

5.4.1 HEALTH

India was one of the pioneers in the planning of health service with a focus on primary health care. Improvement in the health status of the population has been one of the major thrust areas of the social development programmes of the country. This was to be achieved through improving the access to and utilisation of Health, Family Welfare and Nutrition Services with special focus on under-served and under-privileged segments of population. The main responsibility for infrastructure and manpower building rests with the State Governments with funds from State Non-Plan and Plan supplemented by funds from the Central Government and external assistance. Over the last five decades a massive infrastructure has been created to provide Primary, Secondary and Tertiary level health care services to the urban and rural populations. Major disease control programmes and the Family Welfare Programmes are funded by the Centre (some with assistance from external agencies) and are implemented through the infrastructure of the State governments. The food supplementation programmes for mothers and children are funded by the State and implemented through the ICDS infrastructure funded by the Central Government. Safe drinking water and environmental sanitation are essential pre-requisites for health. Initially these two activities were funded by the Health Department, but subsequently the Department of Urban and Rural Development and the Department of Environment fund these activities both in the State and Centre. Technological improvement and increased access to health care have resulted in a steep fall in mortality but disease burden due to communicable diseases, non-communicable diseases and nutritional problems continue to be high. In spite of the fact that norms for creation of infrastructure and manpower are similar throughout the country, there are substantial differences between the States and districts in the same state in availability and utilisation of health care services and health indices of the population.

2. The Special Action Plan for Health envisages expansion and improvement of the health services to meet the increasing health care needs of the population; no specific targets have been set. Utilisation of health care facilities created at the primary, secondary and tertiary care level have resulted in a decline in overall mortality, but morbidity continues to be high. However, the Special Action Plan envisages improvement of the health services to meet the increasing health care needs of the population.

PRIMARY HEALTH CARE SERVICES

3. The primary health care infrastructure provides the first level of contact between the population and healthcare providers. Realising the importance of the primary health care infrastructure in delivery of health services, the States, the Centre and several agencies simultaneously started creating primary health care infrastructure and manpower. This has resulted in substantial amount of duplication of infrastructure and manpower; in spite of this there are under-served areas where the need for the health services are very great. The problem is mainly one of inequitable distribution of existing institutions and manpower as well as poor functional status due to:

- (i) mismatch between personnel and infrastructure;
- (ii) need for orientation and skill upgradation of personnel; and
- (iii) lack of appropriate functional referral system.

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4. The primary health care infrastructure created by the states in rural areas under the modern system of medicine include:

- Sub-centres 137271.
- Primary Health centres 22975.
- Community Health centres 2935.
- In addition in all states there are sub-divisional/Taluk hospitals.
- The Department of Family Welfare supports personnel in 5435 rural family welfare centres, and has created 871 urban health posts, 1083 urban family welfare centres, 550 district postpartum centres and 1012 sub-district postpartum centres.
- Under the Department of ISM&H there are 22,104 dispensaries, 2862 hospitals, 300 medical colleges.
- Municipalities provide urban health services.
- CGHS provides health care for Central Govt employees.
- Railways, defence and similar large Departments have their own hospitals and dispensaries for providing for the health care needs of their staff.
- PSUs and large industries have their own medical infrastructure.
- ESI provides hospital and dispensary based health care to employees.
- All hospitals - primary, secondary or tertiary care also provide primary health care services to rural and urban population.

5. The available data on health care infrastructure is given in Annexure 5.4.1.1. Over and above all these there are the voluntary organisations and the private sector providing health care.

6. It is important to take into account all these before estimating the gaps in infrastructure and manpower. It is possible to achieve substantial improvement in coverage and quality of health services by appropriately restructuring the existing infrastructure making them responsible for health care for the population in a defined geographic area. Similarly a substantial proportion of the manpower problems can be sorted out by appropriate reorientation and re-deployment of existing manpower.

Rural Primary Health Care Services

7. During the Ninth Plan there is an absolute and total commitment to improve access to and enhance quality of primary health care in urban and rural areas through an optimally functioning primary health care system. The Ninth Plan and Special Action Plan have given high priority for improving the functional status and efficiency of operation of the primary health care infrastructure by:

- Streamlining existing urban and rural primary health care institutions by appropriate reorganisation.
- Ensuring that all these institutions are made fully operational.
- Filling the gaps in Community Health Centres (CHCs) through re-structuring and strengthening existing block level PHC and Taluk, Sub-divisional hospitals.
- Providing need based manpower on the basis of distances, difficulties and work load.

- Providing essential equipment, consumables and drugs.
- Establishing functional referral linkages.

8. At the national level the total number of functional Sub centres and the PHCs nearly meets the set norms (one sub-centre for 3000-5000 population, one Primary Health Centre for 20,000-30,000 population) for the population in 1991. The requirement of primary health care infrastructure (as of 1991 population) and the current status of primary health care infrastructure is given in Table 5.4.1.1.

**TABLE 5.4.1.1
Rural Primary Health Care Infrastructure/Manpower**

Category of Centre	Requirement for 1991	Functioning as on 30.6.99	Gap/(Surplus)
Sub-Centre	134108	137271	(3163)
PHCs	22349	22975	(626)
CHCs	5587	2935	2652
ANMs At SC	134108	134086	22
Doctors At PHCs	22349	25506	(3158)
Specialists At CHCs	22348	3741	18724

Source: Ministry of Health and Family Welfare.

9. Even though a vast infrastructure has been created, it is functioning sub-optimally. The factors responsible for the sub-optimal functioning of rural Primary Health Care Institutions are:

- Multiple tiers of institutions which had been created at various times and are not organised to take care of health needs of defined population.
- Inappropriate location, poor access and poor maintenance;
- Gaps in critical manpower;
- Mismatch between personnel and equipment;
- Lack of essential drugs/diagnostics and poor referral linkages.

10. In spite of the fact that the norms for creation of infrastructure and manpower are similar throughout the country, there are substantial differences between states and between districts in the same state in the availability and utilisation of health care services and health indices of the population. Attempts are being made to minimise these gaps. It is a matter of concern that many of the districts with poor health indices do not have adequate health infrastructure.

11. In addition to the classical PHC, the States have a large number of rural hospitals and dispensaries in modern system of medicine and ISM&H. In addition to CHCs there are block level PHCs, Taluk Hospitals, Sub Divisional Hospitals & Sub District Postpartum Centres. The Ninth Plan envisages that all the states will restructure the existing rural hospitals/dispensaries as PHCs and existing sub-district taluk hospitals to CHCs so that gaps in infrastructure are minimised. Earmarked funds under BMS could be utilised for completing the restructuring and strengthening of these hospitals/dispensaries. Several states

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have initiated action to improve access to primary health care services. Some of the ongoing initiatives to improve access to Primary Health Care include:

- Strengthening/appropriately relocating Sub-centres/PHCs.
- Merger, restructuring, re-locating of hospitals/dispensaries in rural areas and integrating them with existing infrastructure.
- Restructuring existing block level PHC level PHC, Taluk, Sub-divisional hospitals-states such as Himachal Pradesh have already undertaken this.
- Utilising funds from BMS, ACA for BMS and EAP to fill critical gaps in manpower and facilities.
- District level walk-in interviews for appointment of doctors of required qualifications for filling the gaps in PHC - States like Madhya Pradesh and Gujarat have reported limited success.
- Use of mobile health clinics - Orissa, Delhi.

12. Currently, in addition to funding through the earmarked basic minimum services in the State Plan Budget, funding from Additional Central Assistance under PMGY externally assisted projects for strengthening health infrastructure and centrally sponsored programmes in Health and Family Welfare provide funding for strengthening infrastructure, covering critical gaps in manpower, equipment, consumables and drugs. Under PMGY, an allocation of Rs.2500 crore has been provided to the states for five sectors comprising primary health, primary education, shelter, drinking water and nutrition. A minimum of 15 per cent of this allocation is to be spent by the states on each of the five sectors. However, the states do have the flexibility to determine the utilisation of the remaining 25 per cent of funds. Funds from PMGY under primary health care may be utilised for strengthening of existing and functioning primary health care institutions (50 per cent) by procurement of drugs and essential consumables and contingency for travel costs for ANMs, repair of essential equipment, repair/replacement of furniture and 50 per cent for strengthening, repair and maintenance of infrastructure in sub-centres, PHCs and CHCs (priority will be given to ensure portable water supply, adequate toilet facilities and waste management).

13. Poor maintenance and consequent deterioration of the buildings and equipment has been a major factor responsible for sub-optimal functioning. Many states are unable to provide funds for these critical activities from Non Plan funds. Under the Reproductive and Child Health Care Programme, Rs.10 lakh per district has been released to the states for minor repair and maintenance of buildings, especially for operation theatres, labour rooms and for improvements in water and electric supply. Rs.10 lakh per CHC/district hospital is also released to all states for major civil works to improve facilities for essential obstetric services through construction/repair of operation theatre, labour room/or to provide/improve facilities for water/electric supply in PHCs, CHCs & district hospitals. A total of Rs.49 crore for minor civil works and Rs.21 crore has been released in the Ninth Plan upto 1998-99.

14. In order to improve the primary health care services, it is important that:

- Construction activity is to be taken up only when it is absolutely necessary.
- High priority to be accorded to filling the reported large gap in the vital CHC/FRU by re-designation and strengthening, providing appropriate equipment, consumables and drugs required.

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- Retraining and skill upgradation of male workers in vertical programmes and their redeployment as male multi-purpose workers.
- Mismatches be corrected between infrastructure/equipment and manpower to make institutions fully functional.

15. Planning Commission and Ministry of Health and Family Welfare have developed a proforma for monitoring this process and its impact on utilisation of services. States have been given the proforma and have been requested to send the Annual Progress report.

Health Manpower In Rural Primary Health Care Institutions

16. The number of doctors in PHCs at the national level exceeds the requirement as per the norms. However, there are marked differences in their distribution. The PHCs without doctors and paraprofessionals are mostly located in remote areas where health care facilities provided by the voluntary or private sector are also limited. Some of the innovative approaches to fill the vacancies in under-served areas currently being tried in some States include local recruitment of doctors, if necessary on part-time basis; adoption of a village/PHC/district by industrial establishments, cooperatives, self-help groups and charitable institutions; permitting local practitioners to pay a rental and practice in the PHCs after OPD hours. The usefulness of these approaches is being assessed. As a substantial proportion of specialist posts even in functional CHCs are vacant, these CHCs are unable to function as First Referral Units (FRUs). It is necessary to ensure that specialists are available in the CHCs so that referral patients and those requiring emergency care receive the treatment they need. There are gaps in some of the critical paraprofessional personnel such as lab technicians and male multi-purpose workers. Efforts are under way to provide the required posts of lab technicians under various CSS to fill the gap within this plan period. The number of sanctioned posts of male multi-purpose workers is only half the number required. This has been cited as one of the major factors responsible for the sub-optimal performance in health sector programmes. There are large numbers of male workers employed in the malaria, leprosy and TB Control programmes. They have to be given appropriate retraining and skill upgradation, redeployment as male multi-purpose workers and given the responsibility of looking after all health and family welfare programmes in the area covered by their sub-centres. Funds for these activities are available under States Annual Plan Health Sector Basic Minimum Services (BMS) Outlays, for BMS and Externally Aided Projects; some of the states have state specific Externally Assisted Projects to improve primary health care infrastructure/manpower.

Urban Primary Health Care Services

17. Nearly 30 per cent of India's population lives in urban areas. There is either non-availability or substantial under utilisation of available primary care facilities along with over-crowding at secondary and tertiary care centres. There is a plethora of personnel and beds in public, private, voluntary agencies but these are not geographically linked with clear assignment of responsibilities or referral linkages. The innate difficulty in restructuring of infrastructure is that there are multiple funding agencies.

18. Nagar Palikas, State Governments, Central Ministries and EAPs provide funding for building, upgradation and re-structuring urban primary health care infrastructure and establishing effective linkages. Earmarked funds under BMS and the ACA for BMS, funds from the urban RCH project and from urban component of IPP project can be utilised for the

development of urban primary health care. Planning Commission has provided an ACA of Rs.1.5 crore for strengthening of urban health care services in Municipal Council, Malgaon, Nasik district, Maharashtra in Annual Plan 1999-2000. Though there are several small success stories, the progress in the overall task of restructuring, reorganising the urban primary health care linked to secondary and tertiary care and appropriate retraining and redeployment of personnel has been very slow.

Tribal Areas

19. The population coverage norms for primary health care institutions is 1 PHC per 20,000 population, 1 SC for 3000 population in hilly/tribal areas as against 1 PHC per 30,000 population and 1 SC for 5000 population for the general rural population, in view of distances and sparse population. There are at present 20,799 SCs, 3,306 PHCs and 469 CHCs in tribal areas; in addition there are 1122 Allopathic dispensaries, 120 Allopathic hospitals, 78 Allopathic mobile clinics, 1106 Ayurvedic dispensaries, 24 Ayurvedic hospitals, 251 Homeopathic dispensaries, 28 Homeopathic hospitals, 42 Unani dispensaries, 7 Siddha dispensaries functioning in tribal areas. Similarly, 16,845 SCs, 5987 PHCs & 373 CHCs have been established in Scheduled Caste Basties/Villages having 20 per cent or more SC population; another 980 Allopathic dispensaries, 1042 Ayurvedic dispensaries, 480 Homeopathic dispensaries and 68 Unani/Siddha dispensaries are functioning in schedule caste concentrated areas.

20. Most of the Centrally Sponsored Disease Control Programmes have a focus on tribal areas. Under the NAMP 100 identified districts which are predominantly tribal in Andhra Pradesh, Bihar, Gujarat, Madhya Pradesh, Maharashtra, Orissa and Rajasthan are covered. Several States have had successful experiments in improving primary health care to Tribals:

- Andhra Pradesh - Committed, Government persons running health facilities in tribal areas.
- Orissa - ACA for mobile health units with fixed tour schedule. Problem Expensive, difficult to replicate.
- Karnataka, Maharashtra - NGO `adopting' and running PHCs in Tribal areas.
- Success is mainly due to commitment of individuals and credibility of NGOs.

21. The problems with such experiments are that the initiatives and commitment of key individuals are responsible for success and they are difficult to replicate in a vast system. A new scheme titled Medical Care for Remote and Marginalised Tribal and Nomadic Communities has been initiated in the Ninth Plan. Under this scheme, a research project on `Intervention Programme for Nutritional Anaemia and Haemoglobinopathies amongst some primitive tribal population of India' has been initiated by ICMR.

SECONDARY HEALTH CARE

22. The secondary health care infrastructure at the district hospitals and urban hospitals are currently taking care of the primary health care needs of the population in the city/town in which it is located and also act as secondary care centres; this inevitably leads to overcrowding and under utilisation of the specialised services.

23. Strengthening secondary health care services is an identified priority in the Ninth Plan. In addition to the provision of funds from State Plan, several States have been seeking External Assistance to build up FRU/District Hospitals. So far six States have initiated such projects with external assistance from the World Bank. The States have initiated construction works, procurement of equipments, ambulances and drugs; improvement in services following training to improve skills in clinical management, attitudes and behaviour of health care providers, reduction in vacancies and mismatches in health personnel/infrastructure and improvement in Hospital Waste Management, disease surveillance and response system have been reported. All the six States have attempted introduction of user charges for diagnostics and therapeutics from people above the poverty line. Initial problems have been sorted out. Some States are still unable to ensure retention of collected charges in the same institute. This problem need be speedily resolved.

TERTIARY HEALTH CARE

24. Majority of the tertiary care institutions in the governmental sector lack adequate manpower and facilities to meet the rapidly growing demand for increasingly complex diagnostic and therapeutic modalities. On the other hand, there is overcrowding in tertiary care hospitals due to a lack of a referral system from primary and secondary care levels. There is a need to optimise facilities in the tertiary care centres. The Ninth Plan priorities for tertiary care centres includes provision of funds for capacity building, levying user changes to people above poverty line and exploring alternative modalities to meet the growing cost of care. Several States (e.g. Rajasthan, Uttar Pradesh) are trying out innovative schemes to give greater autonomy to these institutions, allowing them to generate resources and utilise them effectively. Some States e.g. Rajasthan and Kerala have been levying user charges and attempting to utilise the funds to improve hospital services.

DEVELOPMENT OF HUMAN RESOURCES FOR HEALTH

Health Manpower Production

25. India produces over 17,000 medical graduates annually; two-thirds of them go in for postgraduate training. The existing facilities for training of medical graduates have outstripped the needs. In view of this the Medical Council Act was amended in 1993 to ensure that “no person shall establish a medical college and no medical college shall open a new or a higher course of study or training including a post graduate course of study or training or increase in its admission capacity in any course of study or training without the prior permission of the Central Government”. After the enactment of the Amendment Act, 1993, the Central Government have permitted establishment of 18 medical colleges, 13 in the private sector and five in the Government sector.

26. It is well recognised that there is a dearth of paraprofessional personnel. Paraprofessionals are trained in three categories of training institutions: existing Government institutions, private institutions and as a part of 10+2 vocational training. There is an urgent need to ensure uniformity in the training curriculum and improvement in quality of paraprofessional training. In view of the substantial differences between districts in terms of paraprofessional manpower required there is a need to assess paraprofessionals required in each district and take steps for training them, preferably through the 10+2 vocational stream. This would ensure that the needs of the district are taken care of and that the posts do not lie vacant as the persons recruited are from the same area.

27. Unlike health service planning, health manpower planning in India has not received adequate attention. There has been very little attempt to assess the requirement in manpower and to match health manpower production with requirement. At the moment only infrastructure and manpower at the primary health care institutions are monitored and information periodically updated. There is no mechanism for obtaining and analysing information on health care infrastructure and manpower in the private and voluntary sectors in the district. Unless this information is available it will not be possible to undertake any effective area-specific microplanning so that the health manpower required to meet the local health needs of the population is provided. As a first step, in order to create such a data base a Standing Technical Advisory Committee has been set up under the Chairmanship of Director General of Health Services; the Central Bureau of Health Intelligence (CBHI) has been entrusted with the task of compiling the data on rural and urban primary, secondary and tertiary health care infrastructure and manpower in the private, voluntary, industrial, governmental and other sectors. The progress in this effort is very slow.

Continuing Education For Health Professionals

28. Continuing education to update the knowledge and skills of all health professionals is important in the context of evolving technology, demographic transition, changing lifestyles and disease patterns. Currently Continuing Medical Education (CME) to physicians is provided through in-service training programmes in various institutions including National Academy of Medical Sciences, National Board of Examinations and various professional bodies and associations. In addition, major disease control and family welfare programme undertake skill upgradation and programme orientation training of physicians and paraprofessionals.

29. During 1999-2000, 15 CME programmes have been held and 24 programmes have been finalised by the Medical Council of India; financial assistance has been provided by National Academy of Medical Sciences (NAMS) for 30 Seminars/Workshops. Two national workshops on Development of Standards in Nursing practice and performance appraisal in clinical practice were conducted by the Department of Continuing Education of the Raj Kumari Amrit Kaur College of Nursing during 1999-2000.

CONTROL OF COMMUNICABLE DISEASES

30. Even though health is a State subject, the Central Government has over the last forty years provided additional funds through Centrally Sponsored Schemes (CSS) for control of some of the major communicable diseases. These disease control programmes are continuing in the Ninth Plan period. External assistance has been obtained to augment available national funds for implementing these programmes.

National Anti Malaria Programme (NAMP)

31. The National Malaria Control Programme, the first of the Health Sector Centrally Sponsored Scheme aimed at reduction of morbidity and mortality due to malaria was launched in 1953. Spectacular success was achieved under the National Malaria Eradication Programme (NMEP) which brought down the incidence of malaria to 0.1 million cases with no deaths by 1965. However, after 1965, there was a resurgence of malaria and the NMEP initiated a modified plan of operation. The incidence of malaria came down to 2.18 million

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in 1984. Since then, the number of cases has remained at over 2 million over the last two decades.

32. In the Ninth Plan period, the National Anti-malaria programme has intensified malaria control activities and overcome the deficiencies that have been identified in the programme. The programme aims at intensive and effective implementation of the modified plan of operation in the seven North Eastern States, 100 districts spread over the States of Andhra Pradesh, Bihar, Gujarat, Madhya Pradesh, Maharashtra, Orissa and Rajasthan and in 19 cities/towns which have a rising slide positivity rate and in areas where there have been focal outbreaks of malaria during the previous year. Funds have been obtained from the World Bank for augmenting the national funds available for implementation of the programme. The programme was operationalised in 1998. The components of the Modified plan of Operation includes early diagnosis and prompt treatment; selective vector control and personal protection; prediction, early detection and effective response to outbreaks and IEC.

33. The performance of NAMP is given in Table 5.4.1.2.

TABLE 5.4.1.2
National Anti Malaria Programme

Year	B.S.E. (In Million)	Positive Cases	P.F. Cases	A.P.I (In 1000)	Aber Per cent	S.P.R Per cent	S.F.R Per cent	No. of Deaths
1996	91.54	3.04	1.18	3.48	10.49	3.32	1.29	1010@
1997	89.45	2.66	1.01	3.01	10.11	2.97	1.13	879
1998 *	86.26	2.15	0.93	2.37	9.51	2.49	1.08	658
1998 **	49.83	0.91	0.38			1.84	0.76	221
1999 **	47.95	0.88	0.39			1.84	0.81	373

Provisional

** Comparative data for 1999 with corresponding period of 1998, as per reports received from States upto 25th October 1999.

@ Out of 1010 deaths, 926 are confirmed and 84 suspected deaths. This does not include 1794 fever related deaths from Haryana.

Financial Scenario

(Rs. lakh)

Year	Outlay	Expenditure (RE)
Eighth Plan	42500.00	59106.55
1996-97	14500.00	14366.76
Ninth Plan	100000.00	
1997-98	19000.00	14352.00
1998-99	29700.00	16393.97
1999-2000	25000.00	

Source: Annual Report 1999-2000, Ministry of Health and Family Welfare

34. Spraying of insecticides is carried out to protect the population from transmission of malaria. Every year targets for spraying of insecticides is worked out in respect of each state on the basis of epidemiological data. Areas having API 2 and above during the

preceding three years are covered by residual insecticide spray to interrupt transmission. Spray coverage during 1998 was around 60 per cent in 1998 in the States of Arunachal Pradesh, Assam, Gujarat, Haryana, Jammu & Kashmir, Meghalaya, Mizoram, Tripura, UP, Chandigarh and Daman & Diu. Over 168 million people were targeted to be covered by residual insecticide spray in 1998-99 but only 79.26 million could be covered. The technical target for insecticide operation for 1999-2000 was to cover 171.40 million people. The introduction of dedicated mosquito nets has been initiated on a pilot basis in four districts in different eco-epidemiological conditions. For controlling malaria in urban areas, the urban malaria scheme was launched in 1971. Passive surveillance and anti larval measures are the main components of the urban malaria scheme. All towns having more than 40,000 population are to be covered; so far the scheme has been implemented in 132 towns. During 1998, 158890 cases of malaria were reported as compared to 174101 cases during 1997. During 1999 upto October, 158433 cases have been reported. The Programme is being monitored regularly by the Directorate of the National Anti-Malaria Programme through routine epidemiological and insecticidal spray reports as well as through review meetings with State Programme Officers.

35. The following constraints have been reported in implementing the programme:
- (i) Development of resistance of malarial parasites to chloroquine.
 - (ii) Creation of malariogenic condition by construction and development projects.
 - (iii) Shortage of staff particularly at the field/PHC/Laboratory levels.
 - (iv) Frequent shifting of programme officers both at State Headquarters and Zonal levels.
 - (v) Due to budgetary constraints, many State Governments are reluctant to meet the operational expenses for spraying of insecticides etc. and for the cost of freight of insecticides supplied by the Central Government, resulting in inadequate and irregular spraying operations.

Kala-Azar

36. Kala-azar is endemic in 36 districts of Bihar and 10 districts of West Bengal. Periodic out breaks of Kala-azar with high morbidity and mortality continue to occur in these States. Over 90 per cent of the reported cases and over 95 per cent of the reported deaths are from Bihar. Over two-thirds of the cases in Bihar are reported from seven districts. The number of cases and deaths Kala-azar is given in Table 5.4.1.3.

**TABLE 5.4.1.3
Kala-Azar Deaths And Cases**

Year	Cases	Deaths
1996	27049	687
1997	17429	255
1998	13542	221
1999 (till August)	6694	220

37. There has been a decline in both Kala-azar cases and deaths in spite of inadequacy of the insecticidal spray operations and poor outreach of diagnostic services. It is important to ensure timely insecticidal spray, early detection and prompt treatment of Kala-azar patients so that achievements gained are sustained.

Revised National Tuberculosis Control Programme (RNTCP)

38. Tuberculosis is a major public health problem in India. It is estimated that there are about 14 million cases of active tuberculosis. Of these 3.5 million are highly infectious sputum positive tuberculosis cases. With the HIV-TB co-infection the incidence of tuberculosis may increase significantly from the current 1.8 per thousand. The National Tuberculosis Control Programme (NTCP) has been in operation since 1962 as a Centrally Sponsored Scheme. Currently 446 district tuberculosis centres exist in the country. In addition, there are 47,600 TB beds for serious cases in the country, 330 TB clinics in urban areas and 17 State TB demonstration centres. In spite of the availability of effective chemotherapy during the last three decades, the programme has not succeeded in bringing down the disease burden because of low case detection, case holding and cure rates.

39. A major review of NTCP was undertaken during the Eighth Plan to identify inadequacies in the ongoing programmes and suggest remedial measures. Based on the review, a Revised National Tuberculosis Control Programme (RNTCP) was drawn up. External assistance has been obtained from the World Bank to augment the resources available for implementation of the programme in a phased manner. In the Ninth Plan the priorities are as follows: (a) RNTCP will be implemented in 102 districts (b) NTCP will be strengthened in 203 SCC districts as a transitional step to adopt the RNTCP (c) standard regime will be strengthened in the remaining non SCC districts and (d) central institutions, state TB cells and state TB training institutions throughout the country will be strengthened.

40. The targets for the Ninth Plan are: (1) to enhance case detection to at least 70 per cent of the estimated incidence (2) improve cure/completion of therapy rates to 85 per cent amongst smear positive patients of tuberculosis in 102 districts implementing RNTCP and 60 per cent cure rates in 203 SCC districts (3) to reduce the proportion of smear negatives detected under the programme to 50 per cent or less of the total cases (4) to improve the aggregate smear positivity rate at least to 50 per cent and (5) to ensure that the number of TB suspects tested for smear examination is not less than 2.5 per cent of the general OPD attendance of the peripheral health institutions and number of smears examined is at least three per suspected patients. The programme has been operationalised in 1998.

41. The components of the programme are:

- (i) Diagnosis through sputum microscopy of patients attending peripheral health facilities at all levels.
- (ii) Uninterrupted supply of drugs (SCC drugs are given in patient wise boxes) by the Centre.
- (iii) Direct observation of treatment through involvement of peripheral health functionaries, NGOs and community volunteers in the DOTS districts.
- (iv) Systematic monitoring, evaluation and supervision at all levels.

42. The performance under the NTCP is shown in Table 5.4.1.4. At the national level sputum examination has been approximately 30 per cent of the target in 1997-98 and 1998-99. In 1999-2000 although there has been some improvement it is still only 50 per cent of the target. There were delays in initiation of RNTCP. The Department of Health is trying to widen coverage taking advantage of funds available.

**TABLE 5.4.1.4
National Tuberculosis Control Programme**

Year	Sputum Exam.		Sputum Positive		Total New Cases	
	Target	% Achievement	Target	% Achievement	Target	% Achievement
1997-98	14189175	31.84	472980	74.41	1277026	102.56
1998-99	14189175	27.44	472980	68.06	1277026	97.84
1999-2000	4884840	**50.98	488480	*46.38		
2000-2001	4985650		498570			

** Upto December, 1999

* No. of patients (3 smears/ patients)

Performance Of RNTCP Case Finding (1999)

Population covered by 31.12.99 (Lakh)	Total Cases Treated (1999)	New Smear +ve cases treated (1999)	Ratio new smear-; St patients (1999)	Conversion new S+
1381	136404	52774	0.8	86%

Financial Scenario

Year	Outlay	Expenditure
Eighth Plan	8500.00	19442.00
1996-97	6500.00	4180.00
Ninth Plan	45000.00	
1997-98	9000.00	3205.00
1998-99	12500.00	7211.00
1999-2000	10500.00	9500.00

43. Under RNTCP more than 35,000 health staff have been trained. Population of 200 million in 16 States/UTs have been covered. More than 2,50,000 patients have been put on treatment. Even in the RNTCP districts the total smear positive treated is only about 39 per cent of the total cases treated. The utilisation of funds under the programme has also been poor in the Ninth Plan period.

44. The RNTCP is being monitored at all levels. The Central TB Division has been strengthened to cope with the expansion of the programme and its monitoring. In co-ordination with WHO, local supervisors have been hired to work under the direction of Central Government/respective State Governments to ensure effective monitoring and implementation. Periodic visits to States/UTs to for programme review are carried out by the officers from Department of Health and the Central TB Division. A joint review of the programme was undertaken by Government of India and WHO in February, 2000. The review assessed the technical performance of the programme and recommended further phased expansion of the programme.

45. Funds have been released to State and District TB Societies for procurement of four wheelers and two wheelers along with provision of POL to make the supervisory staff more mobile. District TB Societies and State TB Societies have also been strengthened. The Department of Health has also initiated a DFID assisted project covering the entire State of

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Andhra Pradesh. The project components include strengthening of Central TB Division, training activities besides implementation of RNTCP. External assistance has also been obtained from DANIDA to implement RNTCP in 14 tribal districts of Orissa. Presently 13 districts are being covered in a phased manner. It is proposed to cover a population of 400 million under the World Bank (WB) Project and about 100 million under DANIDA and DFID projects by 2002.

National Leprosy Eradication Programme

46. The National Leprosy Eradication Programme was launched as a 100 per cent Centrally funded CSS in 1983 with the goal of arresting disease transmission and bringing down the prevalence of leprosy to 1/10000 by 2000 AD. With MDT there has been a sharp reduction in the prevalence of leprosy from 57/10000 in 1981 to 4.5 by March, 2000 (P). While the endemic states of Andhra, Tamil Nadu and Maharashtra have shown a steep decline in the prevalence, prevalence in states like Bihar (10.6), Orissa (10.48), West Bengal (7.9), Uttar Pradesh (6.02) and Madhya Pradesh (6.7) continue to be high. Earlier 50 per cent of the cases were in Andhra Pradesh and Tamil Nadu. Now 70 per cent of the cases requiring treatment are in Uttar Pradesh, Madhya Pradesh, Bihar, Orissa and West Bengal. The performance under NLEP is shown in Table 5.4.1.5.

TABLE 5.4.1.5
National Leprosy Eradication Programme

Year	Case Detection		Case Treatment		Case Discharge	
	Target	% Achievement	Target	% Achievement	Target	% Achievement
1996-97	218240	221.11	218240	208.65	474200	102.41
1997-98	323640	162.08	323640	161.39	431615	127.42
1998-99	323640	241.97	323640	230.65	652400	109.56
1999-2000(P)	286365	172.23	286365		611666	

Financial Scenario

(Rs. lakh)

Year	Outlay	Expenditure/RE
Eighth Plan	14000.00	30328.00
1996-97	7400.00	6533.00
Ninth Plan	30100.00	
1997-98	7900.00	7828.00
1998-99	7900.00	7818.00
1999-2000	8500.00	8200.00

47. An independent evaluation carried out in April, 1997 recommended that:

- (i) Modified Leprosy Elimination Campaign should continue.
- (ii) Reorganisation and integration of Leprosy Programme into existing Health Care System should be continue

48. Phased integration of the programme into the existing health care service at primary, secondary and tertiary care level in all states has been recommended. The

integration will be attempted last in the States which are currently having high prevalence of leprosy. The leprosy training institutes will provide orientation training to all categories of staff and assist in rapid horizontal integration of the leprosy programme.

49. The contract staff working under the programme may require skill upgradation/retraining and redeployment. NGOs and the Department of Social Welfare will play a pivotal role for evolving and implementing innovative strategies for vocational rehabilitation, socio-economic rehabilitation, re-constructive surgery, training, IEC and other innovative activities.

Modified Leprosy Elimination Campaign

50. Modified Leprosy Elimination Campaign aimed at detection of unidentified cases of leprosy in the community was taken up first in Tamil Nadu in 1997 and then implemented during 1997-98 in Maharashtra, Orissa, Gujarat, Jammu Division of J&K and Daman & Diu. The programme was extended to all the districts during 1998-99. Large number of General Health Care staff were provided. The first round of orientation on leprosy and public awareness activities were undertaken in the State, district and peripheral levels giving emphasis on inter-personal communication. During the six day campaign 4.6 lakh cases were detected and put on treatment.

**TABLE 5.4.1.6
New Cases Detected By MLEC And PR Before And After MLEC (1998-99)**

Population in Lakh		No. of Suspect Cases	No. of Confirm Cases	No. of Single Lesion	PR Before MLEC	PR After MLEC	% Increase in PR
Enumerated	Examined						
8209.67	6448.71	2858267	454290	53115	4.75	10.02	110.95

51. During the year 1999-2000, the 2nd round of MLEC has been implemented in all the States except in Delhi, Andaman & Nicobar and Dadra & Nagar Haveli. Under 2nd MLEC case detection was through rapid survey for six days in five High Endemic States, and detection was through two days Voluntary Reporting at health centres where doctor is available in the remaining seven major States. In the remaining States, the focus was on orientation of staff, IEC for General Public to encourage suspected cases to report to all the CHCs, PHCs and hospitals for free diagnosis and treatment. During the 2nd MLEC 2.10 lakh new patients have been detected. There has been a decline in the number of confirmed cases in 2nd MLEC.

52. It is important to carefully train the health manpower in existing primary health care system in prevention of leprosy and early detection, management and rehabilitation of leprosy patients. Some of the evaluation studies indicate that during NLEC there was both over diagnosis and under diagnosis in some districts as the detection was done by a large number of persons who were recently trained. However this campaign provided a mechanism for involving the entire health services and had paved the way to the progressive integration of leprosy care within the health service infrastructure.

53. Careful supervision and monitoring of the performance of the programme and process of integration are essential for achieving the goal set in the Ninth Plan. Since the World Bank supported NLEP project was to be completed in March 2000, the project has

been given a six month extension upto September 2000 in order to prepare for the second phase project to complete the remaining task of elimination in all the States/UTs within the next three years. Sikkim, Nagaland, Punjab, Haryana, Tripura, Mizoram, Meghalaya States have achieved the target of elimination of leprosy; another seven States are likely to achieve it soon. For the remaining States, the target has been extended to 2003.

National AIDS Control Programme (NACP)

54. The National AIDS Control Programme (NACP) was initiated in 1992 as a 100 per cent Centrally Sponsored Scheme. Right from its inception the programme has operated through the existing health care system at various levels. Available data indicated that HIV infection exists in all the States both in urban and rural areas. The apparent differences between States/districts/cities might to a large extent be due to differences in the type and number of persons screened. Over the last decade there has been a progressive rise in prevalence of infection in all groups.

55. There had been problems and delays in implementation of the programme in many States. Sentinel surveillance which is an essential component for assessing prevalence of infection in different States and forecasting the future course of the epidemic in the country was not carried out according to protocol in most States. Despite the various shortcomings of Phase I of the programme, the prevalence of infection has been low as compared to many other countries.

56. NACP Phase II funded by Government of India, State Governments, World Bank, DFID and USAID has been initiated in Oct. 1999. The Project has the following five components:

- Reducing HIV transmission among the poor and marginalised section of the community at the highest risk of infection by targeted intervention, STD control and condom promotion;
- Reducing the spread of HIV among the general population by reducing blood based transmission and promotion of IEC, voluntary testing and counselling;
- Developing capacity for community based low cost care for people living with AIDS;
- Strengthening implementation capacity at the National, States and Municipal Corporations levels through the establishment of appropriate organisational arrangements and increasing timely access to reliable information; and
- Forging inter-sectoral linkages between public, private and voluntary sectors.

57. The performance under NACP is given in Table 5.4.1.7. So far 9966 cases of AIDS have been reported till 1999. It is imperative to build up:

- epidemiological data on time trends in the disease.
- details of the specific interventions based on epidemiological data.
- mechanisms for estimating requirements, unit costs, total costs.
- process and impact indicators to monitor the progress in interventions.
- baseline figures and target to be achieved by the end of the project.

TABLE 5.4.1.7
Aids Control Programme - All India (Cumulative)

Year	No Screened (ooo)	Sero-Positive (000)	AIDS Cases	Sero-Positivity Rate (per 1000)
1996	2937	49527	3161	16.8
1997	3227	71400	5145	22.1
1998	3413	82391	6693	24.1
1999	3572	92312	9966	25.8

Year	Zonal Blood Testing Centres	Blood Testing Centres	STD Clinics	Blood Bank Modernised	Sentinel Sites
1996	154	62	504	743	55
1997	154	62	504	815	55
1998	154	131	504	815	180
1999	154	135	504	815	180

Financial Scenario

(Rs. lakh)

Year	Outlay	Expenditure/RE
Eighth Plan	28000.00	27538.00
1996-97	14100.00	11441.00
Ninth Plan	76000.00	
1997-98	10000.00	12301.00
1998-99	11100.00	10800.00
1999-2000	14000.00	*1325.00

* Provisional

58. There are at present 131 blood testing centres and nine reference centres. A sentinel surveillance system has been set up; 180 sentinel sites have been established to monitor the trends of HIV infection in various groups of population. For blood safety, mandatory licensing of the all blood banks has been carried out. One hundred and fifty four Zonal Blood Testing Centres where HIV testing facilities are available have been established, 815 blood banks in public and voluntary sector have been modernised and 40 blood component separation facilities have been established.

59. As per the directives of the Supreme Court, National Blood Transfusion Council at the national level and State Blood Transfusion Council at the State/UT level have been constituted. Professional blood donation has been abolished w.e.f. January 1, 1998; voluntary blood donation is promoted. Percentage of infection transmitted through blood has registered a fall from 8 per cent to 5 per cent during the project period.

60. The programme has also strengthened existing STD Control Programme through provision of essential equipment to 504 STD clinics, financial assistance for STD drugs and other consumables and also for training of staff. Financial allocations have been made to States/UTs for strengthening of Management of RTI/STI in all district level female hospitals

in the country. Five regional STD centres were upgraded to conduct training, research, supervision and monitoring. The guidelines for syndromic management and treatment of STDs were revised. 18,588 Government Medical Officers and 10,000 private health care physicians were trained in syndromic management of STD cases. In the area of condom promotion, emphasis is on social marketing, quality control of condoms was improved and condoms were included in schedule R of the Drugs and Cosmetics Act.

Disease Surveillance And Response

61. Establishment of a functioning system for early detection and prompt response for rapid containment and control of the disease has been identified as one of the high priorities in the Ninth Plan period. The Department of Health has initiated a pilot project in 20 districts for a period of two years to develop a model disease surveillance system at district level. If found feasible, the States could initiate and implement disease surveillance system based on this model to ensure early detection, prompt response and control of outbreaks at district level and develop effective linkages with existing facilities and expertise for epidemiological support and laboratory back-up at identified State level institutions/medical colleges. Disease surveillance is also one of the components of the on-going Health Systems Project in many states; specific on-going programmes for control of communicable disease has a component of disease surveillance. Surveillance for polio is being intensified under the Family Welfare Programme. These efforts need to be integrated.

Hospital Waste Management

62. Increasing incidence of hospital-acquired infections and accidental infection in health care providers and waste disposers, renders it imperative that efforts are made to improve infection control and waste management through utilisation of appropriate, affordable technology at all levels of health care. During the Eighth Plan Planning Commission had published a report of the High Powered Committee on Urban Solid Waste Management; one of the issues in the report was hospital infection control. As a follow up Planning Commission had provided ACA to NCT of Delhi for a pilot project in hospital waste management in a tertiary health care institution complex at the end of the Eighth Plan period, which could be replicated in other States. Several States are incorporating the Hospital Waste Management as a part of their Health Systems Project. Funds under the PMGY can be utilised for strengthening hospital infection control and waste management in primary health care institutions.

National Programme For Control Of Blindness

63. National Programme for Control of Blindness (NPCB) was launched in the year 1976 as a 100 per cent centrally sponsored programme with the goal of reducing the prevalence of blindness from 1.4 per cent to 0.3 per cent of population by 2000 AD mainly through cataract surgery as Cataract accounts for 80 per cent of blindness. A World Bank assisted Blindness Control Project was launched in 1994 to reduce the prevalence of cataract blindness in 7 States, where prevalence of blindness was higher than the national average of 1.49 per cent. Though there was substantial increase in cataract surgery, the progress was well below the target set.

64. Facilities surveys and collection of data for rapid assessment on cataract blindness load were carried out in seven selected institutions during December 1997 to February 1998

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in two districts in each of the seven project States. Briefly, this survey revealed the following:

- (i) There is evidence of reduction in the prevalence of blindness in the Project States.
- (ii) The quality of care, as assessed by reduction in failure rate, has improved significantly.
- (iii) Proportion of IOL surgery has been on the rise since the inception of the Project.
- (iv) The coverage of services has improved (about 50 per cent persons and 70 per cent eyes).
- (v) Utilisation of services by women has increased.
- (vi) There is some reduction in proportion of operations performed in eye camps.

65. The performance under the NBCP in the Ninth Plan is shown in Table 5.4.1.8.

TABLE 5.4.1.8
National Blindless Control Programme

Unit	1997-1998		1998-1999		1999-2000	
	Target	% Achievement	Target	% Achievement	Target	% Achievement#
Cataract Operations (lakh)	30.00	101.00	33.00	100.00	35.00	96.29
% IOL implantation	20.00	110.00	25.00	*140.00	30.00	153.33

* In World Bank Project

Provisional

Financial Scenario

(Rs. lakh)

Year	Outlay	Expenditure/RE
Eighth Plan	10000.00	19297.00
1996-97	7500.00	5858.00
Ninth Plan	44800.00	
1997-98	7000.00	5834.00
1998-99	7500.00	7274.00
1999-2000	8500.00	8383.00

Source: Department of Health

66. Considering that a significant number of cataract operations are performed on unilateral cataract blind persons and second eye of bilaterally blind persons, the rate at which Cataract Surgery would have to be done to clear backlog is well over 400 operations per 100,000 population. However, only three States (Tamil Nadu, Andhra Pradesh and Maharashtra) have reached the level of over 400 cataract operations/100,000 population. Analysis of service data reports indicate that both in medical colleges and in district hospitals the number of cataract operations done per bed or operation per surgery were far below the

expected levels in most of the states. This under utilisation of existing facilities need be immediately corrected. In order to improve the quality of services and follow up, the programme has shifted from the camp approach to increased use of fixed facilities except in under served areas.

Revised National Blindness Control Programme (RNBCP)

67. RNBCP was drawn up for 1998-2002 to cover the entire country and will focus both on prevention of avoidable blindness and restoration of vision in those who have been already been visually disabled irrespective of their capacity to pay. In the last two years there has been reports of ocular infections leading to loss of vision after IOL surgery in district hospitals. It is imperative that steps to minimise sepsis get due attention especially in IOL implantation and to ensure that IOL implantation is done only when these conditions are satisfactory. In tertiary care centres where skilled surgeon and adequate post-operative care is available, use of IOL may be preferred but extending IOL services at or below the district level where skilled surgeons and post-operative care are not available may have serious adverse consequences which has been reported from different parts of the country. IOL services should be provided only at levels where appropriate intra and post-operative care is available. There is a need to document sequel of IOL/ECCE in tertiary, secondary, district and below district levels and in camps.

NATIONAL CANCER CONTROL PROGRAMME (NCCP)

68. NCCP is a Central Sector Programme. Emphasis is on prevention, promotion, health education, early detection and augmentation of treatment facilities. During 1998-99, financial assistance was provided to two States for preventive health education, early detection and palliative care at the district level. Funds were also provided for purchase of equipments including Cobalt Therapy unit for two medical colleges in the country. Financial assistance is also provided to the regional cancer centres.

NATIONAL IODINE DEFICIENCY DISORDERS CONTROL PROGRAMME (NIDDCP)

69. The National Iodine Deficiency Disorders Control Programme (NIDDCP) envisages control of Iodine Deficiency Disorders like mental and physical retardation, deaf mutism, cretinism, high rates of abortion etc. through compulsory iodisation of salt. During 1999-2000 IDD surveys and re-surveys were conducted in the Chamba district of Himachal Pradesh, Keonjhar district of Orissa, Krishna district of Andhra Pradesh and Andaman & Nicobar Islands. For ensuring the quality of iodated salt at consumption level, testing kits for on the spot qualitative testing have been developed and have been distributed to all district health officers in endemic States for awareness.

70. As a part of its drive to prevent IDD among the general public, the Central Government had issued a notification w.e.f. May, 1998 making it mandatory for all manufacturers of edible salt to iodise their product. In view of the strong opinion that such a public health measures should not be enforced through statutory provision, the Central Government have issued a preliminary notification proposing a future withdrawal of the compulsory statutory iodisation of edible salt. The issue is now open for public debate.

INTEGRATED NON-COMMUNICABLE DISEASE CONTROL PROGRAMME

71. In view of increasing prevalence of non-communicable of it is essential that preventive, promotive, curative and rehabilitative services for NCD are made available throughout the country at primary, secondary and tertiary care levels so as to reduce the morbidity and mortality associated with NCD. The Centre is providing funds for strengthening facilities for care (Cancer Control Programme), setting up models for replication (National Mental Health Programme) and pilot projects (Diabetes Control Programme) as a Central Sector Programme. In some states e.g. Kerala, efforts are being made to implement an integrated non-communicable disease control programs at primary and secondary care level with emphasis on prevention of NCD, early diagnosis, management and building up of a suitable referral system. Tertiary care centres are being strengthened so that treatment facilities for management of complications improve.

72. As the anticipated increase in prevalence of NCD over the next few decades is at least in parts due to changing lifestyles, it is imperative that health education for primary and secondary prevention as well as early diagnosis and prompt treatment of NCD receive the attention that they deserve. The increasingly literate population can then be expected to take a pro-active role and help in achieving a reduction in morbidity and mortality due to NCD.

MEDICAL RESEARCH

73. The Indian Council of Medical Research (ICMR) is the nodal organisation for bio-medical research in India. Bio-medical and health systems research is also carried out by universities, research institutions, legal colleges and non-government organisations which are funded by several agencies including Department of Science & Technology, Department of Biotechnology and Council of Scientific & Industrial Research (CSIR) and concerned Ministries. The major thrust of ongoing research includes existing problems of communicable diseases, emerging problems of non-communicable diseases, improvement of health and nutritional status of women and children, and increasing contraceptive acceptance and continuation. In addition development of immuno diagnostic research studies on improved drug regimens to combat emerging drug resistance among several bacteria, alternative strategies for vector control in view of increasing insecticide resistance among vectors tested, development testing and quality control of newer drugs in the Indian system of medicines, operational research for efficient implementation of on-going health programmes are also being undertaken.

OUTLAY

State Sector

74. The Outlay and expenditure in the first three years of the Ninth Plan is shown in Annexure 5.4.1.2. Restructuring of the health care infrastructure, redeployment and skill development of the manpower, development of referral network, improvement in the Health management information system, development of disease surveillance and response at district level are some of the critical steps that have to be taken up by the State Governments in order to improve the functional status and efficiency of the existing health care infrastructure and manpower in the States. The centrally sponsored disease control programmes and the family welfare programme provide funds for additional critical manpower and equipment; these have to be appropriately utilised to fill critical gaps. The ongoing and the proposed EAPs are

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additional sources for resources. Health is one of the priority sector for which funds are provided in the central budget under the head Additional Central Assistance (ACA) for basic minimum services. The States will also be able to utilise these funds for meeting essential requirements for operationalising urban and rural health care.

Centre

75. The Table 5.4.1.9 below provides outlay and expenditure for Health sector during first three years of the Ninth Plan.

TABLE 5.4.1.9
Approved Outlay And Expenditure For Health

Eighth Plan Outlay (1992-97)	Ninth Plan Outlay (1997-2002)	1997-98 (BE)	1997-98 (Actual)	1998-99 (BE)	1998-99 (Actual)	1999-2000 (BE)	1999-2000 (Anticipated Expenditure)	2000-2001 (BE)
1712.00	5118.19	920.20	716.15	1145.20	814.34	1160.00	1000.00	1300.00

76. Health is one of the sectors identified under the Special Action Plan. In addition to the funds available from Domestic Budgetary Support, several centrally sponsored disease control programmes are receiving funds from EAPs.