committee was to meet quarterly in order to take stock of the pollution problems and control measures, it did not meet even once, as of April 2001.

(ii) Evaluation

Though the PCB has been functioning for 26 years, its performance has not been evaluated either by the State Government or by the PCB so as to gauge the impact of pollution control measures undertaken by the PCB on the status of environment. The proposal of the PCB to entrust the evaluation work to the Institute of Management in Government submitted to the State Government in February 2001was pending clearance as of May 2001.

3.1.15 Conclusion

The review brought out inadequacy in identification of polluting industries and other units. Monitoring and preventing air pollution by smoke emissions from factories, motor vehicles and the stone crushers was ineffective. The PCB, Motor Vehicles Department, Health department and Industries department of the State Government need to co-ordinate effectively for achieving effective implementation of the Air Act/Waste Management Rules in the State.

The matter was referred to Government and the Member Secretary, PCB in July 2001. Reply has not been received (October 2001).

3.2 Prevention and Control of Diseases

As part of Health Care Services, the State Department of Health Services is implementing four National Programmes, viz. National Tuberculosis Control Programme, National Programme for Control of Blindness, National AIDS Control Programme and National Leprosy Eradication Programme. A review of the implementation of these programmes except National AIDS Control Programme was featured in the Report of the Comptroller and Auditor General of India for the year ended March 1987 (Civil), Government of Kerala. The report had not been discussed as of June 2001. The four programmes were reviewed in Audit during January - May 2001.

3.2A National Tuberculosis Control Programme

Highlights

The Revised National Tuberculosis Control Programme (RNTCP), a 100 per cent Centrally Sponsored Scheme, was implemented in the State covering all the 14 districts in three phases. A review of the scheme revealed low detection of TB cases due to low percentage of outpatients detailed for undergoing sputum tests, lack of infrastructure facilities for X-ray examination of sputum smear negative and extra pulmonary TB cases, shortage of microscopy centres and non-involvement of Medical College/ESI/Private hospitals and NGOs.

- **Out of Rs 5.90 crore received from GOI by State/District Tuberculosis Control Societies during 1996-2001, Rs 3.14 crore (53 *per cent*) remained unspent as of March 2001.**

[Paragraph 3.2A.4]

- **Shortage of Microscopy Centres and non-functioning of existing centres denied the benefit of laboratory testing facilities to TB patients in four districts. In seven out of 12 District TB Centres there were no facilities for X-ray examination for diagnosis of TB cases.**

[Paragraph 3.2A.8 and 9]

- **During 2000-01 shortfall in detection of TB cases ranged from 39 to 64 *per cent* in five test-checked districts. Similarly, detection of new sputum positive cases was only 48 to 70 *per cent* of the estimated national average during 1999-2001. The shortfall was mainly due to non-participation of Medical College/ESI/ private hospitals and NGOs.**

[Paragraph 3.2A.10]

- **Children suffering from TB had no access to Directly Observed Treatment (DOT) under RNTCP. Failure of the DOT providers in furnishing the progress of treatment to the treatment centres would lead to non-follow-up of TB cases and could result in patients becoming Multi Drug Resistant.**

[Paragraph 3.2A.11]

- **There was no facility in the State for diagnosis of Multi Drug Resistant (MDR) TB and RNTCP had no provision for management of such patients.**

[Paragraph 3.2A.12]

3.2A.1 Introduction

The National Tuberculosis Control Programme (NTCP) launched by Government of India (GOI) in 1962 was revised in 1992 to achieve a higher cure rate of 85 per cent in a phased manner with the World Bank assistance. The Revised National Tuberculosis Control Programme (RNTCP), a 100 per cent Centrally sponsored scheme, was implemented in the State covering all the 14 districts in 3 phases between March 1997 and December 2000.

3.2A.2 Organisational set up

The Kerala State Tuberculosis Control Society (KSTCS) with the Secretary to Government, Health and Family Welfare Department as the Chairman was to

supervise and monitor the implementation of the programme in the State. The State Tuberculosis Officer (STO) and the District Medical Officer (Health) under the Director of Health Services were responsible for implementation of the scheme at State level and District level respectively. The State TB Training and Demonstration Centre (STDC) provided training, guidance, supervision, co-ordination, monitoring and technical assistance.

The District Tuberculosis Control Society (DTCS) was to formulate Annual Action Plan and the District Tuberculosis Officer (DTO) in charge of the District Tuberculosis Centre (DTC) was the nodal officer for implementation of the programme. The DTC functioned as a specialised referral centre. At the Sub District level, implementation was through TB unit (TU).

3.2A.3 Audit coverage

A review of the implementation of the programme was conducted in five* out of 14 districts with reference to the records of DTCSs, DTCs, TUs, Microscopy Centres and peripheral health institutions.

3.2A.4 Financial outlay

Fund released by GOI to the State during 1996-2001 and its utilisation are indicated below:

(Rupees in lakh)

53 *per cent* of GOI funds remained unutilised

Year	Opening Balance	Funds Released	Funds Utilised	Closing Balance
1996-97	..	Nil	Nil	..
1997-98	..	124.64	14.81	109.83
1998-99	109.83	103.07	44.49	168.41
1999-2000	168.41	295.10	94.99	368.52
2000-01	368.52	67.53	122.39	313.66
Total		**590.34**	**276.68**	

During 1996-2001, the DTCSs/KSTCS spent only 47 per cent of total funds released by GOI. In five* DTCSs test-checked Rs 75.26 lakh (out of total release of Rs 1.75 crore) allotted for purchase of computers, photocopiers, consumables, Information Education & Communication and printing, etc., remained unspent.

3.2A.5 Delay in implementation of RNTCP

Starting of the programme in six@ districts, approved by Government of India in November 1996, was delayed by more than a year due to non-availability of supervisory staff and delay in imparting training to staff.

3.2A.6 Annual Action Plan not prepared

In none of the test-checked districts the DTCSs prepared (May 2001) the Annual Action Plan ever since the implementation of RNTCP in the State. The

* Ernakulam, Kannur, Malappuram, Palakkad & Pathanamthitta.
@ Ernakulam, Kannur, Kasaragod, Kozhikode, Malappuram and Palakkad.

Annual Action Plan for 2001-02 prepared by the State TB Cell contained merely the requirement of funds under various activities and was thus hardly an Action Plan.

3.2A.7 Identification of patients and treatment outcome

Prior to October 1998, the programme was implemented only in Pathanamthitta District. The year-wise details of identification, treatment and discharge of patients in the State during 1998-99 to 2000-01 are indicated below:

Year of identification	Number of patients identified	Treatment outcome after 12-15 months						
		Cured	Treatment completion	Death cases	Failure cases	Defa-ulters	Transfer to other district	Total
1998-99	6377	2699	2674	253	163	453	135	6377
1999-2000	9442	4332	3971	395	192	479	73	9442
2000-01	19422	Treatment outcome is assessable only by April 2002.						

The achievements of the programme were as shown below:

Indicators	Expected level	Achievement on implementation (cases registered in previous year)		Achievement in test-checked districts (cases registered in previous year)	
		1999-2000	2000-01	1999-2000	2000-01
	(Percentage)				
Conversion rate	> 90	88	88	88	89
Cure rate	>85	84	87	89	90
Defaulter rate	<5	6.2	4.5	5	3
Death rate	<4	3.17	4	4	4
Treatment completion rate					
i) Retreatment	90	70	77	74	79
ii) Sputum negative cases	90	86	90	89	93

The above table showed that the conversion rate and the treatment completion rate of retreatment cases were below the expected level. Inappropriate treatment and irregularity in the administration of medicines could result in drug resistant TB. Absence of testing facilities for drug resistant TB in the State coupled with high cost involved in treatment could result in non-detection and non-treatment of such cases leading to increase in the number of drug resistant TB patients. Thus, low treatment completion rate carried the risk of increase in the rate of incidence of MDR TB cases.

3.2A.8 Shortage of TB units and microscopy centres

Shortfall in number of TB units and microscopy centres

One TB unit was to be established for every 5 lakh population and one microscopy centre was to cover a population of one lakh. However, as of May 2001 only five TB units were set up in Palakkad district against the requirement of six. Against the requirement of 122 numbers, shortfall in number of microscopy centres in four districts test-checked as at the end of May 2001 were 20 (7 in Palakkad, 5 in Kannur and 4 each in Ernakulam and Malappuram). The reasons for shortfall were attributed to non-receipt of sanction from Central TB Division, non-completion of civil works and want of

Laboratory Technicians. In Palakkad, three centres at Agali, Anakkatty and Nelliampathy were not functioning as of April 2001 for want of Laboratory Technicians. The tribal patients of these hilly areas were, therefore, deprived of the free laboratory service under the Programme. Further, non-functioning of the microscopy centres also resulted in the lack of following up of the patients suffering from pulmonary TB through periodical sputum tests.

3.2A.9 Lack of infrastructure facilities

X-ray facility was lacking in 7 out of 12 DTCs

X-ray examination was essential for the diagnosis of smear negative TB and some forms of extra pulmonary TB. Information collected by audit (May 2001) from 12 districts showed that X-ray facility was available only in five* DTCs. In the absence of X-ray facility in seven other districts, the patients were referred to nearby Government hospitals or private institutions.

3.2A.10 Shortfall in case finding

i) Low detection of cases

Magnitude of incidence of TB was not adequately assessed in any of the districts test-checked. As per the guidelines of the programme for active case finding at least 2 per cent of adult outpatients were to be persuaded to undergo sputum smear examination for diagnosis of tuberculosis against which State level percentage during 2000-01 was only 1.3. Failure in conducting the minimum percentage of smear examination would result in non-detection of TB patients. The shortfall in detection against the national average of 135 per one lakh population during 2000-01 was between 39 per cent and 64 per cent in 5 test checked districts as indicated below:

Shortfall in detection of TB cases ranged between 39 and 64 *per cent*

District	Population in lakh	Percentage of adult out- patients who underwent sputum test to total no. of adult out-patients	Target no. of cases to be detected @ 135 per 1 lakh population	No. of cases detected	Shortfall and its percentage in brackets
Palakkad	29	1.79	3915	1506	2409 (62)
Ernakulam	32.6	1.62	3532	2168	1364 (39)
Kannur	25	1.50	3375	1753	1622 (48)
Malappuram	35	1.28	4725	1720	3005 (64)
Pathanamthitta	11.8	2.04	1600	726	874 (55)

Shortfall in detection of sputum positive cases ranged between 30 and 52 *per cent* during 1999-2001

Out of 135 TB cases per one lakh population, it was estimated that 50 cases would be new sputum positive#. It was, however, noticed that during 1999-2001 actual detection of sputum positive cases was 24 to 35 per one lakh population in the test-checked districts. Shortfall ranged between 30 and 52 per cent in test-checked districts.

Apart from the low percentage of patients detailed for sputum smear examination, the Central TB Division, New Delhi attributed the shortfall in detection of TB patients to non-functioning of Microscopy centres, non-participation of Medical College/ESI/Private hospitals and NGOs in the

* Kannur, Kollam, Palakkad, Pathanamthitta and Thiruvananthapuram.

\# Pulmonary TB patients undergoing treatment for the first time.

implementation of the programme. The STO stated (May 2001) that Medical College Hospitals and ESI Hospitals could not be covered due to lack of funds for imparting training to their staff. This was not tenable as huge balances remained unspent with the DTCSs every year.

3.2A.11 Treatment

a) Inadequate treatment under RNTCP

i) RNTCP was introduced in view of the poor cure rate under NTCP. As per the guidelines, the self-administered regimen under NTCP was to be restricted to the exceptional cases of TB patients who refused or were unable to take DOT or who could not comply with short course of chemotherapy due to drug toxicity.

Children suffering from TB had no access to DOT under RNTCP

In none of the districts test-checked, paediatric TB cases were treated under RNTCP on the plea of non-supply of medicines in kits for children. However, guidelines provided for the packing of medicines into kits for children according to the prescribed dosage with reference to their body weight. This showed that children suffering from tuberculosis had no access to DOT under RNTCP, which could have ensured higher cure rate.

In Malappuram District a large number of patients continued to be treated under NTCP even after introduction of RNTCP (October 1998). As a result, the number of cases treated under NTCP instead of going down, increased from 544 during 1999-2000 to 1312 during 2000-01 unlike in other test-checked districts where the number decreased significantly after introduction of RNTCP. Since higher percentage of cure rate was ensured under RNTCP, the continuance of treatment of large number of patients under NTCP after the introduction of RNTCP was not justified.

ii) Under RNTCP, the medicines were to be administered by the DOT[**] provider. Peripheral health worker acting as DOT provider was to transfer information recorded in treatment cards to the original Master card kept at the PHC/CHC at least once a month to facilitate monitoring the progress of treatment with regard to regular medication and timely conduct of bacteriological examination. This was not done by the DOT providers of Microscopy centres at Pattambi (Palakkad), Koppam (Palakkad), Angamali (Ernakulam) and TB unit, Aluva (Ernakulam) during the period from April to September 2000. In TB unit, Ottappalam (Palakkad) and TB unit, Aluva (Ernakulam) in 29 out of 90 TB cases and 40 out of 77 cases respectively registered between April 2000 and September 2000, follow-up details of timely administration of medicines and sputum tests were wanting. This could have adverse effects on the programme as defaults in administration of the medicines could result in the patient becoming a Multi Drug Resistant TB (MDRTB) patient.

[**] Directly Observed Treatment.

b) Wrong classification of patients

i) As per the guidelines, number of smear negative/extra pulmonary cases coming under Category[#] I regimen would not exceed 20 per cent. During April to June 2000, such cases were found 45 per cent in Palakkad district due to treating Category III patients under Category I. By such incorrect classification, the patients were administered additional medicine (Ethambutol) not required for Category III patients. The District TB Officer stated (May 2001) that direction had been issued to improve the position.

ii) As per the guidelines, retreatment of smear positive cases would be about 50 per cent of new sputum positive cases in the initial years of implementation. During April to December 2000, retreatment sputum positive cases were found to be 12 per cent (63 cases) and 14 per cent (73 cases) in Palakkad and Ernakulam districts respectively. The lower percentage was indicative of recording of inaccurate case history regarding earlier treatment under NTCP which might have led to wrong classification of patients.

c) Lack of monitoring

As per guidelines, extra pulmonary cases should account normally for about 10 per cent of the total pulmonary cases. Higher percentage of extra pulmonary cases indicate under-diagnosis of pulmonary cases and/or over-diagnosis of extra pulmonary cases. Both the situations needed technical monitoring. During various periods in 2000-01 the percentage of extra-pulmonary cases in five test-checked districts was between 20 to 37.

However, no technical monitoring was done by District TB Officer/State TB Officer to ensure adequacy of testing facilities, competency of Laboratory technicians and correctness of classification of patients so as to find out the reasons for higher percentage of extra pulmonary cases.

3.2A.12 Multi Drug Resistant (MDR) cases

No facility for management of MDR TB patients in the State

Patients who remained smear positive even after completing the retreatment regimen were suspected of having drug resistant TB and were to be referred to a referral centre for Multi Drug Resistant (MDR) TB. There was neither any such facility in the State nor any provision for the management of MDR TB patients under RNTCP. During 1996-2000, there were 93 suspected cases in four districts[*] of which 12 cases in Thiruvananthapuram were sent for testing and 5 cases were confirmed. Though such cases were referred to Medical College Hospitals, no follow-up action appeared to have been taken. The reasons for development of MDRTB in the above cases had not been analysed.

[#] Category I: New patients with sputum positive result, New patients with sputum negative result (if seriously ill), Extra pulmonary TB patients (if seriously ill)
Category II: Sputum positive
-Relapse cases (very rarely sputum negative/Extra pulmonary cases also)
-Failure cases
-Treatment after default
Category III: New patients with sputum negative result (not seriously ill)
Extra-pulmonary TB patients (not seriously ill)

[*] Ernakulam: 2, Palakkad: 2, Pathanamthitta: 77, Thiruvananthapuram: 12.

3.2.B National Programme for Control of Blindness

Highlights

The National Programme for Control of Blindness, a 100 per cent Centrally Sponsored Scheme was revised during Ninth Plan with the objective of reducing avoidable blindness due to cataract and other diseases to 50 per cent by 2002 AD. Possibility of achieving the above target was remote due to lack of infrastructure facilities for eye surgery, non-achievement of cataract surgery rate of 400 per 1 lakh population, non- functioning of eye banks and non-availability of trained eye surgeons in IOL.

- **Results of survey conducted to identify blind persons were not reliable due to inadequate coverage. As a result, action plan formulated in 8 districts did not serve the intended purpose.**

[Paragraph 3.2B.5]

- **Against the target of 400 cataract surgery per 1 lakh population, achievement during 1998-2001 in the State did not go beyond 273 in any year. Possibility of achieving the objective of reducing avoidable blindness to 50 *per cent* by 2002 is remote.**

[Paragraph 3.2B.6(a)]

- **Due to lack of separate operation theatres and separate beds for eye treatment the services of even the available trained ophthalmic surgeons were not utilised. Shortfall in achievement of target for performance of cataract operations in Government sector ranged between 56 and 96 *per cent* during 1999-2001.**

[Paragraph 3.2B.6(b)]

- **Out of 14 eye banks (Government sector:12, Private sector:2) approved in the State, 10 (Government sector:9, Private sector:1) were not functioning as of May 2001 due to absence of various facilities.**

[Paragraph 3.2B.7]

3.2B.1 Introduction

National Programme for Control of Blindness (NPCB) was launched in 1976 as a 100 per cent Centrally sponsored programme with the aim of reducing prevalence of blindness from 1.4 per cent to 0.3 per cent through various activities like establishment of Regional Institutes of Ophthalmology, upgradation of Medical Colleges and District Hospitals, development of mobile eye units, recruitment of various ophthalmic manpower and provision of various ophthalmic services. The implementation of the programme was decentralised (1994-95) by establishing District Blindness Control Society (DBCS) in all districts. Survey conducted by Government of India during

1997-98 revealed that the prevalence rate (1.49 per cent) remained more or less the same since 1986. The revised programme aimed at reducing avoidable blindness due to cataract and other diseases to 50 per cent by 2002 AD.

3.2B.2 Organisational set up

The State Programme Officer was responsible for implementation of the programme in the State under the supervision of the Director of Health Services. The State Blindness Control Society, the apex society of district societies, was not constituted even as of June 2001 despite Government of India orders (April 2000). At district level, DBCS headed by District Collector and assisted by District Medical Officer (Health) implemented the programme. The District Programme Manager (Co-ordinator) was responsible for the day-to-day management of the programme.

3.2 B.3 Audit coverage

A review of the implementation of the programme for the period 1996-97 to 2000-01 was conducted by Audit during March to June 2001 covering five* out of 14 districts and State Ophthalmic Cell in the Directorate of Health Services. The following points emerged.

3.2 B.4 Utilisation of GOI funds

Short utilisation of GOI funds

Government of India (GOI) released Rs 3.84 crore to all the 14 DBCSs during 1996-2001, of which Rs 71.04 lakh (19 per cent) remained unutilised as of March 2001. The year-wise details are indicated below:

(Rupees in lakh)

Year	Opening balance	Funds released	Funds utilised	Closing balance
1996-97	28.46	18.00	35.80	10.66
1997-98	10.66	58.00	44.63	24.03
1998-99	24.03	73.00	70.11	26.92
1999-2000	26.92	103.18	111.29	18.81
2000-01	18.81	131.80	79.57	71.04
Total		**383.98**	**341.40**	

3.2 B.5 Unreliable survey results to identify blind persons

As per the Mid Term Review report, active case finding was recommended to assess the magnitude and spread of blindness in the district by listing of blind persons after conducting a door to door screening of population at risk (people above 50 years of age) and preparing village-wise blind registry. The purpose of preparation of blind registry was to formulate District Action Plan for cataract performance. GOI provided (March 1999) Rs 16 lakh to the State for preparation of blind registry in 8 districts reckoning the prevalence of blindness as 1.5 per cent (national average). However, blind persons identified (2000-01) were around 0.1 per cent of total population. The details of the survey conducted in the 4 districts test-checked are given below:

* Ernakulam, Kannur, Malappuram, Palakkad and Thiruvananthapuram.

District	Population (in lakh)	Blind persons identified and its percentage to population in brackets	Expected number as per prevalence rate of 1.5 *per cent*	Shortfall and its percentage in brackets
Thiruvananthapuram	29.5	2460 (0.08)	44250	41790 (94)
Ernakulam	32.6	1809 (0.05)	48900	47091 (96)
Palakkad	29.0	3187 (0.11)	43500	40313 (93)
Malappuram	35.0	3577 (0.10)	52500	48923 (93)

The survey results were not reliable due to inadequate coverage and also due to the fact that the number of blind persons actually identified was less than 7 per cent of the number to be identified based on national average. This defeated the very purpose of preparation of blind registry. The District Action Plan prepared based on the unreliable survey results did not serve the intended purpose of reducing the prevalence rate of blindness to the desired level within a time frame.

3.2B.6 Targets and achievement of cataract operation

(a) Shortfall in achievement of cataract operations

As per Mid Term Review conducted by Government of India during 1997-98, a District Action Plan was to be prepared to achieve at least 400 cataract operations per one lakh population with an annual increase of 10 per cent. However, the annual targets fixed in the State were 232 in 1998-99 and 275 each in 1999-2000 and 2000-01 whereas achievements were 226, 273 and 248 respectively. Thus the achievements in the State were far below the targets of the revised programme and possibility of achieving the objective of reducing curable blindness to 50 per cent by 2002 is remote.

(b) Shortfall in achievement of cataract operations in Government sector

Shortfall in achievement of cataract operations ranged from 56 to 96 *per cent*

As per the review report of the GOI, a surgeon could conduct 700 operations in a year under optimal conditions. The above level of performance was not achieved in any of the districts test-checked and the shortfall in achievement was in the range of 56 to 96 per cent as shown below:

Year	District	Number of surgeons posted	Number of cataract surgeries performed	Average operations per surgeon	Shortfall with reference to target of 700 operations per surgeon and its percentage in brackets
1999-2000	Malappuram	6	952	159	541 (77)
	Kannur	5	1229	246	454 (65)
	Palakkad	3	99	33	667 (95)
	Ernakulam	14	1705	123	577 (82)
	Thiruvananthapuram	31	4427	143	557 (80)

Year	District	Number of surgeons posted	Number of cataract surgeries performed	Average operations per surgeon	Shortfall with reference to target of 700 operations per surgeon and its percentage in brackets
2000-01	Malappuram	6	942	157	543 (78)
	Kannur (upto December 2000)	5	1166	311	389 (56)
	Palakkad	3	73	27	673 (96)
	Ernakulam (upto February 2001)	14	1968	141	559 (80)
	Thiruvananthapuram (upto September 2000)	31	2102	136	564 (81)

Lack of infrastructure in Government sector affected performance of cataract surgeries

For reducing the prevalence rate of blindness, eye care facilities were to be improved by setting up operation theatres for ophthalmology, training of surgeons in Intra Ocular Lens (IOL), supply of ophthalmic equipments/ sutures/IOL, etc. In the districts test-checked cataract performance in Government sector was as shown below:

Name of District	Year	Total number of cataract surgeries in the district (in Government and private sectors)	Total number of cataract surgeries done in Government Sector and its percentage in brackets
Palakkad	1998-2001	19180	267 (1.4)
Ernakulam	1998-2001	31023	5490 (18)
Malappuram	1998-2001	13500	3044 (23)
Kannur	1998-2001	16182	4558 (28)*
Thiruvananthapuram	1998-2001	17685	10140 (57)*

The District Programme Managers attributed the low performance to lack of separate operation theatres and trained ophthalmic surgeons in Government hospitals. During 1999-2000, only 19 per cent of the cataract surgeries were done in Government sector. According to the Report (2000-01) of State Ophthalmic Cell, out of 78 ophthalmic surgeons in Government hospitals, 51 were trained in IOL and only 22 Government hospitals (out of 75) had separate operation theatres for conducting ophthalmic operations. For utilising the services of 51 trained surgeons as against 714 eye beds required, only 396 beds were available. Due to absence of separate operation theatres and sufficient eye beds, the services of even the available trained ophthalmic surgeons could not be utilised to the optimum level.

(c) Functioning of District Mobile Units (DMUs)

Functioning of DMUs was poor

The DMU consisted of one post each of Ophthalmic Surgeon, Ophthalmic Assistant, Camp Co-ordinator, Staff Nurse, Driver and Peon. Against the target of 7500 cataract operations (1500 per unit) per year to be performed by the Mobile units in the 5 test-checked districts, achievement of the units was in the range of 1395 (19 per cent) to 1745 (23 per cent) for the period 1998-2001 indicating the poor performance of these units. Shortfall was mainly due to lack of separate operation theatre in Government hospitals.

* Medical College existed in these districts.

3.2B.7 Very few Eye Banks in the State

10 out of 14 Eye Banks in the State were not functioning

In Government sector, only 3 out of 12 Eye Banks and in private sector, one out of 2 Eye Banks were functioning as of May 2001. The fact that during 1998-2000 the three Eye Banks under Government sector collected only 194 eyes (utilised 151 eyes) and the private Eye Bank collected 448 eyes (utilised 287 eyes) showed that the performance of Eye Banks in the State could improve much if the remaining eye banks also became operational.

The State Programme Officer stated (June 2001) that sophisticated facilities and trained surgeons required for eye banking were not available in Government hospitals which resulted in non-functioning/poor performance of Eye Banks.

3.2B.8 Rehabilitation of the incurably blind

'Rehabilitation of the incurably blind' is one of the components of the programme. Out of 302 cases of incurably blind identified in the State, 105 cases were proposed for rehabilitation and only 10 persons in Kollam District were rehabilitated. No specific funds were allotted to DBCSs for this programme.

3.2B.9 Regional Institute of Ophthalmology, Thiruvananthapuram

Government of India sanctioned (September 2000) Rs 20 lakh to Regional Institute of Ophthalmology (RIO), Thiruvananthapuram for strengthening of the Institute as an Eye Care Training Centre. The amount was credited to savings bank account of DBCS and was not utilised as of May 2001. The District Programme Officer, Thiruvananthapuram stated (May 2001) that the Director, RIO, Thiruvananthapuram entrusted the work to the Public Works Department and funds would be released based on progress of work.

3.2B.10 Quality control

The standard cataract surgery records containing information regarding pre-operation check up, surgical details, post-operative assessment and follow-up services were to be kept for each operation performed.

In five test-checked districts no reports regarding the outcome of treatment and follow up actions were obtained from Government/Non-Government eye care facilities. Information about the restoration of visions were also not available with District Blindness Control Societies. The outcome of treatment and follow-up measures taken were not being monitored.

3.2B.11 Monitoring and evaluation

The District Blindness Control Societies had been sending regularly Annual Action Plan and Progress reports to the State Cell. However no evaluation or analysis of the reports were done at State level. The reason attributed by the State Level Officer was lack of manpower.

3.2C National AIDS Control Programme

Highlights

The National AIDS[*] Control Programme launched by GOI in 1992 was intended to achieve maintenance of HIV[@] prevalence rate below 1 per cent, reduction in blood borne transmission of HIV, creating awareness among youth, etc. The review revealed lack of infrastructure for starting new blood banks even in hospitals where equipment were supplied by National AIDS Control Organisation (NACO), delay in renewal of licence to blood banks leading to illegal functioning of blood banks, non-functioning of blood component separation units leading to lack of optimum utilisation of blood.

- **The shortfall in release of funds by NACO with reference to the approved outlay on the programme for the period 1996-2001 was Rs 12.65 crore.**

[Paragraph 3.2C.4]

- **Delay in arranging joint inspection for renewal of licence led to the illegal functioning of blood banks. This defeated the objective of supply of safe and quality blood.**

[Paragraph 3.2C.7 (a)]

- **Three out of 29 blood banks for which assistance was given by NACO had not started functioning even as of May 2001.**

[Paragraph 3.2C. 7(b)(i)]

- **Though equipment costing Rs 26.96 lakh had been purchased and supplied by State AIDS Cell for 12 blood banks at various Government hospitals, these were not put to use even as of May 2001 due to non-availability of qualified doctors and infrastructure.**

[Paragraph 3.2C. 7(b)(ii)]

- **Though blood component separation facilities were provided by NACO in 4 blood blanks, the facility was not put in place in 2 blood banks at Medical Colleges, Kottayam and Kozhikode.**

[Paragraph 3.2C. 7(c)]

3.2C.1 Introduction

Government of India launched (September 1992) the National AIDS Control Programme, a 100 *per cent* Centrally Sponsored Scheme, with the ultimate

[*] Acquired Immune Deficiency Syndrome.
[@] Human Immuno deficiency Virus.

objective of slowing down the spread of HIV and to reduce the future morbidity, mortality and impact of AIDS. The first phase of the project was in existence up to 31 March 1999 and the second phase which started from April 1999 was intended to achieve the maintenance of HIV prevalence rate below 1 per cent of adult population in Kerala, reduction in blood born transmission of HIV to less than 1 per cent, attainment of awareness level of not less than 90 *per cent* among the youth and condom use of not less than 90 *per cent* among high risk categories like commercial sex workers.

3.2C.2 Organisational set up

In the first phase the State AIDS Cell headed by a State AIDS Programme Officer (SAPO) in the Directorate of Health Services (DHS) was responsible for the implementation of the programme. State AIDS Committee with the Chief Secretary as the Chairperson and a Technical Advisory Committee headed by DHS was to co-ordinate and monitor the implementation of the programme.

During the second phase, the Kerala State AIDS Control Society (KSACS) headed by a Principal Director having a governing body with Chief Secretary as Chairperson and an executive committee headed by the Secretary to Government, Health & Family Welfare Department was responsible for the implementation and monitoring of the programme. KSACS was assisted by a State AIDS Programme Officer (SAPO). The District Medical Officers (DMOs) were also involved in implementation of the programme at the District level.

3.2C.3 Audit coverage

A review of the implementation of the Scheme covering the period 1996-97 to 2000-01 was conducted by scrutiny of the records in the offices of the State AIDS Cell, State AIDS Control Society, Health and Family Welfare Department in the Secretariat, State Drugs Controller, Thiruvananthapuram, four[1] out of 14 District Medical Offices, 10 (out of 31) modernised blood banks attached to Medical Colleges and hospitals, five (out of 20) STD clinics attached to hospitals, two (out of 3) blood component separation units and the Surveillance Centre attached to Microbiology Department of Medical College, Thiruvananthapuram. The audit findings are discussed below:

3.2C.4 Fund allocation and flow of expenditure

Shortfall in release of funds by NACO during 1996-2001 was Rs 12.65 crore

The year-wise details of allocation and release of funds by NACO and expenditure incurred by the KSACS during 1996-2001 were as shown below:

[1] Ernakulam, Kollam, Kozhikode and Thiruvananthapuram.

(Rupees in crore)

Year	Opening balance	Fund approved by NACO	Fund released by NACO	Expenditure Incurred by State AIDS Cell/ KSACS	Closing balance
1996-97	1.71	5.48	2.25	1.38	2.58
1997-98	2.58	3.48	1.00	2.29	1.29
1998-99	1.29	5.24	Nil	3.46	[@]
1999-2000	[*]	4.58	3.45	2.87	0.58
2000-01	0.58	3.50	2.93	2.87	0.64
Total		**22.28**	**9.63**	**12.87**	

The release of each instalment of grant was subject to utilisation of earlier grants. The shortfall in release of funds by NACO during 1996-2001 amounted to Rs 12.65 crore.

3.2C.5 Component-wise targets and achievements

Details of component-wise allocation of funds for the years 1996-97 to 1998-99 were not made available to Audit. During 1999-2000 and 2000-01, component-wise financial achievements were as under:

(Rupees in crore)

Name of component	Total fund allocated for 1999-2001	Total expenditure during 1999-2001	Percentage of expenditure to allocation
Targeted intervention against HIV/AIDS	1.82	1.22	67
Preventive intervention for general community	3.33	3.19	96
Institutional strengthening	2.12	1.22	58
Low Cost AIDS Care	0.74	0.10	14
Intersectoral collaboration	0.08	Nil	Nil

3.2C.6 STI/HIV/AIDS surveillance

The objective of the programme was to develop an effective surveillance system generating a set of reliable data. The HIV statistics on surveillance done by the surveillance centre at Medical College, Thiruvananthapuram, revealed that the prevalence of HIV positive persons increased from 4.4 per cent (in 1996) to 9.6 per cent (in 2000) of the numbers screened which indicated ineffective programme implementation.

3.2C.7 Functioning of Blood Banks in the State

One of the components of National AIDS Control Programme was "Improved blood safety to reduce transmission of HIV through blood". Under the programme, 29 Government blood banks and 6 private blood banks were modernised during the first phase of the programme. There were 76 more licensed blood banks under private sector as on 31 March 2001.

[@] The excess in expenditure was met from State funds.
[*] From 1 April 1999 the programme was implemented by KSACS.

(a) Licensing of blood banks

All the blood banks were to obtain licence for their operation from the Central Drugs Controller, New Delhi. The licence was to be issued only after conducting a joint inspection of the blood banks, by a team consisting of representatives of State Licensing Authority, Central Licence Approving Authority and blood bank experts. A licence was to be renewed by 31 December of the year following the year in which it was issued. However, as of April 2001, 88 applications for renewal were pending with the State Licensing Authority due to delay in joint inspection to be arranged by the Central Drugs Controller. In 21 cases test-checked in the office of the State Drugs Controller, it was noticed that in 16 cases (3 in Government sector and 13 in Private sector) licence were not renewed, as joint inspection was pending.

Licences of eight blood banks (6 under Government sector and 2 under Private sector) expired between December 1996 and December 2000 were refused renewal after the joint inspections conducted between February 1999 and March 2001, on the ground of non-availability of trained doctors/technicians, lack of equipment and infrastructure, etc. However, these blood banks were functioning without licence as of April 2001.

The delay in arranging joint inspection for renewal of licence led to the illegal functioning of the blood banks and this defeated the objective of supply of safe and quality blood.

(b) Non-functioning of blood banks

Three blood banks had not started functioning despite supply of equipments by NACO

(i) Out of 29 Government blood banks for which assistance for modernisation was given by NACO, 3 blood banks attached to General Hospital, Adimali, Taluk Head Quarters Hospital, Mannarghat and District Hospital, Kanjangad did not start functioning as of May 2001. A test-check of records of General Hospital, Adimali revealed that equipment like Voltage Stabilizer, Refrigerators, Temperature recorders, Clinical Centrifuge, Air Conditioners, etc., worth Rs 2.14 lakh received from NACO during May - July 1996 were not yet installed as of April 2001. Other equipment like chest refrigerators, blood transport containers and voltage stabilizers received during July 1999 - July 2000 (value not available) were also idling from the date of their receipt. The building for the blood bank was completed only by December 1998 and the air conditioning work remained to be completed by the local body as of April 2001.

12 blood banks had not become operational due to lack of infrastructure and qualified doctors

(ii) For 12 blood banks proposed to be started by the State AIDS Cell at various Government Hospitals[2], 36 air conditioners worth Rs 9.17 lakh and other equipment costing Rs 17.79 lakh (viz. blood bank refrigerators, centrifuge, water bath, incubator, weighing balance) were purchased by the State AIDS Cell and supplied during April-May 1998. But none of these 12 blood banks had become operational as of May 2001. A test check in two

[2] Adoor, Changanassery, Haripad, Karunagappally, Koothuparambu, Kottarakkara, Moovattupuzha, Neyyattinkara, Ottappalam, Ponnani, Quilandy, Thodupuzha.

(Neyyattinkara and Kottarakkara) out of 12 institutions revealed that the blood banks were not started due to non-completion of infrastructure facilities and non-availability of qualified doctors. There was total lack of monitoring by the DHS/State Government and lack of co-ordination between the KSACS and the Health Department. As a result the blood banks were not started.

(c) Lack of blood component separation facilities

According to NACO, the optimum utilisation of blood could be ensured only by establishing blood component separation units. Though such facilities were provided to blood banks attached to Medical College Hospitals in Thiruvananthapuram, Kozhikode and Kottayam and IMA blood bank, Kochi during phase I of the programme, the units at Kozhikode and Kottayam did not start functioning as of August 2001. According to the KSACS (August 2001) action was under way to grant licence to them to make blood component separation units. Due to non-functioning of the units the object of optimum utilisation of the blood collected was not achieved.

(d) Non-functional State Blood Transfusion Council

Government of Kerala accorded sanction in June 1996 for formation of a State Blood Transfusion Council with a view to motivating people for voluntary donation of blood, training of blood bank personnel, implementation of schemes for modernisation of blood banks, etc. Out of Rs 12 lakh received from State Government/NACO during 1996-2001 for the activities of the Council, only Rs 2.17 lakh was utilised as of May 2001 and the unspent balance remained in a Public Sector Bank account. Though the governing body of the Council was constituted in February 1997, only two meetings (in March 1997 and December 1997) were held till date and no executive committee had yet been formed. In March 1997 the Council resolved to start a Post Graduate course in Blood Banking Transfusion Medicine in Medical Colleges, but no such course was started as of May 2001.

3.2C.8 Voluntary blood testing centres not started

During 1998-99, NACO sanctioned five voluntary blood testing centres at five Medical College hospitals. Four more hospitals/public health laboratories were identified during second phase (from April 1999) by KSACS for starting voluntary blood testing centres. None of the centres started functioning as of April 2001. The SAPO stated (August 2001) that the centres could not be made operational for want of necessary equipment. One voluntary blood testing centre was to be established in each district during the second phase of the programme. Out of Rs 32.88 lakh allocated by NACO during 1999-2001 for voluntary testing and counselling, only Rs 0.6 lakh was spent by KSACS during 2000-01.

3.2C.9 Lack of counselling service

As decided (August 1997) in the programme review meeting of State AIDS Programme Officers (SAPO) at least 4-5 counselling centres at STD clinics were to start functioning by the end of 1997-98. The counselling service could

be started only from February 1999 due to delay in appointment of counsellors. The counsellors were appointed by the KSACS on contract for a period of one year and later on, the appointment was to be made by the concerned institutions. However, due to non-appointment of counsellors after expiry of the contract period 17 STD clinics were functioning without counselling service for periods ranging from 2 to 19 months as of May 2001.

3.2C.10 Idling of equipment

Medical College Hospital, Thiruvananthapuram purchased and installed one incinerator costing Rs 11.76 lakh in March 2000, but the same could not be commissioned as of October 2001.

3.2C.11 Non-submission of accounts and utilisation certificates by NGOs

Though Rs 23.29 lakh was provided to 22 NGOs during 1998-99, the utilisation certificates and accounts were not furnished by them till May 2001. This indicated lack of proper monitoring of the programmes by the State AIDS Cell. Appointment of NGO advisor to monitor the programmes implemented through NGOs was made only in March 1999.

3.2C.12 Monitoring and evaluation

According to the programme (Phase II), each AIDS Control Society should have a Monitoring and Evaluation (M&E) Officer and monitoring and evaluation would be conducted by outside agencies at baseline, interim and final years. However, no M&E Officer was appointed and no baseline survey conducted as of May 2001. The SAPO attributed this to paucity of funds. Thus there was little monitoring of the programme.

The KSACS was registered in November 1998 for the speedy and effective implementation of the programme. According to the Draft Memorandum of Association of the Society, the governing body shall meet at least twice in a year. However, the governing body met only two times till March 2001 since its formation. The State AIDS Programme Officer stated that Chief Secretary who was the Chairperson of the Governing body could not spare much time due to his pressing official commitments.

3.2D National Leprosy Eradication Programme

Highlights

The National Leprosy Eradication Programme (NLEP) introduced in 1982 envisaged a specialised form of treatment for leprosy known as Multi Drug Therapy (MDT). The review revealed that the NLEP activities introduced with a view to wiping out leprosy could not achieve the expected results despite the fact that the programme has been under implementation for more than 15 years mainly due to non-creation of required infrastructure facilities, lack of man power in critical cadres and lack of supervision and monitoring at all levels (Central, State, District and Unit level). The classification of district was wrongly made based on unrealistic Prevalence Rate (PR) calculated with

reference to inadequate coverage of population and defective method of calculation of PR.

- **Excess expenditure of Rs 1.29 crore against funds released by Government of India during 1996-99 has not been reimbursed.**

[Paragraph 3.2D.4]

- **Target fixed by GOI was low due to defective classification of districts based on wrong PR. As a result, achievement shown in 3 out of 5 years from 1996 to 2001 appeared to be high.**

[Paragraph 3.2D.5]

- **The prevalence rate reported by DHS was not reliable due to over-reporting of coverage of population, low percentage of coverage of population and defective method adopted for calculation of PR. Hence classification of districts based on this defective PR was not reliable.**

[Paragraph 3.2D.6]

- **Only 3 to 17 schools were surveyed annually in Thrissur urban area. Leprosy units were not properly located for optimum coverage. Four Reconstructive Surgery Units sanctioned by Government of India were yet to be started due to lack of manpower. Survey unit to assess extent of shortfall in detection of new cases was not sanctioned by the State.**

[Paragraph 3.2D.7]

- **Infrastructure created was not adequate to cover the whole State under MDT.**

[Paragraph 3.2D.8]

3.2D.1 Introduction

The National Leprosy Control Programme (NLCP) was redesignated as National Leprosy Eradication Programme (NLEP) in 1982, by introducing a specialised form of treatment for leprosy known as Multi Drug Therapy (MDT) in a phased manner with 100 per cent Central assistance. The MDT aimed at early detection and treatment to prevent deformities, preventing the spread of leprosy by rendering all infectious cases as non-infectious and disseminating correct information about the disease to remove social stigma through systematic health education. The MDT was first introduced in Alappuzha district in Kerala in 1987. The introduction of MDT in five hyper

endemic districts[*], five endemic districts [@] and remaining four low endemic districts[$] in Kerala was completed by 1995.

3.2D.2 Organisational set up

The Director of Health Services (DHS) was the nodal officer for implementation of the Scheme in the State. The Deputy Director of Health (Leprosy) was the State Leprosy Officer (SLO). The NLEP was being implemented through 14 District Leprosy Societies (DLS) with the District Leprosy Officer (DLO) as Member Secretary and District Collector as Chairman. Under the 14 DLSs, there were 11 District Leprosy units (DLU), 26 Leprosy Control Units (LCU) / Modified Leprosy Control Units (MLCU), 50 Urban Leprosy Centres (ULC), 162 Survey Education Treatment centres (SET), 1 Reconstructive Surgery Unit, 3 Hospitals and 17 voluntary agencies. The programme was carried out through Leprosy Inspectors (LI)/Non-Medical Supervisors (NMS) / Medical Officers (MO).

3.2D.3 Audit coverage

A review was conducted (January – May 2001) by test-check of the records in the Directorate, 6 DLO[**] offices and 53 field units, 5 voluntary organisations and one hospital. The results of audit are discussed below:

3.2D.4 Budget provision and expenditure

The budget provision, amount released by Government of India (GOI) in cash and kind and expenditure during 1996-2001[$] are given below:

(Rupees in lakh)

Year	Central grant received			Budget Provision	Expenditure incurred and certified by AG(Audit)	Excess (+) Savings (-) with reference to release & certified expenditure
	Cash	Kind	Total			
1996-97	95.00	-	95.00	153.71	160.52	(+) 65.52
1997-98	77.50	10.00	87.50	155.48	174.92	(+) 87.42
1998-99	115.65		115.65	90.92	91.90	(-) 23.75
1999-2000	12.50	-	12.50	10.00	67.03[@]	[@]
Total	300.65	10.00	310.65	410.11	494.37	(+) 129.19

Reimbursement of Rs 1.29 crore for 1996-99 not claimed from GOI

During 1996-99, there was excess expenditure over the Central release to the tune of Rs 1.29 crore. No step was taken by DHS or Government to get the amount reimbursed as of March 2001. Reason for not claiming the amount was not furnished by DHS/Government.

[*] Alappuzha, Kollam, Palakkad, Thiruvananthapuram & Thrissur.
[@] Ernakulam, Kannur, Kasargod, Kozhikode & Malappuram.
[$] Idukki, Kottayam, Pathanamthitta and Wayanad.
[**] Ernakulam, Kannur, Kottayam, Pathanamthitta, Thiruvananthapuram and Thrissur.
[$] As no Central grant was received during 2000-01, there was no provision and expenditure.
[@] Expenditure not certified by Accountant General (Audit).

3.2D.5 Fixation of low target

The target fixed by GOI vis-a-vis achievement of the State for the last five years are shown below:

Year	Case detection			Treatment			Case deletion		
	Target	Achieve-ment	Perce-ntage	Target	Achieve-ment	Perce-ntage	Target	Achiev-ement	Perce-ntage
1996-97	4000	5795	145	4000	5720	143	5500	7903	144
1997-98	5000	4699	94	5000	4695	94	7500	6606	88
1998-99	6650	5692	86	6650	5689	86	8000	6038	76
1999-2000	3000	4809	160	3000	4809	160	6000	5094	85
2000- 01	2500	3209	128	2500	3209	128	4000	4225	106

The reason for fixing low target by Government of India was due to the defective classification of the districts based on wrong PR as a result of which achievement exceeded the target set for three out of 5 years from 1996-2001.

3.2D.6 Unreliable figure of Prevalence Rate

The strategy of NLEP was early case detection, prompt treatment with MDT and prevention of disability among patients thereby reducing the PR of leprosy to less than 1 per ten thousand population. For detecting all the leprosy cases, the entire population was to be covered by intensive survey. But it was noticed that the actual coverage of population during 1995-2000 ranged between 92.40 lakh and 1.25 crore against the total population[*] of 3.07 crore to 3.28 crore during 1995-2000. The PR per ten thousand population reported to GOI by the DHS in October 2000 was between 0.34 and 1.39 for 14 districts. Thus PR calculated on such inflated report was not reliable due to the following reasons:

(a) Inflated figure/low percentage of coverage of population

The jurisdiction prescribed for a LI was 20-25 thousand population in plain areas and 5 thousand population in hilly areas and he has to cover atleast 5 thousand population in a year. In urban area, for every 50 thousand population there should be an Urban Leprosy Centre (ULC) under the control of an NMS. However, with the available manpower (LIs at Government level: 396, PMW at Contract level: 204, NMS in 50 ULCs-50), the department could not have covered more than 55 lakh[**] population per annum. Similarly, in 7 test-checked districts the possible coverage of population for the period 1996-97 to 2000-01 was in the range of 4.45 lakh to 8.95 lakh while the population reported as covered ranged between 7.36 lakh and 19 lakh. The population covered in Kottayam, Wayanad and Pathanamthittha districts during 1996-2001 was in the range of 2.27 to 8.2 *per cent*, 11.74 to 23.69 *per cent* and 5 to 11 *per cent* respectively. The annual reports on coverage of population prepared by DHS was thus highly inflated and the assessment of PR of leprosy based on inflated/nominal coverage of population could not provide the realistic instance of leprosy in the State.

[*] Projected population as per 1991 Census.
[**] 600 LIs/PMWs (600 x 5000) + 50 NMS (50 x 50,000) = 55,00,000.

(b) Defective calculation of prevalence rate

Method of calculation of PR was defective

The PR was to be worked out, based on the incidence of disease per 10 thousand population with reference to the population actually covered and new cases detected in a year. It was, however, noticed that the PR was calculated by the department by adopting the incidence as at the close of the year (number of new cases detected less the number of cases in which treatment was completed) for the whole population of the district and projecting this incidence to 10 thousand population resulting in unrealistic projection of PR. The classification[#] of districts as hyper endemic (5 districts), endemic (5 districts) and low endemic (4 districts) based on this unrealistic data was also incorrect. The PR worked out as per incorrect procedure and that calculated by department in respect of six districts test-checked indicated unrealistic projection of PR by the Department as shown below:

Classification of districts was defective

Sl. No.	District	Period	Range of PR as per department	Range of PR as per correct calculation
			PR per ten thousand	
1	Kottayam	1996-97 to 2000-01	0.40 to 2.59	10.90 to 57.78
2	Pathanamthitta	,,	0.51 to 2	4.58 to 22.43
3	Kannur	,,	0.5 to 2.4	2 to 4
4	Ernakulam	,,	1.1 to 1.6	2.16 to 4.86
5	Trivandrum	,,	2.42 to 3.77	6.52 to 10.70
6	Thrissur	,,	0.51 to 2	1.55 to 2.99

The SLO stated that the PR worked out by the department was realistic. The reply is not tenable as the PR was worked out based on inflated coverage of population and incorrect method of calculation.

3.2D.7 Functioning of Centres/Units

Improper functioning of ULCs/Centres

(a) On a test check of Schools and Centres under 6 districts, it was noticed that 4 ULCs and 2 SET centres were not functioning properly. The Non-Medical Supervisors were idling and did not produce any records relating to their activities (ULC Vaikom, Aluva, Muvattupuzha and ULC MCH[*], Thrissur). This indicated lack of supervision by DLO. The consultant appointed by Government of India who visited the ULC, Muvattupuzha had also criticised its functioning. Admitting the fact, DLO, Ernakulam stated that as the ULC was far away, frequent supervision was quite difficult and oral warning was given to the NMS for dereliction of duty. In ULC Vaikom, no clinic day[@] was observed. As the ULC, MCH Thrissur was functioning in rural area, only 3, 8,11 and 17 schools were surveyed during 1997-2001 out of the 25 schools allotted in urban area. Health education was not at all carried out in SET Parassala and Venpakal as only one day per month was utilised for health education in these centres.

Only 3 to 17 schools were surveyed annually in Thrissur urban area

Leprosy units not properly located for optimum coverage

(b) Even the available units were not properly located to have the maximum coverage. For the implementation of the programme, Kottayam district was divided into Kottayam zone and Kanjirappally zone. All the

[#] Hyper endemic if PR is greater than 5 per 1000 population, Endemic if PR is 3 to 5 per 1000 population and Low endemic if PR is less than 2 per 1000 population.
[*] Medical College Hospital.
[@] 2 days a week.

5 units (2 ULCs and 3 SET centres) were established in Kottayam zone only and no centre was functioning in Kanjirappally zone. Both the MLT units established in the district were functioning in the District Hospital, Kottayam in violation of GOI directions that each MLT unit should have separate headquarters so as to cover maximum Drug Distribution (DD) points. In Pathanamthitta district, one MLTU, which started functioning at Thumpamon was shifted to District Hospital, Kozhenchery where one ULC was already functioning, resulting in overlapping of coverage areas. No reason was furnished for such shifting of MLTU. In Kannur district, ULC Thalassery and LCU Thalassery were attached to Government Hospital, Thalassery and LCU Payyannur and ULC Payyannur were attached to Government Hospital, Payyannur resulting in overlapping of coverage areas. LCUs should have been located in rural areas only.

Four Reconstructive Surgery Units not established due to lack of manpower

(c) Four Reconstructive Surgery Units sanctioned by GOI were yet to be established (March 2001), as the required manpower has not yet been provided by the State Government. GOI accorded sanction to set up one Reconstructive Surgery Unit each in the NGO Sector. Though two voluntary organisations[#] came forward to set up the units, no proposal was sent to Government by the department for sanction of the units till date (March 2001). Non-establishment of the units has affected the treatment of deformity cases in the State.

Survey units to assess under-detection of new leprosy cases not sanctioned by the State

(d) GOI accorded sanction for the establishment of a Sample Survey Assessment unit in March 1997 for evaluating the work at various districts and to assess the extent of under-detection of new Leprosy cases. The matter was awaiting sanction of the State Government as of March 2001. The reason for not sanctioning the unit was not furnished by Government.

3.2D.8 Lack of infrastructure facilities

As per the norm fixed by GOI guidelines and considering the districts as endemic, the various units required and sanctioned by GOI and established by the State were the following:

Sl. No.	Name of unit/centre	Requirement	Target upto 2000-01 fixed by GOI	Achievement by the State
1.	DLU	14	12	11
2.	LCU/MLCU	64	26	26
3.	Supervisory Medical Urban Control Leprosy Units (SMUCL)	2	2	2
4.	ULC	67	51	50
5.	SET centres	1330	164	162
6.	Maintenance of voluntary beds	1500	1500	Nil[@]
7.	Sample Survey cum Assessment unit	1	1	Nil
8.	Reconstruction Surgery Units at Govt. level NGO level	 4 2	 4 2	 Nil Nil[&]
9.	Training Centres	1	1	1

[#] St.Johns Leprosy Eradication Centre & Rehabilitation Centre, Pirappancode, Thiruvananthapuram and German Leprosy Relief Society, Ranni.

[@] Not implemented.

[&] Commented in para 3.2.D7 (c).

Infrastructure created to cover the whole State under MDT was inadequate

Though the DHS/Government claimed that the whole State was brought under MDT* by the year 1995 the infrastructure sanctioned by GOI and created by the State Government was quite inadequate to cater to the needs of the whole State. The available number of LIs could cover only 31 *per cent* of population. The reasons for not sanctioning the required infrastructure by GOI was not furnished to Audit.

In Pathanamthitta, Kottayam and Wayanad districts, posts of Laboratory Technician were not sanctioned and this had resulted in non-conduct of bacteriological examination of skin smear. Such examination was also not carried out during 1998-99 to 2000-01 in SMUCL unit, General Hospital, Thiruvananthapuram due to non-availability of microscope. The duty of the Laboratory Technician attached to DL unit was to cross check 10 *per cent* of the skin smears examined by the other LC units on a random basis. Even though one Laboratory technician each was posted in Kannur and Ernakulam DLUs, no laboratory facilities were available in both the units and also there were no Laboratory technicians posted in control units in both the districts. The laboratory technicians in Kannur and Ernakulam DLUs were attending to other duties in PH laboratory, DMO, Kannur and PH laboratory, General Hospital, Ernakulam respectively.

3.2D.9 Lack of supervision and monitoring

For effective implementation of the programme, State level supervision, monitoring and evaluation were essential. However, no records were available in the office of the SLO about the field visits and other activities of SLO like conduct of half yearly review meetings to study the problems in the field, etc. Hence, the effectiveness of the functioning of the SLO could not be assessed by Audit.

The number of Relief From Treatment (RFT) cases deleted for reasons other than 'cured' were 3363 during 1996-2000. The department did not keep track of such cases though they might become a source of infection to others. This aspect was not considered by the Government and necessary instructions issued to carry out vigorous follow up in all such cases.

At the district level and unit level, the supervision was not effective. Three (Vaikom, Aluva, Moovattupuzha) out of 18 ULCs test-checked did not produce the necessary records for the assessment of their activities.

At Central level also, monitoring was ineffective as no explanation was called for, for non-furnishing of utilisation certificates by the DLS, Kannur to Government of India for the period 1996-97 to 1999-2000.

3.2D.10 Other points of interest

(a) A committee headed by SLO was to administer the Rehabilitation Fund for assisting the cured patients through self-employment venture. As of March 2001, applications for assistance from 232 cured patients were

* Multi Drug Therapy.

pending. Since 1995 no money was remitted to the Rehabilitation Fund. Thus, the rehabilitation of the cured patients had been adversely affected.

(b) As a measure of welfare activity GOI provided Rs 18000 per annum for endemic districts and Rs 42000 per annum for non-endemic districts to be utilised for the welfare of needy patients. Test-check revealed that six[&] DLOs did not take any action to utilise the amount and as a result Rs 8.42 lakh out of Rs 9.36 lakh received during 1995-96 to 2000-01, had remained in the bank account, resulting in non-accrual of benefits to the patients.

(c) Annual/periodical indents for medicines were not obtained by SLO from DLOs and no annual indents were placed by SLO to Director General of Health Services (DGHS) of Government of India and hence, medicines were supplied by DGHS without reference to the actual requirement resulting in excess supply of medicines. Test-check of the records of 10 offices revealed that medicines were supplied by DGHS to the State in excess of requirement resulting in retention of time expired medicines costing Rs 4.63 lakh in district offices and control units during the period January 1998 to February 2001. SLO stated that the medicines (ROM) were received without placing indent and only on opening the parcel, the short shelf life of the medicine came to notice.

(d) Though an amount of Rs 1.05 lakh was received by SLO in March 1995 from the DGHS for training on disability care to develop a team of officials at the district level, no training was conducted as of March 2001. The amount remained in Treasury Public account with District Treasury, Thiruvananthapuram in the name of SLO. The SLO stated that the matter was referred to DGHS for clarification.

(e) As per the report of Health Transport Officer (HTO), seven vehicles were allotted to DLO, Thiruvananthapuram. But DLO, Thiruvananthapuram stated that only one vehicle was under his charge and HTO could not produce the details of deployment of other 6 vehicles and due to non-production of relevant records, Audit could not verify whether they were used for the programme itself.

A vehicle procured for SLO in November 1984 had not been allotted to SLO as of March 2001. SLO stated that supervision and monitoring could not be made due to non-availability of vehicle.

The matter was referred to the State Tuberculosis Officer/Deputy Director of Health Services/Project Director (in-charge), Kerala State AIDS Control Society/State Leprosy Officer in July 2001. The matter was also demi-officially forwarded to the Secretary to Government. Replies have not been received (October 2001).

[&] Ernakulam, Kannur, Kottayam, Pathanamthitta, Thiruvananthapuram, Thrissur.