committee have been informed that the following measures have been taken or proposed to be taken to strengthen the survey and control work and supervision:—

(i) It is proposed to establish 32 units to undertake delimination of filariasis in the remaining 115 districts during the Fifth Plan period.

(ii) During the Fifth Plan, it is proposed to establish 65 more control units in the urban endemic problem areas so as to cover a population of 6.5 million more in addition to the 15 million already being covered.

(iii) Steps have been taken by the Indian Oil Corporation to ensure liquidation of all pending orders for M.L.O. The I.O.C. hope to maintain this position during 1973-74 and trust that there would be no occasion for the National Institute of Communicable Diseases to lay the blame for any failure in the implementation of its programme on inadequate availability of M.L.O. Position of supply is now (from 1971) periodically reviewed by a Committee consisting of the representatives of the Ministry of Health and Petroleum and Chemicals and DGS&D to smoothen difficulties.

(iv) The Department has set up separate filaria bureau in all the 12 States where there was need for a separate bureau under the charge of an Assistant Director. These bureaus look after the interest of the Filaria Programme. Besides, the Central Survey Team undertake periodic visits to different States.

(v) A Committee has been formed by the Government of India to explore the possibilities of using other suitable larvicidies in addition to mosquito larvicidal oil under the programme.

(vi) Staffing pattern which was recommended by the Government of India in 1969 in respect of each unit has been

more or less adopted by all the States and there is no shortage of staff in respect of posts which have been sanctioned.

vii) Concurrent evaluation of the programme is regularly carried out at the Programme Headquarters through review of monthly and annual technical reports and through visits to the Units. The concurrent evaluation of the performance of 65 control units during the years 1970, 1971 and 1972 following the criteria adopted by the Indian council of Medical Research Assessment Committee (1971) showed that out of 20 poor units the performance of only six units is poor and the remaining 14 poor units were found to have become indifferent.

(viii) Periodic meetings of the State Programme Officers are held to take stock of achievement and to remove bottlenecks in the implementation of the Programme.

1.128. The Committee would like to stress that the Ministry of Health should ensure that the remaining task of survey of 115 districts is completed expeditiously. For this purpose a time bound programme should be prepared.

1.129. The Committee strongly feel that a close watch is necessary on the effectiveness of the control measures in order to take timely steps to strengthen the control units quantitatively and qualitatively and remove difficulties in the supply of oil and ensure that the past failures are not repeated. It should be examined whether the present supervisory machinery in the Headquarters unit in the National Institute of Communicable Diseases and 12 Filaria Bureaus in the States is adequate for the task.

1.130. The Committee feel concerned to note that to the extent the surveys have been completed, 136 million people live in the endemic areas of filariasis in the country—51 million in urban areas and 85 million in rural areas. Over 12 million people harbour microfilariase in their blood and 8 million have signs and symptoms of the disease. The correct picture will however emerge on completion of surveys.

1.131. The present control measures are mainly confined to the urban areas although the Second Assessment Committee (1971) opined that the problem of rural filariasis is of much greater magni-

tude than thought of previously. The Committee are not happy with the lopsided approach of Government to the problem. The Committee strongly suggest that the problem of rural filariasis should receive serious attention and it should be examined to what extent the programme for the Fifth Plan could be reoriented so as to make a serious beginning in the Rural areas.

1.132. The Committee also desire that serious attention should be paid to the reports that the disease is spreading to areas where it did not exist.

1.133. The Committee's attention has been drawn to the fact that pursuant to the first Assessment Committee Report, the mass treatment of population was given up. During the Fifth Plan it is proposed to establish 480 Filaria Clinics in urban areas to treat filara positive cases. Considering the fact that over 12 million people harbour microfilariasis in their blood and 8 million have signs and symptoms of the disease, the Committee cannot but regret lack of proper attention in the past to this aspect. The Committee desire that adequate number of clinics should be established in the Fifth Plan.

1.134. The First Review Committee recommended that adequate disposal of sewerage and sullage should be ensured to control the spread of the disease. The Ministry of Works and Housing have informed that there are 49 highly endemic towns where sewerage facilities have been undertaken. The Committee desire that a phased programme should be prepared for providing facilities for disposal of sewerage in more towns. The Committee would like to be informed about the progress made in the 49 towns where these facilities have already been undertaken.

1.135. The Committee note that there is likely to be difficulty in the financing of the programme. There is a thinking in the Planning Commission that the Centre should not bear the cost of the Filaria Programme. But the State Governments are not willing to bear this responsibility because they give the health programmes a very low priority while they allocate funds available with them for various developmental programmes. Considering the magnitude of the Filaria Problem and the past failures, the Committee suggest that the matter should be carefully considered with a view to ensure not only that the implementation of the programme does not suffer but also to make possible the taking up of an adequate programme in the rural areas. The Committee are of the view that the Central Government ought to take full responsibility in the matter.

1.136. The programme launched in 1955-56 was evaluated by the First Assessment Committee of Indian Council of Medical Research in 1961 and by the Second Assessment Committee in 1970, after nine years. The Committee suggest that in future the programme should be evaluated well before the conclusion of the Plan period so as to throw up meaningful data to reorient the plan for the next five years. In this view, the Committee recommend that the third assessment Committee should be appointed at an early date so that it can complete its evalgation in 1976.

NEW DELHI;
April 10, 1974.
Chaitra 20, 1896 (*S*).

JYOTIRMOY BOSU.
Chairman,
Public Accounts Committee.

APPENDIX

Summary of main conclusions/recommendations

S. No.	Para No.	Ministry/Dep't.Concerned	Conclusions/Recommendations
1	2	3	4
1	1.63	Health	The Committee are thoroughly disappointed at the failure in the efficient implementation of the National Smallpox Eradication Programme which is so very important for the Nation's health. This programme which was launched in January, 1962 and reorganised in 1969, is being implemented through Governments of the State and Union Territory with Central assistance. Upto 31st March, 1972, the Central Government paid Rs. 18.83 crores to the States for the implementation of the programme. Apart from this 1010 million doses of freeze-dried vaccine (approximate value Rs. 7.26 crores) received as gift from other countries and 281 million doses of freeze-dried vaccine (approximate value Rs. 1.97 crores) produced in the country were distributed to the States free of cost upto 31st March, 1972. It is a matter of great concern for the Committee that in spite of so much expenditure, India continues to be one of the endemic countries. According to the Annual Report of the Director General, W.H.O. of May, 1973, the areas in which this disease was thought to

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			be endemic during the latter part of the year were confined to Bnagla Desh, Botswana Ethiopia, India, Pakistan and Sudan. Over 70 per cent of all cases were reported by Ethiopia and India. According to the figures made available to the Committee, in the recent years the attacks of the disease were 83,943 in 1967, 30,295 in 1968, 19,139 in 1969, 12341 in 1970, 16,166 in 1971, 27,407 in 1972 and 49,042 in 1973 (upto June).
2	1.64	Health	The following factors which may explain the shortcomings of the programme came to the notice of the Committee: (i) There is serious shortfall in the achievement of primary vaccinations. It is estimated that there was a backlog of 6.7 crores of people to be given primary vaccination upto 31st March, 1969. (ii) Although vaccination units were reorganised in 1969 and instructions were issued that all efforts should be made to carry out 100 per cent successful primary vaccination in vulnerable are group 0—14 years and eliminate the existing backlog in primary vaccination, the number of primary vaccinations given were only slightly more than the estimated births with the result that the backlog was not cleared. The backlog has so far been brought down from 6.7 crores to 3.7 crores. (iii) During the years 1969-70, 1970-71 and 1971-72 the achievement in primary vaccination was 226 lakhs, 227 lakhs and

229 lakhs as against the targets of 537 lakhs, 446 lakhs and 338 lakhs respectively. During the year 1972, the number of vaccinations given is stated to be 252 lakhs (the target for 1972-73 was 334 lakhs).

(iv) In case of revaccinations, the achievement during the years 1969-70, 1970-71 and 1971-72 was 523 lakhs, 563 lakhs and 674 lakhs as against the targets of 1074, 1101 and 1129 lakhs respectively.

(v) The main reason for non-clearance of the backlog was stated to be shortages of vaccinators and the staff by the State Governments. According to the norms laid down by the Government, 8465 additional vaccinators were to be appointed over the strength of 13,696 vaccinators as on 31st March, 1969. 7348 vaccinators have been appointed/ sanctioned during the Fourth Plan period. As regards the other staff against the additional requirement of 392 para-medical assistance, 339 have been appointed/sanctioned. And against the additional requirement of 3696 supervisors, 2659 have been appointed/sanctioned. The shortage in staff continued inspite of decision of Central Government to meet cent per cent cost of the additional staff. The factors that contributed to this situation should be immediately gone into for appropriate action.

(vi) The Primary Health Centres which apart from other duties are interested with supervision of the programme are also under-staffed. As on 30-6-1972, 2951 centres had

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			the sanctioned strength of two doctors each, 2101 centres had only one doctor and 140 had no doctor.
			(vii) The performance of the vaccinators in some States has not been uniform. Even during the year 1972, there was wide disparity between the figures of vaccinations per vaccinator per day. The average was 5.3 in Manipur, 5.4 in Meghalaya and 6.4 in Arunachal Pradesh and 12.2 in Gujarat. It was 48.1 in Mysore, 35.1 in Punjab, 33.7 in Chandigarh, 33.3 in Delhi and 32.4 in Uttar Pradesh. The average cost of vaccination is as low as Rs. 0.05 in Bihar and as high as Rs. 1.25 in Manipur. The reasons for very high cost in some States like Meghalaya and Manipur is due to poor vaccination performance per worker due to terrain and scattered population.
			(viii) According to the World Health Organisation Expert Committee Report (1972) surveillance activities in India were being improved substantially, but were not yet satisfactory in all States; and progress of eradication programme would depend mainly on how rapidly surveillance and the still unsatisfactory reporting system can be improved.
			(ix) There are not uniform rules in States regarding vaccination. In some States vaccination and revaccination is compulsory, in other States primary and revaccination is

			compulsory, when epidemic Disease Act is enforced and the outbreak is anticipated. Proper publicity for gaining public acceptance of the vaccination is also needed in consultation with the Information and Broadcasting Ministry.
3	1.65	-do-	While the Committee appreciate that the above difficulties in the successful implementation of the Smallpox Eradication were due to insufficient attention being paid to the programme by the State Government in spite of the view that the Central assistance, the Committee are strongly of the view that tha Central Government who pay grants and guide the programme cannot absolve themselves of the responsibility for the failure of the programme. According to a joint team of the WHO and Government of India (1967), the Central Directorate looking after the programme was inadequately staffed and had no effective mechanism for providing effective guidance and direction of the programme at state and local level. It has been stated that with certain additions of technical personnel and mobilisation of other national staff during the campaign period the Central Directorate is now planning, coordinating and monitoring the programme in an effective way.
4	1.66	-do-	The Committee have been assured that during the Fifth Plan period the backlog of vaccinations will be made up. The Committee feel that the factors that led to the past failure need to be thoroughly examined with a view to at least deriveing lessons for the future. The Committee would like to be informed about the programme made in clearing the backlog.

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5	1.67	Health	In fact, as early as 1964, WHO Expert Committee emphasised the crucial importance of independent concurrent evaluation of the results for timely identification of deficiencies of the programme. But excepting a quick review by the joint team of WHO and Government of India in 1967 in four States and a few other assessments done by WHO Experts lasting 10 to 15 days, no independent compressive assessment has been undertaken. This shows utter neglect and disregard on the part of Central Health authorities which the Committee deprecate. The Committee are strongly of the view that in view of the very unsatisfactory progress of the programme and its poor impact on eradication of the disease from India, it is necesary that an independent and comprehensive assessment of the programme should be undertaken immediately in order to identify the deficiencies of the programme in the past and take necessary corrective measures without any delay. In the meantime the Committee stress that eradication measures should be intensified with active cooperation of the State Governments. The Central Directorate dealing with the Programme in the Ministry of Health and Family Planning should be adequately strengthened to meet the challenging problem.
6	1.68	-do-	The Committee are indeed alarmed over the reports that there is a serious danger of outbreak of the disease in Uttar Pradesh, Bihar, Madhya Pradesh and West Bengal. The Committee have

			been informed that an intensive campaign was proposed to be undertaken during the months of September to December, 1973 in these States with a view to detecting and reducing substantially the smallpox endemic foci during the low incidence season to the extent that the programme will have a manageable number of remaining foci to deal with during 1974. The Committee are anxious that constant watch should be kept over the endemic states. The Committee would like to be informed about the results.
7	1.69	do	The Committee note that upto 1967, 4 institutes controlled by the State Governments had the capacity to manufacture 60 million doses of freeze-dried smallpox vaccine. In addition, Government received gift vaccine from friendly countries. In 1972-73, the capacity was increased to 90 million doses. The present requirement of freeze-dried smallpox vaccine is 156 million doses. It is expected to increase the capacity further in order to achieve the production of 156 million doses during 1973-74. The Committee were assured that during the Fifth Plan period there will be no necessity for import of the vaccine. The Committee hope that the requirement of 156 million doses will be met by the factories fully. The Committee suggest that it should be examined how in case of further increase in the requirement, the production could be augmented.
8	1.70	do	At present the unit cost of production of vaccine varies from Institute to Institute. These were Rs. 1.20, Rs. 1.05, Rs. 2.25 and Rs 2.25 at state Vaccine Institute Patwadanagar, Institute of Preventive Medicine, Hyderabad. King Institute, Guindy and Vaccine Institute, Belgaum respectively. Pending finalisation of cost fixation of each factory,

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			Government have fixed the rate at Rs. 1.05 per ampule of vaccine. The Committee hope that cost Accounts Branch of the Ministry of Finance will also go into the reasons for the wide variations in the cost of production so that steps may be taken to control the cost especially at King Institute, Guindy and Vaccine Institute, Belgaum.
9	1.125	Health	The Committee are very dissatisfied with the slow progress in the implementation of the National Filaria Control Programme launched in 1955-56. There were two main objectives of the programme. The first was to carry out filariasis surveys in different States where the problem was known to exist to determine the extent of prevalent types of infections and their vectors. The other was to control the disease by recurrent anti-larval measures by using mosquito larvicidal oil. The programme is being carried out in 12 endemic States through survey units and control units. The Headquarter unit of the Programme in the National Institute of Communicable Diseases supervises and guides the programme. The expenditure incurred by the Central Government including assistance to the States amounted to Rs. 5.94 crores upto 1970-71. Two Assessment Committees set up by I.C.M.R. evaluated the programme in 1961 and 1970. The Committee regret to observe that even after 18 long years, the surveys have not been completed. This serious lapse—particularly serious since the price has to be paid in terms of human sufferings—calls for drastic action against those officials who were
10	1.126	Do	The Committee would await a report in this regard.

The following facts bring out the delays, lack of attention and deficiencies in the implementation of the programme:—

(i) In 1955-56, 22 survey units were allotted to 9 States then participating in the programme but actually only 19 were established. Although the survey was not completed even at the end of two years as expected, the survey units were abolished in Bihar, Tamil Nadu and Orissa while in Maharashtra the survey unit was converted into a control unit. The survey units in Andhra Pradesh, Kerala, Madhya Pradesh and Uttar Pradesh continued to function. In States where the State Survey Units are not functioning, surveys are conducted by the National Institute of Communicable Diseases, the three Central filariasis training centres and the Central Survey Team.

(ii) The progress of the survey has been quite uneven. In Kerala, the survey was completed in all the districts by 1960, in Tamil Nadu in 12 out of 13 districts by 1958 and in West Bengal in 13 out of 16 districts by 1960. On the other hand, only 3 out of 19 districts in Mysore and only 6 out of 26 districts in Maharashtra have been surveyed so far.

(iii) Out of 260 districts in the 12 known endemic States, the survey was completed only in 145 districts upto 31st March, 1970. In addition, limited surveys were carried

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out in four Union Territories. Surveys have been discontinued since 1970.

(iv) These surveys show that 136 million people—51 million in urban areas and 85 million in rural areas—were living in endemic areas. In view of the fact that in known endemic areas, many districts are yet to be surveyed, the figure of 136 million is an under-estimate.

(v) 47 control units were allotted to different States in 1958-59 to control the disease by controlling the vectors only in selected urban areas through the use of larvicidal oil. Number of control units was increased to 73 in 1968 but with the abolition of 6 units in Kerala it was reduced to 67 in 1970. After an analysis of the data collected by these control units, the Second Assessment Committee (1970) came to the conclusion that judged by the downward trend in vector density, infection and infectivity rates in mosquitoes and microfilaria rates in children in the age group of 5 to 15 years, the results were fairly good in 22 units which covered population of two millions. Results were indifferent in 23 units where the indices showed wide and erratic fluctuations while the results were poor in 20 units where there were upward trends in mosquito

densities and other indices. Relevant data were not available for drawing any conclusions about the remaining two units.

(vi) The performance of the different States in control measures had been uneven. In Tamil Nadu all the four units, in West Bengal the only existing unit and in Madhya Pradesh 2 out of 3 units were considered good. On the other hand, 4 out of 5 units in Maharashtra, 4 out of 5 units in Orissa and 10 out of 14 units in Kerala were poor.

(vii) The reasons for indifferent and poor results in the 43 control units were stated to be due to breakdown in larvicidal oil supply and inadequacy of staff and supervision—

(a) Since 1965, Indian Oil Corporation has been the only supplier of larvicidal oil. During the years 1967-68, 1968-69, 1969-70 and 1970-71 the percentage of short supply compared to quantity due for supply was 20 per cent, 35 per cent, 13 per cent and 21 per cent respectively. No priority was allotted in the past by the I.O.C. to this requirement.

(b) Out of the 67 control units existing in 1970, there were shortage of more than 20 per cent of field workers in 29 units (on the basis of staffing pattern recommended by the First Assessment Committee). Out of 20 units

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			which were considered poor, 15 were short of field workers by 33 to 84 per cent. Except Kerala, Madhya Pradesh and Mysore, the other States did not reorganise the control units on the lines recommended by the First Assessment Committee.
			(viii) In Gujarat, Maharashtra and Tamil Nadu the control units were engaged not only in urban but in rural areas also, although the policy was to control vectors only in selected urban areas. This resulted in thinning out of resources as the staffing pattern was not designed for that purpose.
			(ix) In Kerala, anti-larval measures have been carried out in one half of the urban area by the State units and in the other half by the local bodies. Poor results have been attributed to poor performance of the local body's field staff.
			(x) The First Assessment Committee had recommended in 1960 that a full-time Officer of the rank of Assistant Director of Public Health should be in charge of the Filaria Bureau to be established in each endemic State. Except in Andhra Pradesh, Kerala, Mysore, Madhya Pradesh and Goa there was no headquarters unit in any other State till March, 1971.

292 LS—9	II	1.127	Health	The Committee have been informed that the following measures have been taken or proposed to be taken to strengthen the survey and control work and supervision:— (i) It is proposed to establish 32 units to undertake delimination of filariasis in the remaining 115 districts during the Fifth Plan period. (ii) During the Fifth Plan, it is proposed to establish 65 more control units in the urban endemic problem areas so as to cover a population of 6.5 million more in addition to the 15 million already being covered. (iii) Steps have been taken by the Indian Oil Corporation to ensure liquidation of all pending orders for M.L.O. The I.O.C. hope to maintain this position during 1973-74 and trust that there would be no occasion for the National Institute of Communicable Diseases to lay the blame for any failure in the implementation of its programme on inadequate availability of M.L.O. Position of supply is now (from 1971) periodically reviewed by a Committee consisting of the representatives of the Ministry of Health and Petroleum and Chemicals and DGS & D to smoothen difficulties. (iv) The Department has set up separate filaria bureau in all the 12 States where there was need for a separate bureau under the charge of an Assistant Director. These bureaus

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			look after the interest of the Filaria Programme. Besides, the Central Survey Team undertake perodic visits to different States.
			(v) A Committee has been formed by the Government of India to explore the possibilities of using other suitable larvicidies in addition to mosquito larvicidal oil under the programme.
			(vi) Staffing pattern which was recommended by the Government of India in 1969 in respect of each unit has been more or less adopted by all the States and there is no shortage of staff in respect of posts which have been sanctioned.
			(vii) Concurrent evaluation of the programme is regularly carried out at the Programme Headquarters through review of monthly and annual technical reports and through visits to the Units. The concurrent evaluation of the performance of 65 control units during the years 1970, 1971 and 1972 following the criteria adopted by the Indian Council of Medical Research Assessment Committee (1971) showed that out of 20 poor units the performance of only six units is poor and the remaining 14 poor units were found to have become indifferent.

			(viii) Periodic meetings of the State Programme Officers are held to take stock of achievement and to remove bottlenecks in the implementation of the Programme.
12	1.128	Health	The Committee would like to stress that the Ministry of Health should ensure that the remaining task of survey of 115 districts is completed expeditiously. For this purpose a time bound programme should be prepared.
13	1.129	do.	The Committee strongly feel that a close watch is necessary on the effectiveness of the control measures in order to take timely steps to strengthen the control units quantitatively and qualitatively and remove difficulties in the supply of oil and ensure that the past failures are not repeated. It should be examined whether the present supervisory machinery in the Headquarters unit in the national Institute of Communicable Disease and 12 Filaria Bureau in the States in adequate for the task.
14	1.130	do.	The Committee feel concerned to note that to the extent the surveys have been completed, 136 million people live in the endemic areas of filariasis in the country—51 million in urban areas and 85 million in rural areas. Over 12 million people harbour microfilariase in their blood and 8 million have signs and symptoms of the disease. The correct picture will however emerge on completion of surveys.
15	1.131	do.	The present control measures are mainly confined to the urban areas although the Second Assessment Committee (1971) opined.

(1)	(2)		(3)	(4)
				that the problem of rural filariasis is of much greater magnitude than thought of previously. The Committee are not happy with the lop-sided approach of Government to the problem. The Committee strongly suggest that the problem of rural filariasis should receive serious attention and it should be examined to what extent the programme for the Fifth Plan could be reoriented so as to make a serious beginning in the Rural areas.
16	1.132	Health		The Committee also desire that serious attention should be paid to the reports that the disease is spreading to areas where it did not exist.
17	1.133	do.		The Committee's attention has been drawn to the fact that pursuant to the first Assessment Committee Report, the mass treatment of populatoin was given up. During the Fifth Plan it is proposed to establish 480 Filaria clinics in urban areas to treat filaria positive cases. Considering the fact that over 12 million people harbour microflariasis in their blood and 8 million have signs and symptoms of the disease, the Committee cannot but regret lack of proper attention in the past to this aspect. The Committee desire that adequate number of clinics should be established in the Fifth Plan.
18	1.134	Health Works and Housing		The First Review Committee recommended that adequate disposal of sewerage and sullage should be ensured to control the spread of the disease. The Ministry of Works and Housing have

			informed that there are 49 highly endemic towns where sewerage facilities have been undertaken. The Committee desire that a phased programme should be prepared for providing facilities for disposal of sewerage in more towns. The Committee would like to be informed about the progress made in the 49 towns where these facilities have already been undertaken.
19	1.135	Health	The Committee note that there is likely to be difficulty in the financing of the programme. There is a thinking in the Planning Commission that the Centre should not bear the cost of the Filaria Programme. But the State Governments are not willing to bear this responsibility because they give the health programmes a very low priority while they allocate funds available with them for various developmental programmes. Considering the magnitude of the Filaria Problem and the past failures, the Committee suggest that the matter should be carefully considered with a view to ensure not only that the implementation of the programme does not suffer but also to make possible the taking up of an adequate programme in the rural areas. The Committee are of the view that the Central Government ought to take full responsibility in the matter.
20	1.136	do.	The programme launched in 1955-56 was evaluated by the First Assessment Committee of Indian Council of Medical Research in 1961 and by the Second Assessment Committee in 1970, after nine years. The Committee suggest that in future the programme should be evaluated well before the conclusion of the Plan period so as to

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MGIPND—LS II—292 LS—18-5-74—1200.