5. INTERNATIONAL COOPERATION IN THE SECTOR

Various multilateral and bilateral organisations have provided, and continue to provide, significant technical and financial assistance to the health sector in the country. International NGOs also make a significant contribution to the sector. The agencies that are so engaged include:

- World Bank
- United Nations Childrens Fund (UNICEF)
- United Nations Population Fund (UNFPA)
- European Commission
- Danish International Development Agency (DANIDA)
- World Health Organisation (WHO)
- Swedish International Development Authority (SIDA)
- Overseas Development Administration (ODA) of United Kingdom
- United States Agency for International Development (USAID)

This chapter provides details of the health and population sector activities of the various bilateral and multilateral agencies in India. A list of projects undertaken by these agencies is given in Appendix N.

5.1 ASSISTANCE FROM MULTILATERAL DONOR AGENCIES

5.1.1 The World Bank

The World Bank-India collaboration in the social sector began in 1972, with the First Population Project. This was followed by projects in the areas of infrastructure, family planning and maternal and child care. Of late, the Bank has been concentrating on the improvement of the efficiency and the quality of the services that are delivered in the health sector.

The Bank has been involved in five completed Population, Health and Nutrition (PHN) projects in India; viz., four projects in the family welfare sector (Population I-IV) and the First Tamil Nadu Integrated Nutrition project. There are currently about 15 ongoing PHN projects in the country. In the health sector, these include the State Health Systems Development projects, National AIDS Control project, National Leprosy Elimination project and Cataract Blindness project. In the family welfare sector, besides the Population projects, the World Bank is funding Child Survival and Safe Motherhood (CSSM) projects. In the nutrition sector, Integrated Child Development Scheme (ICDS) projects are being implemented in various states.

5.1.2 United Nations Children's Fund

UNICEF has been providing parallel assistance for the Child Survival and Safe Motherhood programme along with the World Bank. The assistance from UNICEF depends on direct spending and includes the procurement of cold chain equipment, CSSM training, and communication.

UNICEF's approach to health places the family and the household at the centre of health action and the child at the centre of the family, as guided by the Convention on the Rights of the Child. UNICEF contributes to this effort by helping to strengthen country capacity in health monitoring, health promotion and essential health services within the primary health care approach.

UNICEF programmes and activities concerning HIV/AIDS are co-ordinated within the framework of the Joint United Nations Programme on HIV/AIDS (UNAIDS).

UNICEF programme funding for India during 1996-97 is to the extent of $71.60 million. UNICEF works through the child survival and safe motherhood (CSSM) programmes in India, to reduce infant and maternal mortality. Immunisation programmes are another focus area.

Recognising the growth in numbers and influence of NGOs over the past decade, UNICEF is increasingly working in partnership with NGOs, both in international advocacy and in country level programmes.

5.1.3 United Nations Population Fund (UNFPA)

There are four types of projects funded by the United Nations Population Fund (UNFPA) in the health sector under its Country Programme:

i. projects implemented by Ministry of Health and Family Welfare through state governments;

ii. projects implemented by other ministries through autonomous bodies;

iii. projects implemented by non-government agencies; and

iv. projects implemented and/or directly executed by UNFPA.

Most of the projects included in the Fourth Country Programme belong to the first category, and have formed part of the state Area Development Projects.

5.1.4 European Commission

The European Commission (EC) is collaborating with the Voluntary Health Association of India (VHAI), a national NGO, on a joint programme, whose objective is to strengthen the capabilities of NGOs to develop and implement interventions aimed at preventing the further spread of HIV and other STDs. The programme is for three years initially, and is supporting the following strategies:

- Capacity building within NGOs for HIV/AIDS and other STD activities.
- Primary prevention of HIV and other STDs, through the promotion of safer sexual behaviour.

- Promotion of condom use and improving access through health care structures.
- Improving STD control and prevention through primary health care.
- Advocacy and social mobilisation in support of people affected by HIV/AIDS and their communities.

VHAI, in collaboration with State Voluntary Health Associations (VHAs), identifies NGO projects from the six project states. NGO proposals submitted through the respective state VHAs are then appraised for potential funding at VHAI. Grants are available to NGOs for the following activities:

- undertaking needs assessment,
- undertaking capacity building and training,
- intervention implementation,
- small grants for short-term innovative projects.

5.2 ASSISTANCE FROM BILATERAL DONOR AGENCIES

5.2.1 Japan International Co-operation Agency (JICA)

The Japan International Cooperation Agency (JICA) is responsible for the major portion of the bilateral technical cooperation that is extended by the government of Japan under its Official Development Assistance (ODA) to developing countries. The four principles that guide Japan's ODA are:

- that assistance goes towards sustainable development,
- that aid is not put to military uses,
- that aid will bring about economic and social development which will contribute to international peace and stability, and
- that aid will promote market-oriented economy and good governance.

Figure 5.1 outlines the structure of Japan's ODA. The technical assistance provided by JICA helps the recipient countries in nation and human resource building. There are a number of ongoing grant-in-aid projects being implemented through JICA in India. Projects specifically in the health sector include the Kalawati Saran Childrens' Hospital Project being implemented through a grant in aid of ¥1,200 million ($12 million) in the premises of the Lady Hardinge Hospital in Delhi. A project type technical co-operation has been in progress since August 1990 at the Sanjay Gandhi Post Graduate Institute, Lucknow. This has now been extended to July 1997. Other ongoing projects includes a project for improvement of water quality monitoring in 12 cities of India, a project for eradication of polio wherein polio vaccines and cold chain equipment will be provided to UNICEF for 2 years. Other projects which are under consideration include the project for improvement of eqipment in the Institute of Child Health and Hospital in Madras and a project for diarrhoea control, which are in the preliminary stages at present.

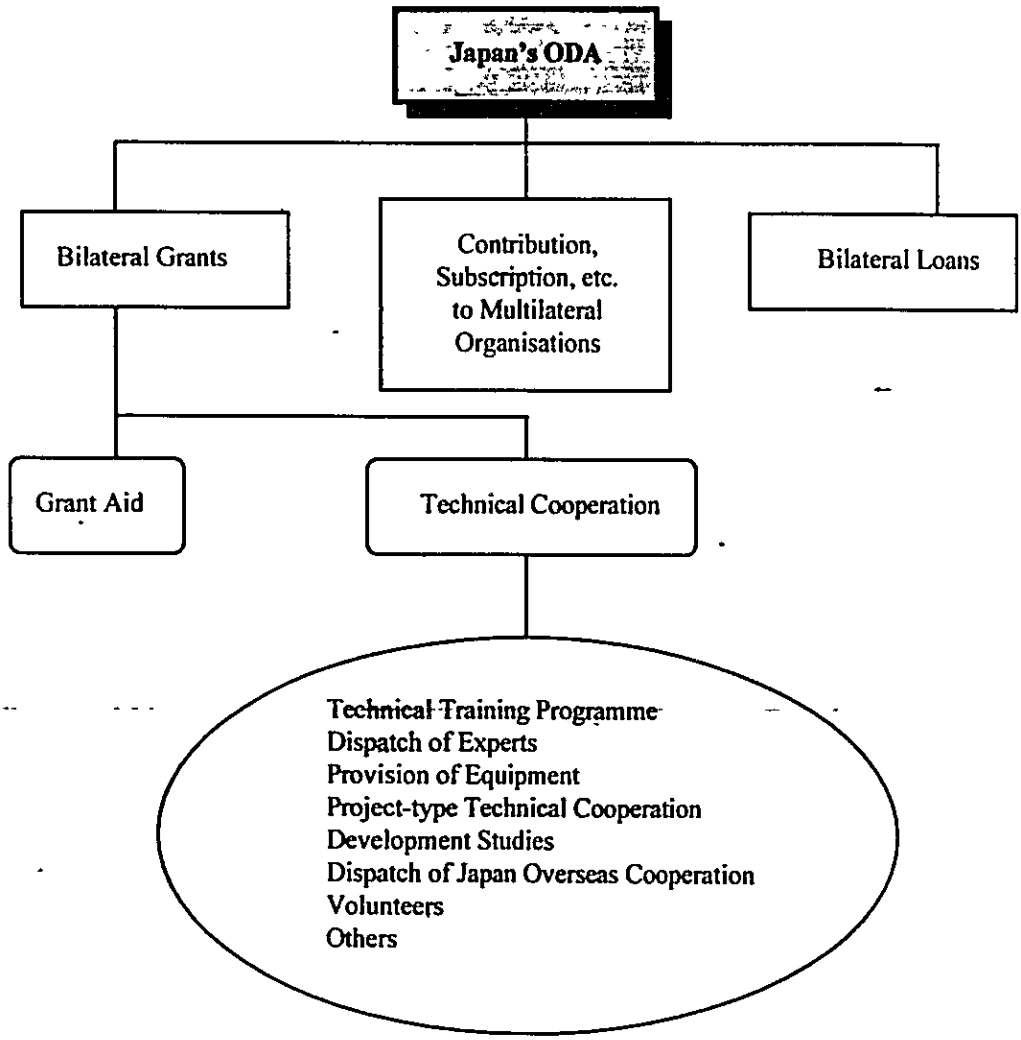

FIGURE 5-1: STRUCTURE OF JAPAN'S OFFICIAL DEVELOPMENENT ASSISTANCE

5.2.2 Danish International Development Agency

The Government of Denmark has been providing support for the development of health services with initiatives such as supply of equipment to Mobile Units, PHCs and District Hospitals and covering part of recurring costs. It is also involved in the following activities:

- manpower development;
- establishment of management systems at state level;
- establishment and development of monitoring and evaluation systems;
- preparation of health education material, teaching and information aids; and
- training.

5.2.3 Swedish International Development Authority

The Government of Sweden has been supporting the Government of India (GOI) in various sectors including health, forestry, water and sanitation, and education. The NLEP of the GOI had been supported by the Government of Sweden through the Swedish International Development Authority (SIDA) since 1978, and the national ICDS programme since 1989. SIDA funds to the sector are also channeled through WHO and UNICEF. Project implementation is carried out by GOI, with WHO playing the role of a consultant.

Currently, SIDA supports the CSSM programme through UNICEF, and is also implementing a project for the control of HIV/AIDS. Earlier, SIDA initiatives for control of AIDS were carried out through WHO. After the establishment of a separate body, UNAIDS, direct Swedish assistance is being provided to the National AIDS Control programme.

5.2.4 Overseas Development Administration (ODA)

The United Kingdom provides assistance to over 125 developing countries all over the world, with most of it concentrated on the poorest countries, the objective being to design and implement successful aid projects which contributes to the long-term economic and social progress of the recipient country. The Overseas Development Administration (ODA), the aid wing of the Foreign and Commonwealth Office, is the government department responsible for the United Kingdom's aid to developing countries. Since 1975, all the United Kingdom's aid to India has been in the form of grants.

Health and population activities are at the forefront of the ODA's work. ODA's strategic approach to this sector focuses on reproductive health and Children by Choice issues (including STDs/ HIV), the amelioration of health problems with major economic and social consequences (in particular TB, malaria, and STDs/HIV), and state level health sector development. The main ongoing projects are the Orissa Health and Family Welfare project (£20 million) the Andhra Pradesh School Health Project (£9 million), and St. Stephen's hospital maternal and neonatal care project (£4.6 million).

The ODA Health and Population Office has recently been established to take forward the development of new health and population projects in India, including projects in the area of sexual health, recognising the need to respond to the STD/HIV/AIDS pandemic in India. Three sexual health projects in the portfolio of projects in the health sector have been identified and are at different stages of development. The West Bengal Sexual Health Project is now in its substantive phase and aims to support the Government of West Bengal in its programme of strengthening sexual health services with particular emphasis on controlling potential spread of HIV and providing STD control and treatment services to people at risk.

The STD/HIV Targeted Interventions Project proposes to provide support to the National Aids Control Organisation for the implementation of a project aimed at promoting sexual health in selected urban and rural areas of India. The truckers project is another process project which proposes to slow down the spread of HIV by reducing the level of STD infection and associated risk behaviours of inter-city truck drivers, their crews and their sexual partners.

The range of future possibilities includes association with the MOHFW/World Bank's planned malaria and TB control projects; a Children by Choice project in West Bengal; and further work on STD/ HIV/AIDS through strengthening institutions at the national level.

5.2.5 United States Agency for International Development

USAID's overall goal is to help India achieve sustainable development to reduce poverty and improve standards of living. USAID selectively targets its assistance to achieve the following three programme objectives which build on the strengths of the existing portfolio and respond to new opportunities that have been created by the liberalisation process that the Indian government has initiated.

- To accelerate broad-based economic growth through increased competition and innovation in selected sectors.
- To stabilise India's population by reducing fertility in north India, increasing child survival efforts and supporting programmes to improve the role and status of women.
- Protect the environment by increasing energy conservation, and productivity, improving environmental conditions in selected areas and protecting biodiversity.

The USAID India office is headed by a Director, with the Office of Population, Health and Nutrition (PHN) implementing the health sector projects in the country.

The ongoing projects of the agency in the area of stabilising population growth include the project on Innovations in Family Planning Services (IFPS). This project proposes to assist the state of Uttar Pradesh in reducing its fertility rate through doubling the use of contraceptive methods over the project period. The project seeks to increase the access to family planning services by strengthening the public sector delivery system and developing or expanding the capacity for the delivery of services in the non-governmental sector, improving the quality of family planning services and encouraging family planning through broadening support among leadership groups and increasing the public understanding of the health and welfare benefits of family planning.

The Aids Prevention and Control Project (APAC) is being implemented since 1995, on the basis of a proposal received by USAID from Voluntary Health Services, Madras (VHS). The project is being administered by VHS (a registered society in existence since 1958) with financial assistance from USAID, under a bilateral agreement with the GOI. This is a $10 million project spread over the period 1992-2002. The project goal is to reduce the transmission of HIV/AIDS by focusing on and supporting a well co-ordinated effort by NGOs to implement interventions demonstrated to have the greatest impact on the spread of HIV. The project is being implemented in Tamil Nadu and focuses on sexually transmitted AIDS (as this mode of transmission accounts for 80 percent of HIV infection in the State). The project addresses populations with high risk behaviour and encourages safe sexual practices.

5.3 Assistance from International NGOs

5.3.1 ACTIONAID

ACTIONAID is an international development organisation working with the poor in 20 countries of Asia, Africa and Latin America. It exists to help children, families and communities to overcome poverty and improve their quality of life.

ACTIONAID has been working in India since 1972 and it has supported thousands of children and families in addressing the causes of their poverty. The organisation is involved in tackling a host of health-related problems also, through primary health care and education. Particular attention is paid to women and children. In many areas, ACTIONAID is working as a partner of the government in the joint running of primary health care centres.

The organisation uses the community for educating people on hygiene and sanitation, immunisation, food and nutrition, and simple home remedies for minor ailments. Where no hospital exists, ACTIONAID identifies the nearest, and creates local capacities to institute a referral procedure. The organisation has also been undertaking training and counselling activities for AIDS victims.

5.3.2 PLAN International

Foster Parents Plan (PLAN) is a private development organisation working with children, their needy families and communities. PLAN is a non-profit, non-political international voluntary organisation, providing developmental expertise and social services besides rendering financial and material assistance. PLAN facilitates the development and augmentaion of a child's environment through programmes in health, education, community development, skill-building and income generation.

PLAN came to India in 1979 and it started its programmes in partnership with volunatry agencies in India. Since then, it has been working in the areas of health, livelihood improvement, education, infrastructure development and community organisation through its seven partners. Its major programme activities under health include the following:

- Immunisation
- Pre and post-natal care
- Nutrition
- Potable water
- Housing
- Health education
- Treatment of fatal and life impairing diseases
- Child survival programme

5.3.3 The Ford Foundation

The Ford Foundation is a private, non-profit, philanthrophic organisation dedicated to human welfare and international peace. The Foundation works mainly by granting funds for research, training, experimentation and developmental efforts that promise significant advances in the fields of its program interests.

The Foundation established an office in India in 1952 and during the first two decades, the Foundation in New Delhi operated both as a grant-making organisation and an operational agency, focused primarily on agriculture and rural development. However, over the years, the Foundation also made major commitments in the areas of reproductive health and management, planning and management, culture, rights and governance.

The Ford Foundation in India has formulated a multi-faceted program to address women's reproductive health concerns. The program focuses on women in the context in which they live, work, bear and rear children, and seek and provide health care for their families. Through support for policy-oriented research, advocacy and experimentation, the Foundation's aim is to enhance women's roles and empower them as the major providers and users of child survival and reproductive health services.

The Foundation also seeks to improve the quality and access of reproductive health care services for disadvantaged women and their families. In this area, it has been concentrating on the states of Maharashtra, Gujarat and Rajasthan.

The Foundation makes grants to support field experiments with innovative service delivery strategies designed to improve the health of rural, tribal and urban slum women and their families. Special emphasis is placed on bridging the gap between the providers and users of health services, strengthening the connections between government agencies and NGOs and empowering women to better understand, articulate and act upon their reproductive health needs.

The Ford Foundation also supports applied social science research on women's reproductive health issues. Priority is accorded to research which aims toward a better understanding of Indian women's reproductive health needs, the consequences for their lives, and the social, economic and programmatic factors which prevent women from effectively resolving reproductive health problems.

The Foundation also supports AIDS prevention efforts in the areas of applied research, training and public education. The issue of safe abortion has also been identified as an area of special priority to the Foundation, and will be addressed through an integrated program of support for research, advocacy and innovative field experimentation.

5.4 EXPERIENCE OF INTERNATIONAL AGENCIES

International agencies have been active in the health sector since long, and have provided supply and non-supply assistance. Supply assistance is largely for procurement and supply of commodities as per the project requirements. Non-supply assistance covers items such as training, skill development, consultancy, communication material, and MIS.

The different project implementation channels used by donor agencies are as follows:

1. MOHFW through state governments
2. MOHFW through autonomous bodies such as societies and corporations
3. NGOs
4. Direct execution of activities

Funding and management approaches that are used by donor agencies could be categorised as follows:

1. Funding through multilateral organisations such as WHO, UNICEF
2. Bilateral funding, monitored directly by donor development co-operation office staff
3. Bilateral funding, monitored and partly managed by consultants based at site

4. Bilateral funding, managed by project specific donor employees; assisted by periodic visits of foreign/indian consultants, retained for the entire project period
5. Direct funding to NGOs

Funding through the government is either through the central line ministry or through the state treasury. The experience of donor agencies and lessons learnt through the project implementation process may be summed up as findings and implications on action required.

5.4.1 Findings

- Mere provision of funds/assistance in kind tends to be wasteful/underutilised.
- Problems in health sector are state/district specific
- Establishment of strong working relationship with implementing agency staff is necessary and local presence (preferably through local staff/consultants) is essential to maintain close working relationships at state and district levels
- Project negotiation is a lengthy process and timing apparently affects government acceptance of unusual funding channels/management arrangements due to impact of political considerations
- Commitment of the state government is critical if government administration is involved in project implementation
- Effective leadership of implementing agencies is a key issue for successful project implementation
- State governments do agree to independent legal entities such as government societies and even NGOs being funded directly through the central line ministry without going through the state treasury
- Securing co-operation of district level government officials remains the key to effective project implementation
- NGOs can be effectively used to complement government machinery
- It is difficult to find reputed NGOs with the required organisational capacity/reach.

5.4.2 Implication on Action Required

- Funding needs to be complemented with managerial assistance during project implementation
- For assistance in kind, arrangements should also be made for preservation, maintenance and distribution as per need
- Regular monitoring must be undertaken to be able to effect mid-course corrections to project activities if required
- Appropriate incentives need to be built in the project design to state and district level staff
- Considerable usage of local staff/consultants needs to be made
- Training of personnel involved in project activities and institutional strengthening of project implementing agencies must be taken up

5.5 SCOPE AND AREAS FOR FURTHER ASSISTANCE

Health has been a priority sector in India's development efforts and the government has set up an elaborate structure with an unparalleled country-wide reach. However, problem areas are inadequate/poor maintenance and poor quality of service. Excess pressure (population), lack of incentives coupled with a poor work environment affect the quality/performance of medical staff. As a result, although funds are provided to the government health system, desired level and quality of activities do not take place.

Considerable disparities exist between the urban and rural parts of the country with respect to access to health facilities and service quality. The urban-based hospitals tend to be overcrowded, whereas some of the remote rural facilities remain underutilised because they are unable to provide even basic services. Recent sector work has found that the private sector plays a major role in the provision and financing of health care in India.

Thus, it is apparent that there is a large gap between demand and supply of services and a great deal needs to be done in strengthening the infrastructure already created, both in terms of the hardware requirements as well as the capacity building aspects. As such, there is a large scope for assistance in the health sector. It is important that both aspects (hardware and institutional strengthening) are addressed simultaneously. Effecting behaviour changes in local populations as well as strengthening of community organisations also need to be undertaken.

Areas appropriate for intervention of donor agencies could be classified into three categories as follows:

1. Funding of construction activities, provision of modern equipment and laboratory facilities
2. Funding capacity building exercises within government departments and institutions to improve organisational performance
3. Funding private initiatives in the health sector (designing projects around private sector health providers and institutions)

Capacity building exercises within government departments and agencies could be undertaken with a focus on the following:

- Strengthening of service delivery mechanism including logistics management
- Addressing needs of district level government staff
- Augmenting channels of co-ordination between different government agencies
- Building up self-sustainable implementing agencies by combining subsidised services for the poor with facilities for the richer classes to generate revenue

Prior to project formulation, state specific studies to ascertain needs, constraints and alterables at each level, must be undertaken.

6. PROJECT STATES

Health is being increasingly recognised as one of the important factors that contributes positively in national economic development. The objective of the National Health Policy is to ensure sustained, purposeful and fundamental changes in the health sector. The sector planning should be based on a holistic view of the health sector. There exist two frameworks for analysing a sector. One based on the linkages between different institutional actors in the health sector and the second, linkage across different functional areas for planning.

The Government of India (GOI) is committed to achievement of Health for All (HFA) target by the year 2,000. The prime objectives of medical and health sector during the Eighth Five year Plan were as follows:

1. Provision of comprehensive primary health care
   a) Appropriate treatment of common ailments and injuries
   b) Prevention and control of locally endemic diseases
   c) Immunisation against the major infectious disease
   d) Maternity and child care
   e) Control of population growth
   f) Provision of essential basic drugs to the community
   g) Adequate safe water supply and basic sanitation
   h) Promotion of food supply and proper nutrition
   i) Health education, regarding preventing health problems and the methods of controlling them
2. Qualitative and quantitative improvement and strengthening of health care delivery system
3. Expansion and extension of medical health services in remote, rural, hilly and tribal areas, to remove inter-regional and intra-regional deficiencies and disparities
4. Priority in providing health services in urban slums and scheduled caste, and scheduled tribes populated areas
5. Strengthening and consolidation of available health infrastructure
6. Inter-sectoral co-ordination with other health related social and development sectors like education, social welfare and women welfare, etc.

Quantitative targets of the Health For All programme in various spheres of health are given in Table 6-1.

TABLE 6-1: HEALTH FOR ALL GOALS BY 2000 AD

Indicator	Goal by the year 2000
Crude Death Rate	9.0
Life Expectancy at birth (Years)	
Male	64
Female	64
Crude Birth Rate	21.0
Effective Couple Protective (%)	60.0
Net Production Rate (NRR)	1.00
Growth Rate	1.20
Family SIze	2.3
Infant Mortality Rate	Below 60
Pre-natal mortality	30-35
Pre-school child (1-5 years) mortality	10

Maternal Mortality	Below 2
Babies with birth weight below 500 gms. (%)	10
Pregnant mothers receiving antenatal care (%)	100
Deliveries by trained birth attendants (%)	100
Immunization Coverage TT (for pregnant women)-%	100
DPT (children below 3 years)-immunization coverage	85
Polio (infants) %-immunization coverage	85
BCG (infants) %-immunization coverage	85
DT (new school entrants 5-6 years)-%	85

The present health scenario is characterised by battling with diseases like malaria, tuberculosis, blindness, cholera, and AIDS. Trends of some of the diseases state-wise is given in Tables 6-2 and 6-3.

TABLE 6-2: STATE-WISE CASES AND DEATHS FOR SELECT DISEASES

	Tuberculosis (1992)		Malaria (1992)	
	Cases	Deaths	Cases	Deaths
Andhra Pradesh	209581	1177	80305	0
Arunachal Pradesh	3315	34	19113	0
Assam	13027	92	95168	20
Bihar	0	0	65362	21
Goa	7409	90	848	0
Gujarat	27660	233	348532	28
Haryana	72557	319	16662	1
Himachal Pradesh	18368	277	7251	0
Jammu & Kashmir	3579	0	1244	0
Karnataka	52780	575	81057	0
Kerala	38716	239	8255	2
Madhya Pradesh	50655	181	269930	39
Maharashtra	76880	1059	203812	2
Mainpur	1113	0	2119	9
Meghalaya	1998	13	11283	0
Mizoram	980	20	20592	36
NAgaland	471	0	2218	0
Orissa	54710	816	3623902	155
Punjab	12859	109	23225	0
Rajasthan	66012	412	121499	55
Sikkim	991	25	208	1
Tamil Nadu	58922	411	151633	2
Tripura	0	0	9350	6
Uttar Pradesh	32423	114	135242	0
West Bengal	39193	574	49130	43
A & N Islands	822	30	1688	1
Chandigarh	0	0	17559	0
D & N HAveli	625	4	6676	0
Daman & Diu	644	6	1199	0
Delhi	63244	1661	11241	1
Lakshwadeep	17	0	1	0
Pondicherry	32703	30	1034	0
Total	942254	8501	2125826	422

TABLE 6-3: STATE-WISE OCCURRENCE OF STD (1990)

	Sexually Transmitted Diseases (1990)
Andhra Pradesh	86316
Arunachal Pradesh	0
Assam	2812
Bihar	18423
Goa	3014
Gujarat	98362
Haryana	5306
Himachal Pradesh	3907
Jammu & Kashmir	16282
Karnataka	87114
Kerala	26201
Madhya Pradesh	31479
Maharashtra	227822
Mainpur	3012
Meghalaya	4518
Mizoram	2532
NAgaland	1981
Orissa	91643
Punjab	2321
Rajasthan	26508
Sikkim	0
Tamil Nadu	243871
Tripura	4012
Uttar Pradesh	36037
West Bengal	43491
A & N Islands	0
Chandigarh	237
D & N HAveli	0
Daman & Diu	0
Delhi	38315
Lakshwadeep	0
Pondicherry	9612
Total	1141740

Source: Health Information of India, 1993

6.1 DELHI

The national capital territory of Delhi is the third largest city in terms of population in India. Only Mumbai and Calcutta are larger than Delhi in this respect. Delhi ranks 16th among the world's 34 largest cities. Delhi has witnessed a population explosion after independence. The population of Delhi was 0.91 million in 1941. This increased to 1.74 million in 1951 and thereafter in the next four decades it has reached a figure of 9.42 million, an increase of almost five and a half times. Of the 9.42 million people, only 0.95 million live in the rural areas.

While the birth rate per thousand has declined from 33.10 in 1951 to 28.52 in 1991, the death rate has declined from 9.00 to 6.35 during the same period. The resulting growth rate of 22.17 is slightly less than the national figure of 23.85.

Delhi has an urbanisation percentage equal to 89.93 and a density of 6,352 persons per square kilometre. The population of 9.42 million of Delhi forms 1.12 percent of the total population of the country. Delhi has witnessed stupendous growth since independence especially on the educational and medical facilities front. It has four universities, five deemed universities and two institutions of national importance apart from more than 2,800 other educational institutions. On the health and medical front, Delhi has 81 hospitals with approximately, 19,000 beds.

The rapid pace of urbanisation in Delhi has led to geometric increase in the vehicular population. Although the percentage of deaths ocurring due to respiratory disorders is not very high, the number of people suffering from one or the other form of respiratory disorder is increasing at an alarming rate. Further, due to the lack of a mass rapid transport system (MRTS) in the city the number of buses has also increased rapidly. Road accidents in the city, also contribute to a significant percentage of deaths caused.

The respiratory diseases by far outnumber the rest of the infections and diseases. Blood related diseases and intestinal infections are the other major reasons. The trends for 1988-89 and 1989-90 are given in Table 6-4.

TABLE 6-4: DISEASE PATTERN IN DELHI

Morbidity	1988-89	1989-90	Percent increase
Respiratory diseases other than upper respiratory tract	72476	91101	25.70%
Intestinal Infection / Diseases	36423	40794	12.00%
Diseases of oral cavity, salivary glands and jaws	23433	37805	61.33%
Anaemia	47780	30908	-35.31%
Diseases from skin and subcutaneous tissues	26053	29926	14.87%
Diseases of teeth and supporting structure	18149	23359	28.71%
Diseases of the upper respiratory tract	15311	19904	30.00%
Cataract	13553	11546	-14.81%
Atherosclrosis	8539	11504	34.72%
Blindness and low vision	9680	10742	10.97%
Fractures	10426	9881	-5.23%
Tuberclosis Pulmonary	5754	5959	3.56%
Other Sites	1748	3283	87.81%
Protien Energy Malnutrition	8308	8890	7.01%
Conjunctivitis	7532	7971	5.83%
Acute Rheumatic Fever	5292	6638	25.43%
Injuries	9366	6208	-33.72%
Otitis Media	5774	6142	6.37%
Hypertensive diseases	3382	4115	21.67%
Trachoma	1915	2777	45.01%
Malaria	1850	1525	-17.57%

Source: Directorate of Health services, National Capital Region of Delhi

6.1.1 Organisation

The department of Medical and Public Health is headed by Secretary (Medical) who is assisted by the Secretary and the two Joint Secretaries. The department is responsible for ensuring effective medical facilities for the citizens of Delhi. The department has a separate Directorate of Health services which runs the various public health institutions and also carries out family

welfare programmes. Apart from this, there are eight hospitals and the Drug Control Department under the administrative control of the department of Medical and Public Health.

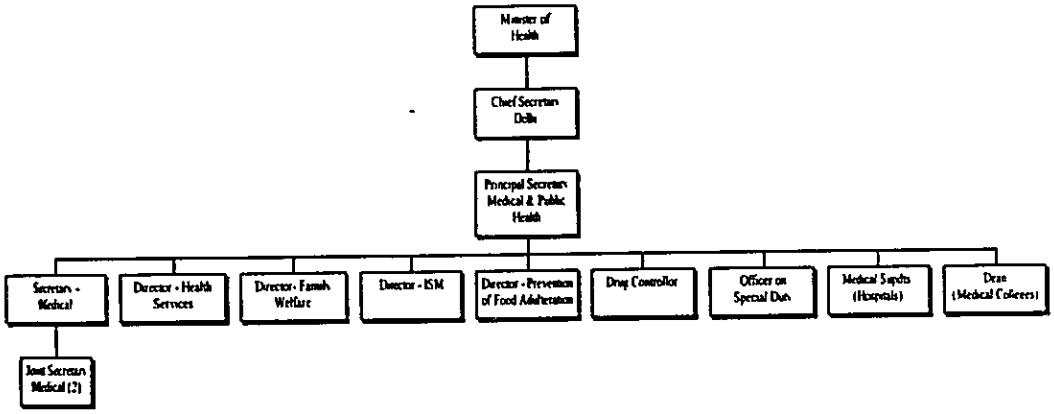

FIGURE 6-1: ORGANISATION STRUCTURE OF THE DEPARTMENT OF MEDICAL & PUBLIC HEALTH, GOVERNMENT OF DELHI

The eight hospitals under the administrative control of the health department are :

- Deen Dayal Upadhyaya
- Guru Teg Bahadur
- The Institute of Human Behaviour and Allied Sciences
- Civil Hospital
- MAM College
- Guru Nanak Eye Centre
- Sanjay Gandhi Memorial Hospital
- LNJP Hospital

6.1.2 Health Budget

The outlay for the health (medical) sector for the year 1996-97 is Rs. 1,296.60 million and for public health is Rs. 131.00 million. This together forms 6.86 percent of the total budget of the state. The agency wise breakup of the budgets for health (medical) and public health is provided in Tables 6-5 and 6-6 respectively.

TABLE 6-5: AGENCY WISE BREAK UP-OF BUDGET FOR HEALTH (MEDICAL), 1996-97

(Rs. Million)

Delhi Govt.	
Directorate of Health Services	325.00
Indian Institute of Medicine & Homeopathy	25.00
DDU Hospital	100.00
GTB Hospital	170.00
Central Jail Hospital	10.00
Upgrading of Civil Hospital	38.60
IHBAS	80.00
GN Eye Centre	15.00
LNJP Hospital	135.00
MAM College	25.00
GB Pant Hospital	120.00
CAT	15.00
Joint Sector Hospital	50.00
SGM Hospital	5.00
Plng & Monitoring Cell in Medical Deptt.	0.50
Sub total	1,114.10
MCD	170.00
NDMC	12.50
Total	1,297.10

TABLE 6-6: AGENCY WISE BREAK UP-OF BUDGET FOR PUBLIC HEALTH, 1996-97

(Rs. Million)

Delhi Government	
Directorate of PFA	3.00
Stg. of Drug Control Org.	6.00
Directorate of Health Services	25.50
Home Deptt. (Forensic Lab.)	30.00
MCD	65.00
NDMC	1.50
Total	131.00

6.1.3 Health Activities in Delhi

Family welfare services in the state including immunisation were rendered through a network of 126 centres. During the year 1993-94, 38,763 sterilisation and 80,985 IUCD cases were conducted. The total number of patients treated in the year 1993-94 in various hospitals run by the directorate of health services is 4,19,458. Under the school health scheme, medical facilities to school going children was provided through 64 school health clinics. Approximately, 0.5 million students availed the facility.

6.1.4 Medical Resources

Medical care facilities are provided by multiple agencies in the national capital territory of Delhi. In 1994, the Delhi government, central government, local bodies, statutory bodies, voluntary organisations and private institutions were the various different agencies which were operating a number of hospitals, dispensaries, special clinics and nursing homes. Table 6-7 and 6-8 below gives the overall view of the number of medical facilities available in Delhi, discipline wise, viz., allopathic, ayurvedic, unani and homeopathy and hospital-wise respectively. Tables 6-9, 6-10

and 6-11 give a detailed comparison of the medical facilities available in the state, agency wise for the years 1993 and 1994.

TABLE 6-7: OVERALL AVAILABILITY OF MEDICAL FACILITIES IN DELHI

Sl. No.	Name of the Institution	1993		1994	
		No.	Beds	No.	Beds
I.	**Hospitals**				
1.	Allopathic	73	18,287	73	18,796
2.	Allopathic/Ayurvedic	1	316	1	335
3.	Ayurvedic	4	195	4	195
4.	Allop./Ayur./Unani	1	150	1	150
6.	Homoeopathic	2	150	2	150
	TOTAL:	**82**	**19,208**	**82**	**19,726**
II.	**Dispensaries***				
1.	Allopathic	447*	-	445*	-
2.	Ayurvedic	112	-	118	-
3.	Unani	19	-	19	-
4.	Homoeopathic	85	-	93	-
	TOTAL:	**663**	**-**	**675**	**-**
III.	**Primary Health Centres**	8	73	8	73
IV.	**Sub-Centres Attached to PHO**	16	-	16	-
V.	**Maternity & Child Welfare Centres**				
1.	Main Centre	153	333	154	340
2.	Sub-Centre	50	-	35	-
	TOTAL:	**203**	**333**	**189**	**340**
VI.	**Poly-Clinics**	11	-		
VII.	**Special Clinics**				
1.	T. B.	13	-	13	-
2.	S. T. D.	10	-	10	-
3.	Leprosy	8	150	8	150
4.	Cancer	6	-	6	-
	TOTAL:	**37**	**150**	**37**	**150**
VIII.	**Nursing Homes**	109	2,329	108	2,549

* Including Mobile and Part-time Dispensaries.

TABLE 6-8: HOSPITALS AND BEDS IN DELHI

Sl. No.	Name and address of Hospital	No. of Beds
I.	**MUNICIPAL CORPORATION OF DELHI**	
a.	**Major Hospitals**	
1.	Hindu Rao Hospital, Hindu Rao Marg, Subzi Mandi, Delhi.	980
2.	Infectious Disease Hospital, Kingsway Camp, Delhi.	167
3.	Mrs. Girdhari Lal Maty. Hospital, Ajmeri Gate, Delhi.	97
4.	Rajan Babu T. B. Hospital, Kingsway Camp, Delhi.	1,155
5.	Swami Dayanand Hospital, Shahdara, Delhi.	230
6.	Kasturba Gandhi Hospital, Jama Masjid, Delhi.	450
B.	**Colony Hospitals**	
7.	Balak Ram Hospital, Timarpur, Delhi.	25
8.	Civil Hospital, Shahdara, Delhi.	12
9.	Hudson Lines Maty. Hospital, Kingsway Camp, Delhi.	30
10.	Kalkaji Hospital, Kalkaji, New Delhi.	31
11.	lajpat Nagar Hospital, Lajpat Nagar, New Delhi.	47
12.	Malviya Nagar Hospital, Malviya Nagar, New Delhi.	31

13.	Moti Nagar Hospital, Moti Nagar, New Delhi.	31
14.	Patel Nagar Hospital, Patel Nagar, New Delhi.	25
15.	Tilak nagar Hospital, Tilak nagar, New Delhi.	47
16.	T. B. Clinic & Hospital, KilokriNehru Nagar, New Delhi.	55
17.	T. B. Clinic, Narela, Delhi (Rural)	22
18.	T. b. Clinic & Hospital, Patparganj, Delhi.	52
	Sub-Total (I):	3,487
II.	**NEW DELHI MUNICIPAL COMMITTEE**	
1.	N. D. M. C. Hospital, Moti Bagh, New Delhi.	157
2.	Palika Maty. & Gynae. Hospital, Lodhi Road, New Delhi.	50
	Sub-Total (II):	207
III.	**DELHI CANTONMENT BOARD**	
1.	Cantonment board General Hospital, Delhi Cantt. New Delhi.	30
	Sub-Total (III):	30
IV.	**DELHI GOVERNMENT**	
1.	Din Dayal Upadhyay Hospital, Hari Nagar, New Delhi.	500
2.	G. B. Pant Hospital, Jawahar Lal Nehru Marg, New Delhi.	452
3.	Lok Nayak Hospital, J. L. N. Marg, New Delhi.	1,370
4.	Jail Hospital, Central Jail Tihar, New Delhi.	122
5.	Dr. N. C. Joshi Memo, Hospital, karol Bagh, New Delhi.	30
6.	Civil Hospital, Rajpur Road, Delhi.	20
7.	Guru Tegh Bahadur Hospital, Shahdara, Delhi.	781
8.	Guru Nanak Eye Centre, Maharaja Ranjit Singh Marg, New Delhi.	184
9.	Kasturba Niketan Home, Lajpat Nagar, New Delhi.	4
10.	Poor House Hospital, Kingsway Camp, Delhi.	20
11.	Sanjay Gandhi Memorial Hospital, Mangolpuri, New Delhi.	100
12.	R. T. R. M. hospital, Jaffarpur, New Delhi.	25
13.	L. B. S. Hospital, Khichripur	
14.	B. J. R. M. Hospital, Jahangirpuri, New Delhi.	
15.	Guru Gobind Singh Hospital, Raghubir Nagar, New Delhi (Started on 30/12/1995).	
	Sub-Total (IV):	3,608
V.	**CENTRAL GOVERNMENT**	
1.	CGHS Hospital, New Police Lines, Kingsway Camp, Delhi.	16
2.	CGHS Hospiutal, Old Police Lines, Rajpur Road, New Delhi.	50
3.	CGHS Maty. & Gynae. Hospital, R. K. Puram, New Delhi.	45
4.	CGHS Maty. & Gynae. Hospital, Srinivaspuri, New Delhi.	82
5.	Safdarjung Hospital, New Delhi.	1,531
6.	S. K. Hospital, Panchkuian Road; New Delhi.	775
7.	Dr. R. M. L. Hospital, New Delhi.	937
8.	Kalawati Saran Children Hosptial, New Delhi.	350
9.	Base Hospital, Delhi Cantt., New delhi.	873
	Sub-Total (V):	4,659
VI.	**RAILWAYS**	
1.	Northern Railways Central Hospital, Basant Lane, New Delhi.	426
2.	Northern Railways Divisional Hospital, Delhi.	50
	Sub-Total (VI):	476
VII.	**STATUTORY BODIES**	
1.	ESI Hospital, Basai Dara Pur, New Delhi.	600
2.	Dr. Rajendra Prasad Centre for Opthalmic Science, Ansari Road, New Delhi.	300
3.	V. B. Patel Chest Institute University of Delhi, Delhi.	60
4.	I. I. T. Hospital, Hauz Khas, New Delhi.	14
5.	AIIMS, Ansari Nagar, New Delhi.	1,225
6.	E. S. I. Indira Gandhi Hospital, Jhilmil Colony, Shahdara.	200
7.	Indian Red Cross Society Maty. F. W & Child Care Hosptial, Seemapuri, Delhi.	45

8.	Institute of Human Behaviour & Allied Sciences, Shahdara, Delhi.	578
9.	Lala Ram Swarup T. B. Hospital, Mahrauli Road, New Delhi.	520
	Sub-Total (VII):	476
VIII.	**VOLUNTARY ORGANISATIONS**	
1.	All India Blind Relief Society (Model Eye & Maty.) Hospital, F-Block, Lajpat Nagar, New Delhi.	40
2.	Dr. B. L. Kapoor Memo. Hospital, Pusa Road, New Delhi.	150
3.	Dr. Shroff Charity Eye Hospital, Darya Ganj, Delhi.	50
4.	Holy Family Hosp., Okhla, Delhi.	308
5.	New Delhi T. B. Centre, J. L. N. Marg, New Delhi.	15
6.	R. B. Seth Jessa Ram Hospital, Karol Bagh, New Delhi.	82
7.	Sant Parmanand Blind Relief Mission, 18-Alipur Road, Delhi.	86
8.	Shri Ganga Ram Hospital, Rajinder Nagar, New Delhi.	499
9.	Sunder Lal jain Charitable Hospital	130
10.	Shri Multan Sewa Samiti Eye Hospital, Farash Khana, Delhi-6.	50
11.	St. Stephens Hospital, Tis Hazari, Delhi.	605
12.	Tirth Ram Shah Hospital, Battery Lane, Rajpur Road, Delhi.	182
13.	Mata Chanan Devi Arya Charitable Eye Hospital, Janak Puri, New Delhi.	100
14.	Batra Hospital and Medical Research Centre, 1-Tughlakabad Industrial Area, New Delhi.	270
15.	Leprosy Mission Hospital, Nand nagri (Shahdara), Delhi.	35
16.	Escort Heart Institute and Research Centre, Okhla, New Delhi.	185
	Sanatan Dharam Charitable Hospital, F-14/3, Model Town, Delhi.	-
	Sub-total (VIII):	2,787
	Total (I to VIII):	18,796

TABLE 6-9: STATEMENT SHOWING AGENCY-WISE POSITION OF AVAILABILITY OF MEDICAL FACILITIES IN DELHI

Sl. No.	Medical Institutions	M.C.D.	N.D.M.C.	Cantt. Board
		1994	1994	1994
(1)	(2)	(3)	(4)	(5)
A.	**HOSPITALS**			
I.	**Allopathic**			
1.	Number	18	2	1
2.	Beds	3487	207	30
II.	**Ayurvedic**			
1.	Number	2	-	-
2.	Beds	120	-	-
	Total I + II			
	Number	20	2	
	Beds	3,607	207	30
B.	**DISPENSARIES**			
1.	Allopcathic	58	12	-
2.	Ayurvedic	89	10	-
3.	Unani	14	-	-
4.	Homoeopathic	14	12	-
	Total 1 to 4	175	34	-
C.	**PRIMAY HEALTH CENTRES**			
1.	Number	5	-	-
2.	Beds	47	-	-

D.	MATERNITY & CHILD WELFARE CENTRES			
1.	Main Centres	131	13	1
2.	Sub-Centres	35	-	-
3.	Beds	268	60	-
E.	SPECIAL CLINICS			
1.	T. B.	9	1	-
2.	S. T. D.	3	-	-
3.	Leprosy	3	-	-
4.	Cancer	-	-	-
	Total 1 to 4	15	1	-

TABLE 6-10: AGENCY-WISE AVAILABILITY OF MEDICAL FACILITIES IN DELHI

Sl. No.	Medical Institutions	Delhi Govt.	Central Govt.	Railways
		1994	1994	1994
(1)	(2)	(3)	(4)	(5)
A.	HOSPITALS			
I.	Allopathic			
1.	Number	15**	9	2
2.	Beds	3,608	4,659	476
II.	Ayurvedic			
1.	Number	-	1	-
2.	Beds	-	25	-
III.	Homoeopathic			
	Number	16	10	2
	Beds	3,708	4,684	476
B.	DISPENSARIES			
1.	Allopcathic	151	89	12
2.	Ayurvedic	-	12	-
3.	Unani	-	4	-
4.	Homoeopathic	38*	13	-
	Total 1 to 4	189	118	12
C.	PRIMAY HEALTH CENTRES			
1.	Number	-	3	-
2.	Beds	-	26	-
3.	Sub-Centres	-	16	-
D.	MATERNITY & CHILD WELFARE CENTRES			
1.	Main Centres	-	2	-
2.	Sub-Centres	-	-	-
3.	Beds	-	12	-
E.	SPECIAL CLINICS			
1.	T. B.	-	-	-
2.	S. T. D.	2	3	-
3.	Leprosy	1	3	-
4.	Cancer	1	1	-
	Total 1 to 4	4	7	-

** Includes one hospital opened in December, 1995.

* 5 Dispensaries were opened in January, 1996 under DHS.

TABLE 6-11: AGENCY-WISE AVAILABILITY OF MEDICAL FACILITIES IN DELHI

Sl. No.	Medical Institutions	Statutory Bodies	Voluntary Organisations	Private
		1994	1994	1994
(1)	(2)	(3)	(4)	(5)
A.	**HOSPITALS**			
I.	**Allopathic**			
1.	Number	9	17	-
2.	Beds	3,452	2,787	-
II.	**Ayurvedic**			
1.	Number	1	1	-
2.	Beds	50	335	-
III.	**Allopathic/Unani/Ayurvedic**			
	Number	1	-	-
	Beds	110	-	-
IV.	**Allopathic/Unani**			
1.	Number	-	1	-
2.	Beds	-	150	-
V.	**Homoeopathic**			
1.	Number	-	1	-
2.	Beds	-	40	-
	Total I to V			
1.	Number	11	20	-
2.	Beds	3,702	3,312	-
B.	**DISPENSARIES**			
1.	Allopcathic	115	8	-
2.	Ayurvedic	6	1	-
3.	Unani	-	1	-
4.	Homoeopathic	3	13	-
	Total 1 to 4	124	23	-
C.	**MATERNITY & CHILD WELFARE CENTRES**			
1.	Main Centres	-	7	-
2.	Sub-Centres	-	-	-
3.	Beds	-	-	-
D.	**SPECIAL CLINICS**			
1.	T. B.	1	2	-
2.	S. T. D.	1	1	-
3.	Leprosy	1	-	-
4.	Cancer	1	3	-
	Total 1 to 4	4	6	-
E.	**NURSING HOMES**			
1.	Number	-	-	108
2.	Beds	-	-	2,549

Table 6-12 below gives details of the staff in position in the hospitals of Delhi.

TABLE 6-12: STAFF IN-POSITION IN HOSPITALS

Sl. No.	Name of the Hospitals	Specialists Doctors	Medical Officers	Nursing Staff	Paramedical	Class IV
(1)	(2)	(3)	(4)	(5)	(6)	(7)
I.	Allopathic					
A.	Municipal Corporation of Delhi	69	667	1,153	1,607	1,505
B.	N. D. M. C.	14	42	83	100	50
C.	Delhi Cantonment Board	1	8	8	9	7
D.	Delhi Government	358	351	2,036	1,073	2,762
E.	Central Government	240	168	1,460	847	1,763
F.	Railways	26	48	157	79	448
G.	Statutory Bodies	243	301	1,473	550	1,962
H.	Voluntary Organisations	606	387	1,755	680	1,687
II.	Allopathic & Ayurvedic Hospital	79	87	231	13	210
III.	Ayurvedic & Unani Hospital	29	12	45	22	10
IV.	AYURVEDIC HOSPITAL	3	6	6	42	16
V.	HOMOEOPATHIC HOSPITAL	66	10	28	21	64
	Total	1,734	2,087	8,435	5,043	10,484

It is worth pointing out here that although Delhi has a well established infrastructure for delivering health care services to the masses, a majority of these institutions have been found to be functioning with obsolete and non-functioning equipment, and do not even fulfil mandatory requirements. Further, it has been seen that a very large percent of the current outlay for the health sector is spent in salaries, leaving a very meagre amount for medicines, equipment, drugs, diagnostic reagents etc. Hence, to provide adequate health facilities through the optimum utilisation of the existing infrastructure, it is essential that the outlay for health in the state be increased.

The National Institute of Traumatology is one of the projects being considered for funding by JICA for assistance. Details of the proposed institute are given in Appendix K.

6.2 HARYANA

Haryana is situated in the north of India, with a total area of 44,212 sq. kms., and, along with the state of Punjab, comprises the wheat basket of the country. It has predominantly, an agriculture-driven economy with approximately 75 percent of its population living in the rural areas. The states of Uttar Pradesh, Punjab, Himachal Pradesh, Rajasthan, and national capital territory of Delhi are its neighbours. Haryana shares its capital, Chandigarh, with Punjab.

With a decennial growth of 27.41 percent for the 1981-91 decade, the state's population has increased to 18.40 million. Its population density is 372, compared to aggregate figure for India of 274.

6.2.1 Organisation

The health department in the state is headed by the Commissioner Health Department with the Project Director and Director General Health Services reporting to him. The Directors - Family Welfare, Malaria, Dental, Laboratory and Senior Scale and the different Programme Officers

report to the Director General Health Services. The organisation structure is depicted in Figure 6-2.

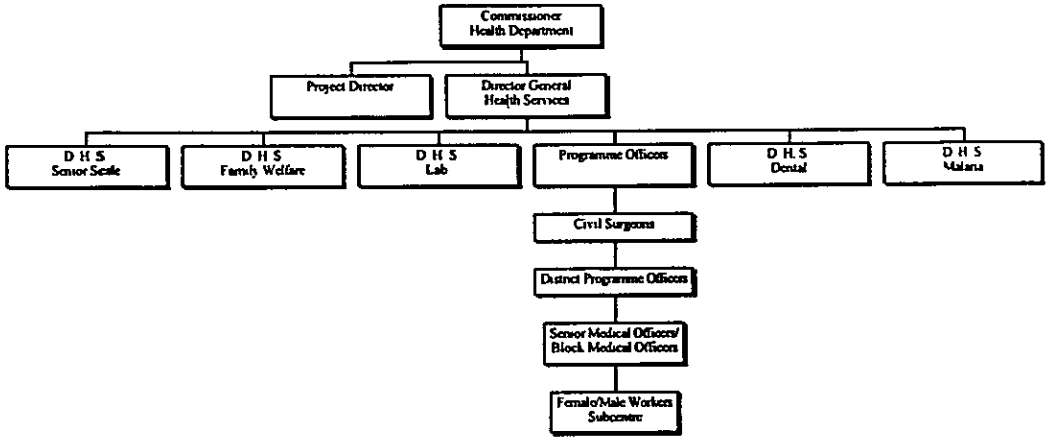

FIGURE 6-2: ORGANISATIONAL SETUP OF THE MINISTRY OF HEALTH - GOVERNMENT OF HARYANA

6.2.2 Health Activities in Haryana

Government Health Department, Haryana provides medical services through a network of 2,299 Sub-centres (SCs), 399 Primary Health Centres (PHCs), 63 Community Health Centres (CHCs), 116 Dispensaries and 47 Hospitals. The state government plans to establish 2,367 SCs, 394 PHCs, and 98 CHCs by the year 2,000 to implement the nation-wide campaign of 'Health for All'.

The aggregate state budget allocation for health for the year 1996-97 is approximately Rs 17.87 billion. This is 14 percent above last year's health budget. The per capita health expenditure is Rs. 84.84 in 1995-96.

a) Family Welfare

The state government has also invested in the Family Welfare programme. The results of the last two fiscal years are given in Figure 6.4..

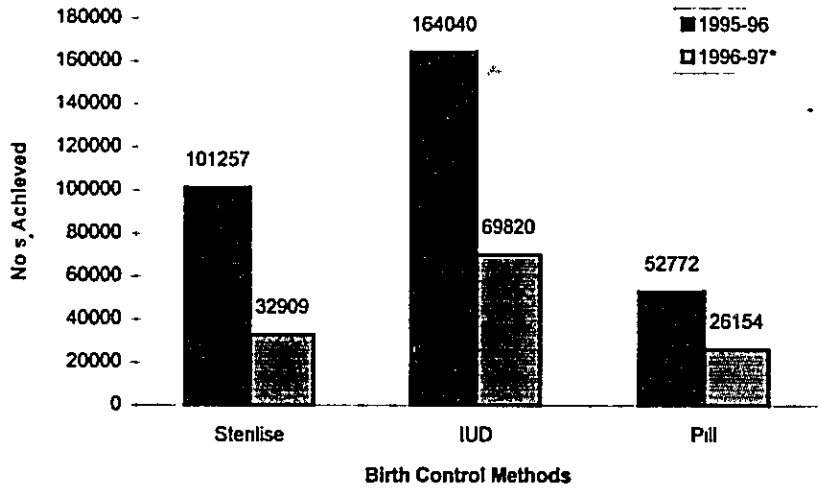

FIGURE 6-3: ADOPTION OF BIRTH CONTROL MEASURES

Note: The results for the fiscal year 1996-97 are upto September 1996.
Conventional contraceptive users totalled 204,728 in the fiscal year 1996-97 upto September 1996 (figures not available for the year 1995-96).

b) Child Health

Infant mortality rate has decreased to 70 per thousand live births. The state government expects it to come down to 60 per thousand live births. The number of children covered by various health programmes for the year 1996-97 upto September 1996 are illustrated in the Figure 6-5.

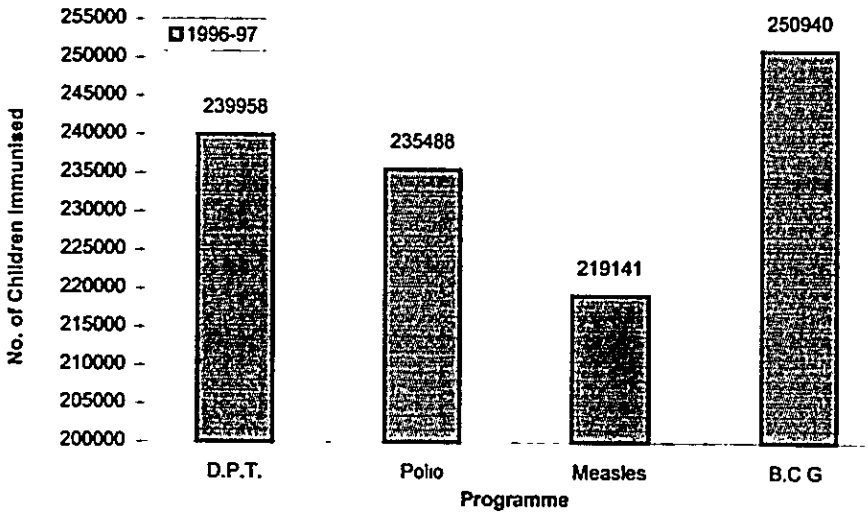

FIGURE 6-4: CHILDREN COVERED BY HEALTH PROGRAMMES

Under the school health programme, medical examination of all primary school children is carried out by state medical teams in the school premises. In the year 1996-97, 959,999 children have been examined.

An intensive drive to examine all primary school children was launched in the state in July, 1996 when approximately 3 million primary school children were examined for various ailments in

over 16,000 schools and those found having diseases were given appropriate treatment or referred to district and sub-division level hospitals. A sum of Rs. 6.24 million was allocated to the Haryana government for this programme.

c) Blindness

In order to reduce the incidence of blindness from 1.11 percent to 0.3 percent by the turn of the century, 20,872 intraoccular cataract operations have been performed in the fiscal year 1996-97 upto September 1996.

d) AIDS

The state government has made it mandatory to test every unit of blood for HIV infection, malaria, VDRL and hepatitis before transfusion. Information dissemination through posters and hoardings are displayed at exhibitions, seminars and symposia to increase awareness of the disease. AIDS fortnights are observed in the month of December every year.

Until now 3 state physicians, 27 district physicians, 1,107 nurses, 877 para-medical staff and 1,533 medical officers have been trained to tackle AIDS related cases.

e) Drugs Quality Control

A drug control programme is being carried out in the state to ensure manufacture and sale of quality drugs. During 1996-97 (upto August 1996), 549 samples were collected, 695 samples were tested. The state has 293 allopathic drug manufacturers, 6 homeopathic drug manufacturers, 71 surgical units, 49 cosmetic units and over 5,200 wholesale and retail sale premises.

f) State Institute of Health and Family Welfare

Under the World Bank project, State Institute of Health and Family Welfare has been set up at Panchkula. The institute started functioning in December, 1991. The main focus of the project is training of man power at various levels in the implementation of health and welfare programme. It constructs various types of buildings and is engaged in supply of medical equipment and expansion of family welfare services in the state. This seven year duration project has a cost of Rs. 4.24 billion.

6.2.3 Health Budget

The state health budget is allotted under the following heads:

- Director General Health Services (DGHS), Haryana
- Medical College, Rohtak
- Family Welfare
- Employee State Insurance
- Ayurveda

The total state budget for the fiscal year 1996-97 was Rs. 992.3 billion, out of which the state health budget was approximately two percent. The allocations under the different heads for the fiscal years 1995-96 and 1996-97 are detailed in Table 6-13.

TABLE 6-13: BUDGET ALLOCATION

	Non-Plan		Plan		Total	
Particulars	1995-96	1996-97	1995-96	1996-97	1995-96	1996-97
DGHS	563,783	637,979	182,680	243,579	746,463	881,558
Family Welfare	0	0	357,408	427,081	357,408	427,081
ESI	94,442	103,808	40,000	40,000	134,442	143,808
Medical College	182,045	202,839	69,458	75,608	251,503	278,447
Ayurveda	74,212	93,594	8,655	12,500	82,867	106,094
Charged	0	10	0		0	10
Total	914,482	1,038,230	658,201	798,768	1,572,683	1,836,998

6.2.4 Medical Resources

In Haryana, every 6,084 persons are served by at least one medical institution and the number of hospital beds per thousand persons is 0.62. The per capita expenditure over the last three decades is depicted in Figure 6-6.

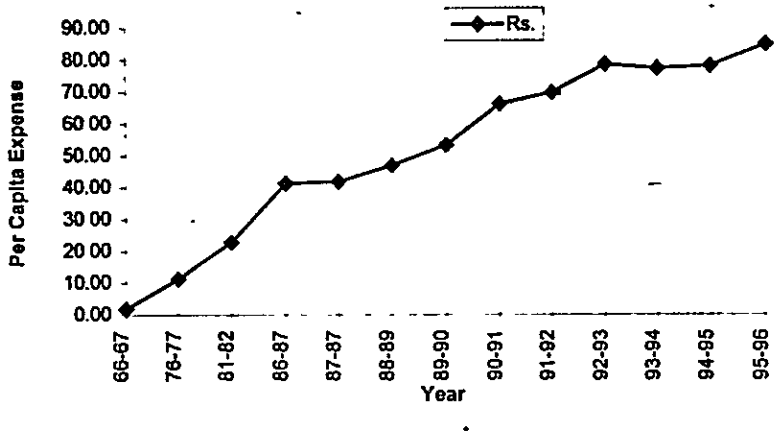

FIGURE 6-5: PER CAPITA HEALTH EXPENDITURE IN HARYANA

The state has a number of medical institutions, which form the health delivery system. The details of the number of institutions and the beds is given in the Table 6-14.

TABLE 6-14: MEDICAL INSTITUTIONS IN HARYANA

Type of Institution	Number of Institutions	Number of Beds
	1996	1996
State public hospitals	43	4,239
State Special Hospitals	12	202
Private Hospitals	20	2,232
ESI Hospitals	4	555
Total - Hospitals	79	7,228
Community Health Centres	63	1,890
Primary Health Centres	398	1,690
State Public Dispensaries	29	63

State Special Dispensaries	25	21
Private Dispensaries	7	6
ESI	69	36
Total - Dispensaries	130	126
Urban Health Posts	16	0
Post partum Centres	37	276
District TB Centres/TB Clinics	15	141
MCH Centres	36	25
Sub-centres	2,299	0

A district-wise distribution of institutions and beds is given in Table 6-15.

TABLE 6-15: DISTRICT-WISE DISTRIBUTION OF HOSPITALS, DISPENSARIES AND BEDS IN HARYANA

District	No. of Hospital	CHC	PHC	Dispensaries	Sub Centres	Beds
Ambala	7	4	23	14	146	712
Bhiwani	5	6	30	15	202	801
Faridabad	5	3	22	31	117	752
Gurgaon	5	4	25	12	155	445
Hissar	10	9	54	21	274	1106
Jind	2	3	27	9	129	482
Kaithal	1	3	22	2	115	300
Karnal	1	4	24	13	115	444
Kurukshetra	1	3	17	4	84	276
Mahendragarh	1	3	20	4	115	318
Panipat	2	1	15	6	100	293
Rewari	2	4	16	4	102	250
Rohtak	9	6	37	17	284	1824
Sirsa	2	2	22	11	139	312
Sonepat	1	4	26	14	110	344
Yamunanagar	5	4	18	13	112	406
Total	59	63	398	190	2299	9065

Source: Director General, Health Services, Haryana

The details of medical and para-medical staff in the government hospitals in Haryana as on March 31, 1996 is given in Table 6-16.

TABLE 6-16: STAFF IN GOVERNMENT HOSPITALS IN HARYANA

Type	Sanctioned	In Position
Doctors - Class I	1,953	7
Dental Surgeons	118	73
Staff nurses	1,650	1,398
Lady Health Visitors	540	442
Pharmacists	957	877
Laboratory Assistant/Technicians	53/633	30/540
Radiographers	140	96
MPW(Male)	2,544	2,162
MPW (Female)	2,706	2,342

The Pt. B. D. Sharma Institute of Medical Sciences, Rohtak is one of the projects being considered for medical equipment funding for a proposed trauma centre by JICA for assistance. Details of the institute are given in Appendix J.

6.3 MAHARASHTRA

Maharashtra literally means "a great country". The shape of this state is that of an irregular pentagon, being 800 km east-west and 700 km north-south. Maharashtra is on the western side of India. It is bound on the west by a long coastal strip, on south by Goa and Karnataka, on south-east by Andhra Pradesh, on north and north-east by the states of Gujarat and Madhya Pradesh. The present state of Maharashtra came into being on May 1, 1960 by the incorporation of three Marathi speaking areas.

With a population of 79 million and an area of 0.31 million sq. km, Maharashtra is the third largest state both in population and size, next only to Uttar Pradesh and Bihar concerning population and to Madhya Pradesh and Rajasthan in respect of size. The density of population is 257 persons per sq. km. This ranges between 16,434 persons per sq. km for Mumbai and 55 persons per sq. km for the tribal district of Gadchiroli. The state has an urban population of 38.69 per cent which is the highest in India. 33 per cent of this urban population is concentrated in Mumbai itself.

The per capita income of the state at current prices is Rs. 9,627 (1992-93), which is the fourth highest in the country, next only to Punjab, Delhi and Goa. The 1991 census indicates that the sex ratio is 934 females per 1,000 males. In the field of literacy, the state is ranked fifth in the country.

Mortality, morbidity and life expectancy are the major indicators of health status. According to the S.R.S. estimates for 1994, the Crude Birth Rate is 24.9, the Crude Death Rate is 7.4 and the Infant Mortality Rate is 54. Life expectancy at birth has reached 64 years and the Maternal Mortality rate is 1-2 per 1,000 live births. The status of these vital indicators is indicated in Table 6-17 and the per cent disease-wise deaths showing the prevalence of major diseases are shown in Table 6-18.

TABLE 6-17: HEALTH STATUS INDICATORS

Indicator	Area	1991	1992	1993	1994
Crude Birth Rate	Rural	28.0	27.1	27.0	26.8
	Urban	22.7	21.5	22.6	22.6
	Combined	26.2	25.1	25.0	24.9
Crude Death Rate	Rural	9.3	9.1	9.3	9.2
	Urban	6.2	5.6	4.7	5.4
	Combined	8.2	7.9	7.2	7.4
Infant Mortality Rate	Rural	69.0	67.0	63.0	67.0
	Urban	38.0	40.0	31.0	36.0
	Combined	60.0	59.0	50.0	54.0
Maternal Mortality Rate		1-2	1-2	1-2	1-2
Life Expectancy		64 (1991-96)	64 (1991-96)	64 (1991-96)	64 (1991-96)

TABLE 6-18: PERCENTAGE OF DEATHS DISEASE-WISE IN MAHARASHTRA

(in %)

Disease	1981	1991	1992
Infectious & Parasitic Diseases	20.95	16.68	16.67
Neoplasms	4.52	4.32	4.52
Endocrine, Nutritional & Metabolic & Immunity disorders	3.13	2.33	2.60
Diseases of blood and blood forming organs	1.53	1.94	2.78
Mental Disorders	0.07	0.12	0.11
Diseases of nervous system and sense organs	3.16	2.24	2.32
Diseases of the circulatory system	16.14	20.83	24.29
Diseases of the respiratory system	14.27	10.73	10.20
Diseases of the digestive system	4.55	3.93	4.54
Diseases of the genitourinary system	1.57	0.81	0.76
Complication of pregnancy, child birth and the pueperium	0.71	0.60	0.49
Diseases of the skin and subcutaneous tissues	0.15	0.12	0.09
Diseases of muscoskeletral system and connective tissue	0.06	0.04	0.04
Congenital anomalies	1.16	0.40	0.43
Certain conditions originating in pre-natal period	10.61	5.61	6.21
Symptoms signs and ill-defined conditions	7.52	21.16	18.65
Injury and poisoning	9.9	8.12	8.77
Total no. of causes	**104490**	**144340**	**134883**

Source: Health Statistics of Maharashtra, 1995 (Director of Health Services, Chief registrar of Births and Deaths, Maharashtra state, Mumbai)

6.3.1 Organisation

The structure of the health department in the state is depicted in the following exhibit.

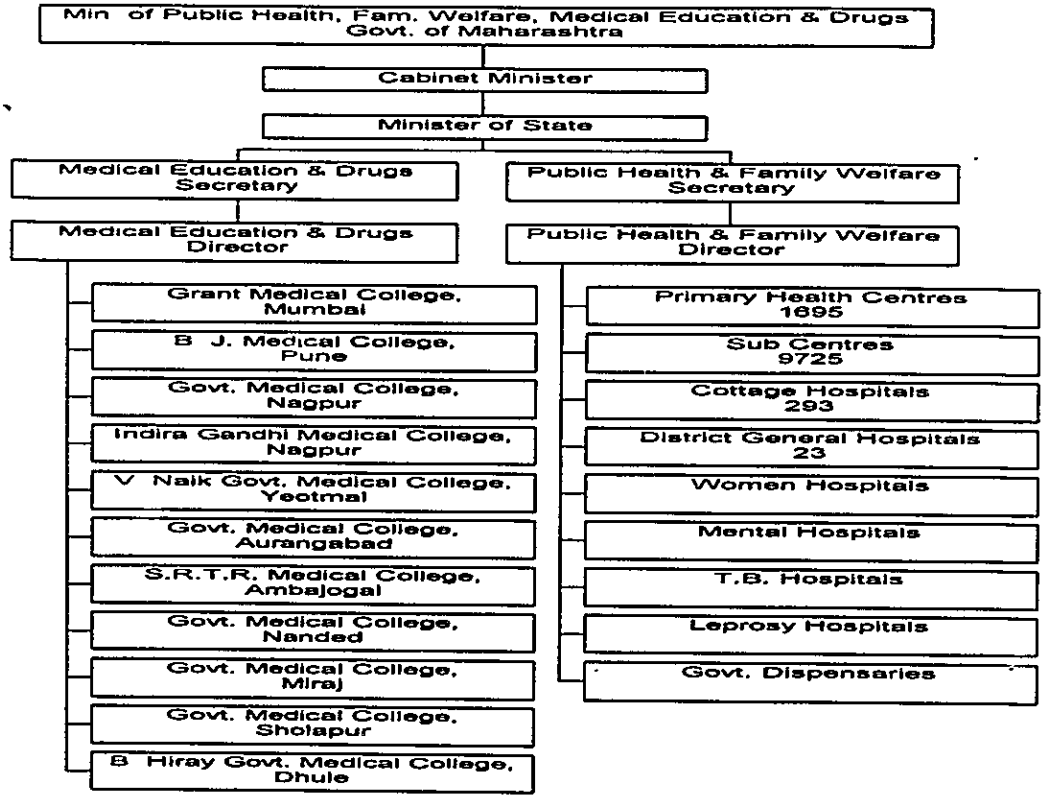

FIGURE 6-6: ORGANISATION STRUCTURE OF THE STATE HEALTH DEPARTMENT OF MAHARASHTRA

6.3.2 State Health Plan

The national health policy formulated by the Government of India is the guiding principle for the health plan of the Public Health Department. The main thrust of the Eighth Five Year Plan was on consolidating the foundation built in the past and correcting the deficiencies that were noticed. The state's approach to the Eighth Five Year Plan was based on the following assumptions:

1. Providing health services is an important obligation of the state in the context of the slogan "Health For All by 2,000 AD". Networking with the private sector will be done through provision of suitable incentives and financial assistance.
2. The policy of the government in rectifying the regional imbalance will continue in an attempt to provide equity of distribution.
3. The structure and level of Central assistance for the Centrally Sponsored Schemes will continue unchanged without any significant shifting of financial burden on the states.

On the basis of the above assumptions, the following major thrust areas were identified by the state for the Eighth Plan.

1. Consolidation of the existing health infrastructure and expansion only in the difficult, inaccessible, tribal areas, special component plan areas and certain uncovered areas.
2. Strengthening of the Minimum Needs Programme
3. Continuation of the Family Welfare Programme

4. Provision of adequate health facilities to the urban slums

The state has performed well in comparison to other states. However, with the emphasis in the public health department shifting from curative to preventive and promotive services, questions with respect to sustainability need to be answered. Major sustainability issues that all programs meet with can be grouped as follows:

- Continued delivery of intended benefits
- Creation of long term institutional capacity
- Maintenance of physical infrastructure
- Continued financial and administrative support

6.3.3 Health Budget

The expenditure on health symbolises the emphasis and the priority, the health sector receives in the overall planning process. The financial support for health is provided at three levels:

- the Public Sector comprising Central and State government, Municipal and local bodies:
- the Private sector which includes private organisations, corporate bodies providing health care to their employees and the non-governmental organisations; and
- the household spending on health.

The Table 6-19 shows a comparison of the state health budget with the overall budget.

TABLE 6-19: STATE BUDGET AND PUBLIC HEALTH BUDGET COMPARISON FROM 1991-92 TO 1995-96

(Rs. Million)

Year	State Budget	Public Health Budget	Public Health Budget as a %age of Total Budget
1991-92	105,498.1	3,457.5	3.28
1992-93	144,953.7	4,026.0	2.78
1993-94	163,040.0	4,331.1	2.66
1994-95	192,187.2	4,765.5	2.48
1995-96	217,193.6	5,320.1	2.45

As is evident from the above table, there is a decline in the budget for public health as a percentage of the total budget of the state. When adjusted to current prices, this decline becomes even more significant.

TABLE 6-20: PLAN AND NON-PLAN BUDGET FOR HEALTH

(Rs. Million)

	1994-95	1995-96	1996-97	1994-95	1995-96	1996-97
	Non-Plan			Plan		
Medical Educ. & Drugs Deptt.	1764.05	2121.46	1883.19	173.926	330.047	245.799
Public Health Department	3903.749	4167.62	4094.03	1598.991	2152.675	2451.973

Note: Figures for 1994-95 are actuals.
Figures for 1995-96 are revised estimates.
Figures for 1996-97 are budget estimates.

Table 6-20 indicates that there is a decrease in the non-plan component of the budget for both the Medical Education and Drugs and the Public Health departments. Analysis indicates that this is primarily due to a decrease in the Petroleum, Oil and Lubricants, Office Expenses and Motor Vehicles heads, with decrease in the salary head also contributing to a small extent.

Within the health sector, the allocation for 4 major programmes is 83.6 percent. These four programmes are:

- Minimum Needs Programme (43.2%)
- Family Welfare Programme (17%)
- Hospitals and Hospital related programmes (14.5%)
- National Malaria Eradication Programme (8.8%)

As much as 61.35 percent of the programme allocation is expended on salary and other allied objects. The expenditure incurred on health by the other local bodies is summarised in the following table.

TABLE 6-21: EXPENDITURE ON HEALTH BY LOCAL BODIES (1993-94)

(Rs. Million)

Civic Bodies	Total Exp.	Exp. on health related heads		As % of total exp.
Grampanchayats	1,238	Health & Sanitation	304	5
Zilla Parishads	18,870	Health & Medical Services P.H. Engineering	1427 553	10.5
Municipal Councils A type	30,49	Public Health Water Supply Drainage	92 334 42	15.4
Municipal Councils B type	1,677	Public Health Water Supply Drainage	50 177 10	14.1
Municipal Councils C type	1,525	Public Health Water Supply Drainage	47 156 8	13.9
Municipal Corporations	25,000	Public Health Water Supply Drainage	1375 2977 1245	22.4
Cantonment Boards	293	Public Health Water Supply Drainage	18 7 3	9.5
All Civic Bodies	51,652	Health related activities	8825	17

(Source - Economic Survey of Maharashtra 1994-95)

The expenditure on health by village panchayats and zilla parishads amounts to Rs. 2284 million and that by the municipal bodies and cantonment boards totals upto Rs. 6541 million. Considering that the rural population is 1.5 times more than the urban population, this disparity is striking.

6.3.4 Medical Resources

Health Institutions

Although the state has nearly achieved the targets that were set for the creation of infrastructure, as indicated in Table 6-22, accessibility and population coverage are two issues that are proving to be deterrents to effective delivery of the desired benefits. This is indicated in Table 6-23. Scarcity of road networks, the topography of the state and small village sizes have accentuated the problem further.

TABLE 6-22: NUMBER OF INSTITUTIONS EXISTING

Year	CHC	PHC	Sub centre	PHU	MHU
Upto 1991	290	1,671	9,364	75	23
1991-92	291	1,674	9,377	90	23
1992-93	292	1,680	9,377	151	51
1993-94	292	1,681	9,377	151	51
1994-95	295	1,695	9,725	161	59
Upto Oct. 95	295	1,695	9,725	169	59

TABLE 6-23: HEALTH INFRASTUCTURE: COVERAGE AND ACCESSIBILITY

Unit	No. In Position	Average No. Of Villages	Average Population	Max. Radial Distance (km)
Sub Centre	9,725 (1,872)	4.20	5,080	3.20
Primary Health Centre	1,679 (285)	23.38	28,551	7.55
Community Health Centre	295 (53)	132	164,000	18

Note: Figures in parenthesis indicate number in tribal areas

The availability of health institutions in various districts of the state is outlined in the following Table 6-24.

TABLE 6-24: AVAILABILITY OF HEALTH INSTITUTIONS IN THE DISTRICTS OF MAHARASHTRA

No.	District	SCs	PHUs	MHU	PHCs	CHCs	Wom./Gen. Hos		Dist. Hos	Med. Col Govt./Pvt	
1	Thane	470(314)	23(21)	4(4)	77(50)	12(8)		1	1		1
2	Raigad	277(19)	4		53(3)	11(1)			1		2
3	Ratnagiri	374			67	10			1		
4	Nasik	530(256)	10(10)	7(7)	97(46)	18(8)			1		1
5	Dhule	431(294)		11(11)	81(52)	12(8)				1	
6	Jalgaon	397(16)			77(2)	15(1)			1		
7	A'nagar	485(66)	5(5)	1	88(10)	12(2)			1		1
8	Pune	501(58)	19(5)	2	83(6)	14(1)				2	1
9	Solapur	329	8		66	10				1	
10	Satara	309	5		69	12			1		1
11	Kolhapur	371	7		67	13			1		1
12	Sangli	270	2		57	9				1	
13	S'durg	246			38	7			1		
14	A'bad	248		1	43	7				1	1
15	Jalna	171	2		33	6			1		
16	Beed	253	2		45	8			1	1	

17	Nanded	374(60)	11(7)	5(5)	62(13)	12(3)				1	
18	Parbhani	351	8		51	9			1		
19	O'bad	204			41	7			1		
20	Latur	234	1		44	8			1		1
21	Akola	326	3	3	52	8	1	1	1		
22	Amravati	320(95)	12(6)	8(8)	56(11)	9(2)	1		1		1
23	Yeotmal	374(60)	2(1)	2(2)	61(17)	13(3)				1	
24	Buldhana	265			47	7		2	1		
25	Nagpur	300(22)	1	4(4)	45(3)	8(1)	1			2	2
26	Bhandara	427(115)		4(4)	65(19)	12(4)	1		1		
27	C'pur	336(104)	1	7(6)	58(8)	10(2)			1		
28	G'chiroli	372(372)	34(34)	3(3)	45(45)	9(9)			1		
29	Wardha	180	7		27	7			1		2
30	Bombay									1	5
		9725 (1872)	167 (89)	62 (54)	1695 (285)	295 (53)	4	4	21	12	20

Note Figures in parenthesis indicate institutions in tribal areas. Information pertaining to the extent of coverage and accessability of the infrastructure in positionis indicated below:

With the creation of new infrastructure and the implementation of new schemes, the number of health personnel available in the state has increased considerably, the details of which are provided in the following Table 6-25.

TABLE 6-25: HEALTH PERSONNEL AVAILABLE

Sr. No.	Category	Number
1	Medical Officers	4,537
2	Health Assistants (Male)	3,521
3	Health Assistants (Female)	2,853
4	Multipurpose Health Worker (Male)	7,269
5	Multipurpose Health Worker (Female)	11,407
6	Village Health Guides	37,732
7	Trained Traditional Birth Attendant	37,273

The doctor population ratio in the state was at 86/100,000 in 1989.

Number of Hospitals and Beds

The state has achieved the norms that were laid out for bed population ratio as indicated by Table 6-26 below. To be noted is that, in this context, the contribution made by the private and the voluntary agencies reaches approximately 45 percent. However a distinct disparity exists between the bed population ratio for the urban and the rural areas, thus indicating a need to improve the ratio in the rural areas of the state.

Comparisons between the number of hospitals and beds Table 6-27.

TABLE 6-26: NUMBER OF HOSPITALS AND BEDS AS ON 01/01/1992

Ownership	Maharashtra		India	
	Hospital	Beds	Hospital	Beds
Government	693	48,986	4,411	411,868
Local Bodies	92	10,955	346	23,347
Private & Voluntary Agencies	1,391	70,875	6,417	206,888
Total	2,176	130,816	11,174	642,103
Population served per Bed		657		1,324

TABLE 6-27: NORMS AND AVAILABLE BEDS IN THE STATE

(Beds/1,000 Population)

	Beds in the Public Sector				Private Beds	Total
	Primary Level	Secondary Level	Tertiary Level	Total		
Planning Commission Norms	0.10	0.47	0.10	0.67	0.33	1.00
Existing in the State	0.14	0.19	0.25	0.58	0.95	1.52

The Private Medical Practitioners and Voluntary Agencies in the State

A large number of hospitals, dispensaries and doctors are operating in the state. Approximately 62 percent of the hospitals in Maharashtra belong to the private sector. The private health care system in the state comprises the following types of providers on the basis of the ownership criterion:

- Non-Profit oriented - Voluntary, Trust and Mission
- Profit oriented - organised private suppliers
- Private Informal sector - traditional healers

The private sector in the state deserves focus due to the large number and inequitable distribution of the medical practitioners. This is important, due to the high dependence of the public on the services provided by the private sector as indicated in Table 6-28.

TABLE 6-28: SOURCE OF OUT PATIENT TREATMENT IN MAHARASHTRA (%)

	Public Hosp.	PHC	Public Disp.	Pvt. Hosp.	Nursing Home	Charitable Hosp.	ESI/ AMA	Pvt. Doctors	Others
Rural	17	8	1	16		0.4	0.1	57	0.9
Urban	18	0.6	2	8	0.04	0.5	0.6	70	0.4

Details on the Voluntary Organisations (VOs) presently working in the state is as follows:

1. 59 blood banks are owned by VOs
2. 62 VOs have been receiving grant in aid under the Family Welfare Programme
3. 55 VOs are engaged in antileprosy work
4. 45 eye banks have been established by VOs in the state

Insurance

The Employee State Insurance Scheme (ESIS) in the state covers a very small percentage of the organised labour. Private health insurance on the other hand covers about 7.5 percent and 17.5 percent of the rural and urban area for inpatient care. Analysis has revealed that the insured population is much more likely to use the government services than the general population.

It is felt that there is scope to strengthen the insurance system in the state. This needs to be considered in the context of the large rural and poor population of the state which does not have access to even basic primary health care services.

6.3.5 . Health Programmes

Health programmes that are implemented in the state can be categorised as follows:

- programs funded or sponsored by the Central government,
- State sector programs,

and are listed below.[1]

A. Centrally Sponsored (100%)

- Family Welfare Programme
- National Leprosy Eradication Programme
- Goiter Control Programme
- AIDS Control Programme
- National Programme for Control of Blindness
- Establishment of Certain Food Laboratories

B. Centrally Sponsored (Partial)

- National Malaria Eradication Programme
- National Tuberculosis Eradication Programme
- National Guinea Worm Eradication Programme
- National Filaria Eradication Programme

C. State Sector Programmes

- Minimum Needs Programme
- Hospital Services
- Other Programmes - Cholera Control

D. Internationally Funded

- UNFPA assisted Area Project for five districts (Area Project II)
- World Bank assisted IPP in Bombay Municipal Corporation
- World Bank assisted health education project under rural water supply in ten districts
- UK bilateral assisted Health Education Project in three districts
- World Bank assisted AIDS Control activities
- World Bank assisted cataract blindness control project

[1] Details vis-à-vis objectives and goals, implementation and delivery, funding pattern, targets, performance of all the Health programmes that have been listed is available in the document titled "Health Status - Maharashtra State, Public Health Department, Government of Maharashtra, pp 20-45 "

E. Support Activities

- Public Health Laboratory Services
- Health Education
- Health Intelligence and Vital Statistics
- State Health Transport Organisation
- Bureau of Nutrition
- Health Management Information System

The state of Maharashtra has 12 government and 20 private medical colleges.

The Sir J. J. and Cama and Albless hospitals in Mumbai are being considered by JICA for assistance. The two hospitals are teaching hospitals of the Grant Medical College. Cama and Albless hospital is an exclusive women and children hospital in the state and is a training ground for students in gynaecology and obstetrics. Details of the two hospitals are given in Appendices G and H, respectively.

6.4 ORISSA

Orissa lies on the eastern coast of India. The state is located between West Bengal and Andhra Pradesh and is bordered on the east and south east by the Bay of Bengal. The Eastern Ghats lie to the west of Orissa and the states of Madhya Pradesh and Bihar are situated to the far west and north. The state has an area of 155,844.96 sq. kms and lies between 17.48° and 22.34° north latitude and 81.24° and 87.29° west longitude.

Orissa has 4.74 percent of the total land area of India which is 155,707 sq. kms. and accounts for about 3.73 percent of the country's total population which is enumerated at 31,512,072 comprising 15,532,166 females and 15,979,904 males according to the 1991 census figures. The sex ratio for the state as a whole is 972 females per 1,000 males. The literacy level of the state as per the 1991 census is 48.53 percent. The male and female literacy rate in Orissa is 63.1 and 34.7 percent respectively in 1991. The total literacy campaign is underway to achieve cent percent literacy by the end of the Eighth Plan. The population comprises 16.70 percent scheduled class and 22.21 percent scheduled tribes, as compared with the 16.48 and 8.08 percent respectively in India.

The per capita income of the state at current prices is Rs. 3,180 (1991), as compared with Rs. 4,934 for India. The rate of urbanisation is 13.4 percent as compared with 25.7 percent found in the country.

The health status of Orissa compares poorly with the rest of the country. The Infant Mortality Rate, Maternal Mortality Rate and the Crude Death Rate are adverse as compared with the corresponding figures for the country. The birth rate for Orissa is 272 per 1,000 population according to SRS estimates of 1993. The total fertility rate according to the National Family Health Survey is 2.9. The total fertility rate of Orissa is lower than the all India level. The fertility of the state has been declining over the years. The rural fertility is higher than the urban fertility. The Crude Birth Rate in 1993 is 27.8 and 23.2 for rural and urban areas respectively. The Maternal Mortality Rate is also very high, being 6 per hundred live births. The Infant Mortality Rate for Orissa is the highest in India as indicated by the SRS data and the National Family Health Survey.

The latest status of these vital indicators is provided Tables 6-29 and 6-30.

TABLE 6-29: HEALTH STATUS INDICATORS

Indicator	Area	Orissa		India	
		1993	1994	1993	1994
Crude Birth Rate	Rural	27.7	28.8	30.3	30.5
	Urban	23.1	22.5	23.5	23.1
	Combined	27.2	28.0	28.5	28.6
Crude Death Rate	Rural	13.0	11.7	10.5	10.1
	Urban	6.1	7.2	5.7	6.5
	Combined	12.2	11.1	9.2	9.2
Infant Mortality Rate	Rural	115	108	82	79
	Urban	69	65	45	51
	Combined	110	103	74	73

TABLE 6-30: OTHER HEALTH STATUS INDICATORS

Life Expectancy at Birth (1991-96)	Orissa
Male	53.6
Female	53.1
Total Fertility Rate	2.9
Doctor Population Ratio (1996)	1:7400
Bed Population Ratio (1996)	1:2500
ANM Population Ratio (General population) (1996)	1:5000
Nurse Bed Ratio	1:6
Population served Per Institute (1996)	21,800
Area Served per Medical Institution (1996)	101 sq. km
Nurse Population Ratio (1996)	1:16000
Nurse Doctor Ratio	1:2

6.4.1 State Health Plan

Health has been defined as a 'state of complete physical, mental and social well-being and not merely absence or infirmity.' Several factors including nutrition, personal hygiene, family life, collective environmental conditions and access to social service, including health and medical care. A strategy of social development of which primary health care was adopted as an important component. The 30th World Health Assembly (1977) resolved that the main social target is 'the attachment of a level of health by all citizens which will permit them to lead a socially and economically productive life'. Consequently, the declaration of Alma-Ata adopted in 1978 clearly states that the objective is to achieve 'Health for All' by 2000 AD. 'Health for All' means ensuring basic health facilities within the reach of every one.

The aim and objective of the National Health Policy is to provide health services for the un-privileged groups and rural population through a network of Medical Institutions such as hospitals, dispensaries, PHCs and Additional PHCs located throughout the state both in rural and urban areas. The Health and Family Welfare Department of the Government of Orissa has been

implementing the National Policy since its proclamation in 1983 and is striving to achieve the national health goals by 2000 AD. The two most important programs adopted in the state are outlined below.

- The Leprosy Eradication Programme is being implemented in the state with 54 leprosy eradication units, 6 modified leprosy control units, 16 leprosy clinics, 2 upgraded urban leprosy centres and 16 urban leprosy centres.
- Tuberculosis is another disease which needs to be controlled in the state. Under TB control programme, 12 TB centres are assisted with adequate and trained personnel for catering to the needs. Besides detection and treatment of TB cases are being taken up through Anti TB Demonstration Programs.

However, it is to be noted that the State health department is operating amidst the problems of socially and economically backward population, inaccessible terrain, perennial problem of flood, cyclone and drought, endemic situation of certain diseases and poor economic status. Hence, the available resources are inadequate to address the health needs of the state. At the same time, the Government of Orissa is specifically concerned with the measures to improve the health status of its people and is laying emphasis on preventive, curative and promotive health care. It has set the following major objectives to be achieved.

- Reinforcement of the primary health care system by improving the facilities and services at the sub-centre and Primary Health Care level.
- Removing the shortfall of nurses, pharmacist, technicians, and Medical Officers with a view to rendering of health devices in the state more effectively.
- Strengthening the referral system at Primary, Secondary and Tertiary level for better case management and best use of the available resources at each level.
- Reinforcing health care services in the selected underservices districts by providing mobile health units and need based health services.
- Creating centres of excellence equipped with modern, advanced and sophisticated, diagnostic and treatment facilities with an objective to provide quality health care.
- Strengthening preventive health care facilities and improvement of quality of health care, including rehabilitation of physically and mentally handicapped segment of the population.

6.4.2 Health Budget

The expenditure on health symbolises the emphasis and the priority the health sector receives in the overall planning process. The financial support for health is provided at three levels:

- the Public Sector comprising of Central and State government, Municipal and local bodies
- the Private sector which includes private organisations, corporate bodies providing health care to their employees and the non-governmental organisations
- the third source is the household spending on health.

Table 6.31 shows a comparison of the state health budget with the overall budget.

TABLE 6-31: ORISSA BUDGET AND PUBLIC HEALTH BUDGET COMPARISON (1990-91 TO 1994-95)

(Rs. Million)

Year	State Budget	Public Health Budget	Public Health Budget as a % of Total Budget
1990-91	51.80	1.87	3.61
1991-92	67.40	1.98	2.92
1992-93	74.27	2.22	2.98
1993-94	81.10	2.40	2.96
1994-95	91.65	2.51	2.74

It is evident from the figures that the health budget forms a miniscule part of the total state budget. In addition the fall in percentage over the years is a disturbing trend.

The per capita expenditure on health by Orissa has been much lower when compared with all India figures, as is evident from the Table 6.32.

TABLE 6-32: ORISSA PER CAPITA EXPENDITURE ON HEALTH

(In Rupees)

Year	Orissa	India
1991-92	48.48	60.13
1992-93	52.05	70.15
1993-94	52.05	79.4
1994-95	60.4	85.1

There are three medical colleges in the state with attached hospitals. These are:

- SCB Medical College, Cuttack
- VSS Medical College, Burla
- MKCG Medical College, Berhampur

The SCB Medical College at Cuttack is the main referral hospital in the state. The hospitals offer limited specialised treatment facilities in Neurology, Cardiology and Opthalmology. These facilities are rudimentary in character as the related clinics are ill equipped.

The three medical colleges are affiliated to the universities in the respective districts. These institutions conduct courses for undergraduate (MBBS) and post graduate degrees and provide some degree of specialised and super specialised medical care to the people of the state. Tables 6.33 and 6.34 summarise the available seats in the respective graduation and post-graduation courses in the medical colleges and nursery schools of Orissa. Table 6.35 enumerates the post-graduate discipline wise seats in the three medical colleges of Orissa.

TABLE 6-33: INTAKE FOR MBBS/BDS COURSES IN MEDICAL COLLEGES OF ORISSA

	MBBS	BDS
SCB Medical College, Cuttack	107	20
VSS Medical College, Burla	107	-
MKCG Medical College, Berhampur	107	-

TABLE 6-34: SEAT STRENGTH FOR PG AND HIGHER SPECIALISED COURSES

	Total	SCB	VSS	MKCG
Post Graduate	243	108	66	69
DM Cardiology	2	2		
MCH Neurosurgery	2	2		
Other Courses				
General Nursing at School of Nursing	200	100	50	50
College of Nursing, Berhampur				
4 Year Basic B Sc. Nursing				10
2 Year PV BSc Nursing				20
1 year diploma in Public Health Nurse				20

TABLE 6-35: DISCIPLINEWISE PG SEATS IN MEDICAL COLLEGES IN ORISSA

Discipline	GCB	VSS	MKCG
Anatomy	2	1	1
Physiology	2	1	1
Biochemistry	2	1	1
Pharmacology	2	2	2
FMI	2	1	2
SPM	2	2	2
Pathology	4	4	2
Gen. Medicine	14	12	12
Gen. Surgery	14	12	12
Orthopaedics Surgery	4	2	2
O & G	16	10	10
Opthalmology	4	4	6
ENT	2	2	2
Paediatrics	14	6	6
Skin and VD	4	-	1
TB and CD	4	2	-
Psychiatry	2	-	-
Radio diagnosis	4	2	1
Radiotherapy	4	-	-
Anaesthesiology	6	2	4
Microbiology	-	-	2
Total	108	66	69

There is a need in the state to establish additional training facilities for para medical staff. The state plans to set up a college of nursing at Bhubaneswar and to expand the intake capacity of the nursing schools at Cuttack, Burla and Berhampur. Plans are also underway to establish a School of Physiotherapy. However, most of these plans have not been implemented due to paucity of funds.

The Capital Hospital in Bhubaneswar is under consideration by JICA for funds for medical equipment. Further details on the hospital are given in Appendix L.

The distribution of in-door beds in the state of Orissa is given in Table 6-36.

TABLE 6-36: DISTRICT-WISE DISTRIBUTION OF BEDS IN ORISSA

District	MCH	DHqH	SDH	Other Hospital	CHC	PHC	PHC(n)	Total
Angul		62	64	14	90	42	0	272
Balasore		217	50	44	108	48	0	467
Bhadrak		121	0	2	96	6	0	225
Bolangir		170	80	28	94	60	0	432
Baragarh		35	0	12	92	54	0	193
Boudh		36	0	24	0	18	0	78
Cuttack	1266	110	66	396	80	54	0	1972
Deogarh		60	0	6	12	18	0	96
Dhenkanal		159	29	59	100	24	0	375
Gajapati		86	0	36	48	24	0	194
Ganjam	851	137	116	103	230	90	0	1575
Jagatsingpur		34	0	10	78	24	0	150
Jajpur		71	0	28	78	36	0	223
Jharsuguda		60	0	6	32	24	48	128
Kalahandi		145	43	109	124	48	4	483
Kendrapada		110	0	0	126	12	10	248
Keonjhar		160	82	52	172	36	6	502
Khurdha		367	0	78	78	42	14	581
Koraput		73	100	32	94	54	0	353
Malkangiri		75	0	45	92	24	0	236
Mayurbhanj		243	140	52	226	90	16	757
Nuapada		56	0	10	78	12	0	156
Nawarangpur		57	0	76	80	30	0	243
Nayagarh		68	0	333	64	24	10	499
Phulbani		126	50	32	126	36	0	370
Puri		230	0	255	94	36	0	615
Rayagada		49	0	35	100	36	0	220
Sambalpur	842	143	34	40	126	36	6	1227
Sonepur		68	0	10	78	12	0	168
Sundargarh		176	74	132	170	60	14	626
Total	**2959**	**3504**	**928**	**2059**	**2966**	**1110**	**138**	**13664**

Source: Health Statistics of Orissa, 1996 (State Bureau of Health Intelligence, Directorate of Health Services)-Figures for March 1996.

6.5 UTTAR PRADESH

Uttar Pradesh is the most populous and the fourth largest state in the country. The state has a much higher pressure of population than any other state of the country. UP comprises more than 16.4 per cent of the total national population while it just has a 9 per cent share in the geographical area of the country .

The economy of the state is moving ahead but at a slower pace as compared to the national economy. As a result, despite increase in total state domestic product, both at current as well as real terms i.e., at constant prices of 1980-81, its contribution in national domestic product has declined from 12.7 percent in 1980-81 to 11.9 percent in 1991-92, at current prices and 12.1 percent at 1980-81 prices. Similarly, in spite of increase in per capita income, the gap between

per capita state and national incomes has widened from Rs. 352 in 1980-81 to Rs. 1,517 (at current prices) in 1991-92.

Socio-economic development of the country is dependent on health and human resource development of the country. Decentralised health awareness programmes are being run by the government to promote awareness and help prevent various diseases amongst the population.

6.5.1 Organisation

State Health Policy is commensurate with the National Health Policy. The entire responsibility of the sector is of the Health Minister at the central government. Health being a state subject, hence the execution and progress in the sector are direct responsibility of the state. Under the Chief Secretary of the state, Secretary - Health, Medical and Family Welfare is responsible for the medical and health sector of the state. Under the Secretary are Director level appointees from the medical cadre. The organisation structure indicating the administration related hierarchy is provided in Figure 6.8.

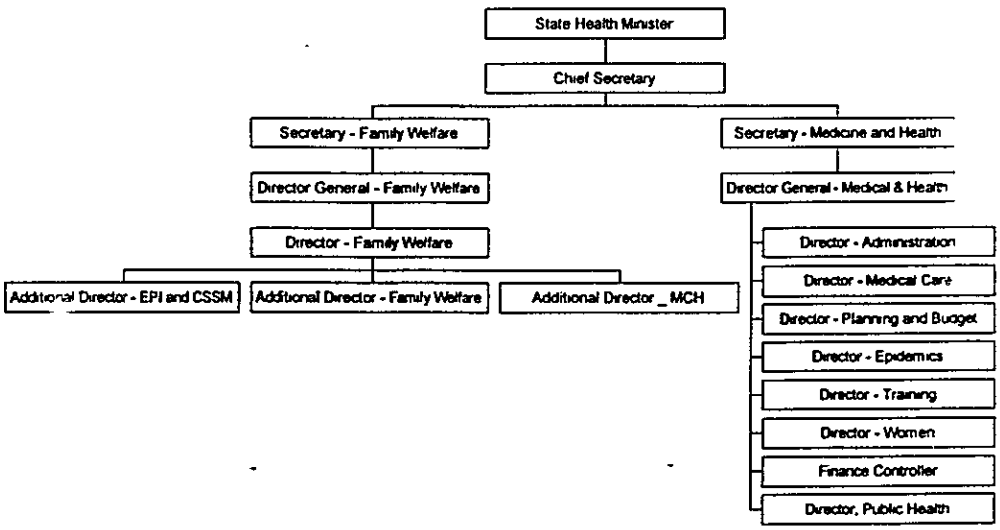

FIGURE 6-7: ORGANISATION STRUCTURE OF THE STATE HEALTH MINISTRY IN UTTAR PRADESH

6.5.2 Relationship with GOI

The GOI has various national health related schemes. The state is responsible for implementation of these national schemes. The state budget has a provision for expenditures to be made under these schemes as the payment is based on expenses incurred for the scheme which are later reimbursed by the central government.

The central government has laid down the national health policy in 1983, the prime objective being to provide health for all (HFA) by the year 2000.

The central government has established a 20 point programme to give thrust to areas and sectors that require immediate attention. The 20 point programme for the country defined by the central government has two heads allocated for the improvement of health sector. It strives to provide health for all through better medical care facilities, efforts for eradication of malaria, leprosy, tuberculosis, goitre and blindness, immunisation of women and children for prevention of certain diseases, improve sanitation facilities in the rural areas and finally, assistance to disabled would be provided to every citizen of the country. The 20 point programme also addresses the

population problem by keeping objectives of two children per family, to educate parents on their responsibilities towards their child, to reduce infant mortality rate and to provide better mother and child health care.

a. Health Sector in Uttar Pradesh

The average life expectancy was 27 years before Independence. This has now increased to 58.6 years. This has been possible mainly due to eradication of communicable diseases like smallpox and plague and effective control of Malaria, Filaria, Cholera, TB and other ailments. Remarkable progress has been made in production of drugs, vaccines, sera and hospital equipment. As a result, the mortality rate per thousand population has been reduced from 27.4 in 1951 to 12.0 in 1990. However, the high rate of population growth will necessitate provision of additional health care facilities. Thus, an important goal is to provide health for all by the year 2000 AD. The state is fully committed to achieve this goal with the available resources and all-out efforts are being made in this direction.

The following comparative figures of Birth and Death rates show that sincere and concerted efforts have been made to check birth and death rates in the state. Further reduction in these indices is likely during the Eighth Plan Period.

TABLE 6-37: BIRTH AND DEATH RATES

Particulars	1981	1986	1990	1996-97 Targets
Birth rate per 1,000 live birth	39.6	37.5	35.6	28
Death rate per 1,000 population	16.3	14.6	12	10.6

During the Eighth Plan period, implementation of UIP (Universal Immunisation Programme) plus package of services for young children and immunisation with other basic MCH interventions have been integrated together as Child Survival and Safe Motherhood (CSSM) programme. The programme for young children will include new born care, primary immunisation, administration of Vitamin A, control of acute respiratory infections and control of diarrhoeal diseases. The programme for mothers will include antenatal care, immunisation against tetanus, control of anaemia during pregnancy, check ups and early detection of complications, essential obstetric care for all women and promoting spacing of birth.

The goal of the CSSM project is to support National Family Welfare programme specially maternal and child health component during the Eighth Five year plan period. There will be four specific project objectives:

i. To expand and improve the quality of care and universalise a set of child survival and safe motherhood programmes
ii. To develop and initiate a safe motherhood programme
iii. To provide support to existing institutional systems to enable them to deliver more effectively child survival and safe motherhood services
iv. To achieve self sufficiency in production of all essential supplies required for the intervention for child survival and safe motherhood and the manufacture of essential equipments for the programme

The GOI have fixed the following targets under the project:

- To eradicate tetanus in infants by 1995
- To immunise 90 percent children against 6 fatal diseases by 2,000 AD

- To eradicate polio by 2,000 AD
- To reduce incidence of measles by 90 percent by 2,000 AD

The state government targets fixed under the Eighth Plan period, for the CSSM project, are given in Table 6.38.

TABLE 6-38: TARGETS

Particulars	Present Status	Targets
IMR per 1,000 live births	118	80
MMR per 1,000 live births	5.5	4.0
CDR per 1,000 live births	165	125
Percentage of low weight infant at Births	20%	10%

There has been substantial increase in the population of the State despite adoption of massive family planning and welfare programmes. Greater emphasis is being focused on reducing the birth rate by introducing effective and safe spatial methods and permanent methods wholly on voluntary basis. Integrated child and women welfare programmes which will improve the health status of women and children, raise their educational level and check morbidity and mortality effectively, are proposed to be taken up in the state.

During the Eighth Five Year Plan, the Minimum Needs Programme (MNP) has been assigned top priority. These programmes are proposed to be taken up extensively in rural areas. The norms for establishment of sub-centres, Primary Health Centres (PHC) and Community Health Centres (CHC) are as under:

i. One trained *Dai* at village level for every 1,000 rural population
ii. One sub-centre consisting of a female health worker and a male Heath worker per 5,000 rural population in Plains and 3,000 rural population in Tribal and Uttaranchal areas.
iii. One PHC for every 30,000 rural population in the Plains and 20,000 rural population in the Tribal, Uttaranchal and difficult areas or over 6 sub-centres
iv. One Community Health Centre per one lakh rural population block or on every four PHC

Development and strengthening of rural health infrastructure through a three tier system of sub-centres, PHCs and CHCs for delivery of health and family welfare services to rural community has been a continuing activity of health planning. But lack of buildings, shortage of manpower, an inadequate provision of drugs constitute major impediments to full operationalisation of these units. To remove these impediments, consolidation and operationalisation rather than major expansion of the network of sub-centres and PHCs is being undertaken. This would be achieved through:

i. Strengthening of physical facilities including completion of buildings of the centres and staff quarters
ii. Provision of essential equipments, drugs and manpower according to prescribed norms
iii. Filling up of all vacant posts
iv. Monitoring the progress of implementation of MNP

The population norms regarding setting up of targets of sub-centres, PHCs and CHCs are indicative. Whatever units have been sanctioned until now would be made fully functional. However, the areas which are still lagging far behind in provision of these units and health amenities would be given special consideration for allotting new centres as per requirement. The targets and achievements and the present position of units and buildings as given in table 6.39.

TABLE 6-39: PHYSICAL TARGETS AND ACHIEVEMENTS

Particulars	As on 01.04.92	Eighth Plan Target	1992-93		1993-94		1994-95
			Target	Achieve ment	Target	Achieve ment	Proposed Target
SUB- CENTRES							
Establishment	20153.	3447 300-U[2]	1300 50 - U				
Construction							
Spill-over Completion	4876	547 (P)	200 (P)	202 (2-U)	210 (10 - U)	210 (10 - U)	292
New Sanctions		650 150 - U 750-IPP	102 10 - U	92 (P)	47 (2 -U)	47	20 (U)
PRIMARY HEALTH CENTRE							
Establishment	3652	200 (50 - U)	93 (15 - U)	1	98	98	20 (5 - U)
Construction							
Spill-over Completion	1137	130	30	30	65 (5 - U)	65	80 (P)
New Sanctions		60 (10 - U)	35 (P)	37	19 (7 - U)	19	5 (U)
COMMUNITY HEALTH CENTRE							
Establishment	228	110 (10 -U)	32 (4 - U)	16	16 (2 - U)	20 (6 - U)	17 (2 - U)
Construction							
Spill-over Completion	241	91	10	16	41 (6 -U)	26 (6 - U)	20
New Sanctions		36 (6 - U)	24 (2 - U)	21	10 (2 - U)	10	2

Population of the state in urban areas has substantially increased during the past two decades. This calls for strengthening of health services in urban areas. It is thus proposed to provide 200 bedded district hospitals in districts with population above 10 lakhs, and 500 bedded hospitals at divisional headquarters. There is also a need for establishing a 500 bedded hospital in the backward and thickly populated eastern region of the state. Hence, a 500 bedded hospital is proposed to be established in Basti district of the state. Keeping in view the new developments in the diagnostic field, it is proposed to equip all district hospitals with latest domestic diagnostic equipments like ultrasound, autoanalyser, etc. Provision of running water facility, electricity, adequate number of over-head tanks, diesel generators and ambulances has been provided for this purpose.

Other new important projects to be taken up during the Eighth Five Year Plan are:

i. Construction of 500 bedded hospital in Gomti Nagar, Lucknow
ii. Expansion of civil and Balrampur hospital in Lucknow
iii. Construction of hospital in Aligarh

[2] U - Uttaranchal

iv. Herbal Institute in Hill Districts

The targets and achievements are given in Table 6.40.

TABLE 6-40: TARGET AND ACHIEVEMENT

Particulars	As on 01.04.92	Eighth Plan Target	1992-93		1993-94		1994-95
			Target	Achievement	Target	Achievement	Proposed Target
Increase in Beds							
Urban	42,730	390	232	6	406 (30 - U)	436 (60 - U)	30(U)
Rural	21,660	3,960	1524	420	464 (52 - U)	984 (152 - U)	562 (52 - U)
Specialities in Hospitals							
Intensive Coronary Care Unit	45	8 (1 -U)	7	1	2	2	1(U)
Plastic Surgery Burns unit	18	5	4	4	3	3	
Pathology Unit	119	22 (2 - U)	6	6	2	2	
STD clinics	36	13 (8 - U)	11 (8 - U)	11	2	2	
Dialysis Units	3		1	1			
Ambulance	229	29 (4 - U)	26 (2 - U)	21	4	4	2(U)
DG	146	36 (16 - U)	16	54	7	7	

The national programme relating to control and eradication of diseases like malaria, filaria, tuberculosis, leprosy, blindness and goitre will continue in the eighth Plan period on the pattern indicated by the Central Government. These programmes will also be extended to the newly created seven districts of the state.

Some externally aided projects are also under active implementation in the state. The national programme on control of blindness to be assisted by the World Bank is envisaged with an objective of reducing incidence of blindness from the present level of 1.58 percent to 0.3 percent by the year 2000. Similarly, a centrally sponsored scheme (USAID assisted project) for strengthening the family welfare programme is also under implementation through an autonomous society, State Innovations in Family Planning Project Services Agency, costing approximately US$325 million. The World Bank assisted India Population Project is already in progress in the state. The project would be completed in March 1997.

b. State Health Plan

State Health Policy is in accordance with the National Health Policy. The objective of the national health policy is to ensure availability of health services for all (HFA) by the year 2000. The major focus for achievement of the same is in providing adequate medical facilities and cure to the population, ensure public health and rehabilitation related services. Government would

like to develop an infrastructure of PHCs at remote areas to ensure availability of basic medical aid to the population.

The 20 point programme for the country defined by the central government has two heads allocated to improvement in health sector. Thrust is to provide health for all through better medical care facilities, eradication of malaria, leprosy, tuberculosis, goitre and blindness, immunisation of women and children for prevention of certain diseases, and finally, improved sanitation facilities in the rural areas would be provided. The 20 point programme also addresses to population problem by keeping objective of two children per family, educate parents on their responsibilities towards their child, reduce infant mortality rate and provide better mother and child health care.

c. Health Budget

Health Budget of the state is roughly 4 percent of the entire state budget. Under the Seventh Five Year Plan, the financial outlay for the sector was provided as Rs. 3,140 million while the actual expenditure was approximately Rs. 4,570 million. The budgeted expenditure for the Seventh and Eighth Five Year Plans is provided Table 6.41.

TABLE 6-41: OUTLAY AND EXPENDITURE STATUS IN HEALTH SECTOR

(Rs. Million)

Plan	Total Budgeted Outlay	Total Expenditure - Minimum Needs Programme		
	Outlay	Expenditure	Outlay	Expenditure
Seventh Plan	3,141.00	4,572.30	1,141.00	1,445.20
1990-91	1,251.00	1,132.80	741.50	720.60
1991-92	1,134.90	1,138.60	581.50	581.50
Eighth Plan	5,475.70	0.00	2,264.10	0.00
1992-93	953.30	888.40	406.80	439.40
1993-94	1,033.30	817.80	399.90	356.10
1994-95	1,235.60	0.00	466.00	0.00
1995-96	1,219.80	0.00	548.30	0.00

The state health budget is under the following broad heads: Allopathy; Ayurvedic and Unani; Homeopathy; Medical education; Family Welfare and Public Health. Details of the budget are provided in the following sections.

Allopathic Medical Facilities

The budget for the Allopathic facilities in the state is given in Table 6.42.

TABLE 6-42: BUDGET FOR ALLOPATHY MEDICAL CARE

(Rs. Millions)

Particulars	Actual Expenditure 1993-94			Provisional Budget 1994-95			Revised Budget 1994-95			Provisional Budget 1995-96		
	Plan	N. P.	Total	Plan	N. P.	Total	Plan	N. P.	Total	Plan	N. P.	Total
Urban Health Services												
Administration	8 61	297.53	306.14	16 5	340.88	357.38	16 54	348.22	364.76	34.44	332 02	366 46
Medical Supply Depot		261.7	261.7		14.73	14.73		14.73	14 73		21 45	21 45
Hospitals and Dispensaries	121 83	13,033.64	13,155.47	224.78	11,067.44	11,292.22	442.28	11,757.79	12,200 07	470.71	13325 8	13,796 51
Other Health Programmes	782 01	580 05	1,362 06	798 19	477 03	1,275 22	1,300.37	576 05	1,876 42	485 19	521 02	1,006 21
Miscellaneous	73 72	3,290.49	3,364 21	15	3,507.76	3,522 76	15	8,132 61	8,147 61	15	4 261 65	4,276 65
Miscellaneous (Committed)					1	1		1	1		1	1
Rural Health Services												
Hospitals and Dispensaries	1,073 27	1,2163 84	1,3237.11	1,458 35	13,124.53	14,582 88	1,333 35	13,674.53	15,007 88	1,882 45	13,221 99	15,104 44
Miscellaneous	11 45	199 86	211 31	10.7	78.12	88.82	22.8	78 12	100 92	40 45	82 07	122 52
Public Health	72.99		72 99	114 11		114 11	114 11		114 11	65 62		65 62
Social Security and Welfare		2.29	2 29		0.15	0 15		0 15	0 15		2 5	2 5
Hill Area	366.86		366 86	475.6		475 6	614 74		614.74	498 6		498 6
Civil Works (P)	3,382 08		3,382 08	3,231 7	0,38	3,232 08	3,927 47	0 38	3,927 85	3,769 39	0 38	3,769 77
Civil Works - Hill Area	262 74		262 74	100		100	206 25		206 25	311		311
Donations					2 01	2 01		2.01	2 01		2 01	2 01
Total	6,155 56	2,9829.4	3,5984.96	6,444.93	2,8613 03	3,5057.96	7,992.91	3,4584.59	4,2577.5	7,572 85	31,770 89	39,343 74

The administration head takes into account salaries of all employees at the state health and medical directorate. The directorate is responsible for all the medical officers in the state, district level health officers, teachers in medical section, nursing and other related staff, centralised purchase and dissemination of medicines and drugs, civil works or repairs of state buildings, vehicle maintenance and electrical expenditure.

The medical supply depot status of inventory is provided in Table 6.43.

TABLE 6-43: INVENTORY STATUS OF CENTRAL MEDICAL SUPPLIES

(Rs. Million)

Year	Opening Stock	Purchases	Total	Distributed	Closing stock
1992-93	4.35	20.70	25.05	6.12	18.93
1993-94	18.93	45.45	64.38	34.08	30.30
1994-95	30.30	61.75	92.05	31.57	60.48

The medical and health related services available in the urban areas of the state are provided in table 6.44.

TABLE 6-44: URBAN HEALTH SERVICES IN ALLOPATHY

Particulars	Status on 1-04-'92	1992-93		1993-94		1994-95		1995-96 Target
		Target	Achieved	Target	Achieved	Target	Achieved	
Hospitals	776				1	1	2	2
Beds available	32,625	130	6	406	60	320	775	280
Special Health Services								
Emergency Services	115	14				1		
Paediatric services	59							
Dental Facilities	62							
Blood Bank	61						1	2+1
Pathology	119	6	6	2		3	1	3
Radiology	133					1	1+7	1
Orthopaedic facilities	66					1	1	
Anaesthesiology	137							
Plastic Surgery	18	4	4	3		2	2	4
Complete Cure Services	94							
Diesel Generator	146	16	54	9	9	5	4	4
I.C.C. Unit	45	7	1	2		5	4	5

The expenditure per patient in the hospitals is indicated in Table 6.45.

TABLE 6-45: EXPENSES PER PATIENT IN URBAN AREAS

Year	Outpatient (In millions)	In patient (In millions)	Total patient	Expenditure (In millions)		Per Patient Expenses (In Rs)	
				Facilities	Medicine	Facilities	Medicine
1992-93	19.23	0.68	19.91	1761.34	183.85	88.45	9.23
1993-94	19.51	0.69	20.20	1883.61	226.72	93.21	11.22
1994-95 (Provisional)	19.80	0.70	20.50	2507.25	246.20	122.26	12.01

80 percent of the state population resides in rural areas. The status of health infrastructure in the rural areas of the state is provided in Table 6.46.

TABLE 6-46: RURAL HEALTH SERVICES IN ALLOPATHY

Particulars	Status on 1-04-92	1992-93		1993-94		1994-95		Target 1995-96
		Target	Achieved	Target	Achieved	Target	Achieved	Target
Hospitals / Dispensaries								
Dispensaries	172						1+3	
PHC	3,652	70	1	99	98	99	11	2
CHC	228	32	16	16	14	23	20	13
Beds in allopathic Facilities								
Rural	20,740	1,405	420	464	636		662	390
Specialised Services								
Emergency Services								
Paediatric facilities	232		11		10		18	
Dental Facilities	227		14		12		17	

The state expenditure per patient in the rural areas is provided in Table 6.47.

TABLE 6-47: EXPENSES PER PATIENT IN RURAL AREAS

Year	Outpatient (In millions)	In patient (In millions)	Total patient	Expenditure(In millions)	Per Patient Expenses (In Rs)		
1992-93	17.75	0.63	18.38	1,240.21	117.14	6.75	0.64
1993-94	18.02	0.64	18.65	1,532.12	129.23	8.21	0.69
1994-95(Provisional)	18.28	0.65	18.93	1,686.88	131.23	8.91	0.69

d. Medical Education

Under medical education, the state is responsible for providing graduate, post graduate and specialised training. There are six medical colleges under the state government, two under the central government, two in private sector and one under Lucknow University. The training facility for nurses, laboratory technicians and pharmacists is also provided. The budget for the training facility for 1993-94 was Rs. 33.34 lakhs while the budget figure for 1995-96 is Rs. 40.23 lakhs.

Uttar Pradesh has a separate Medical Education Directorate in the state. The directorate is responsible for entire medical education and training for the medical personnel in the state. The Directorate is responsible for six medical colleges in the state excluding King George's Medical College, Lucknow. The capacity of each medical college under the state jurisdiction is provided in Table 6.48.

TABLE 6-48: CAPACITY OF MEDICAL EDUCATION IN THE STATE

Years	Capacity	Admissions	Passed	Total Expenses	% Expenditure
Medical College, Agra					
1992	123	124	140	41.61	2.18
1993	123	123	107	28.89	2.34
1994	123	123	135	30.02	2.44
Medical College, Allahabad					
1992	102	102	115	35.7	3.51
1993	102	102	93	27.29	2.67
1994	102	102	103	25.31	2.48
Medical College, Meerut					
1992	153	153	171	36.36	2.50
1993	153	153	165	28.17	1.84
1994	153	153	110	22.30	1.45
Medical College, Kanpur					
1992	191	188	243	64.24	3.36
1993	191	181	164	39.81	2.08
1994	191	191	214	36.40	1.90
Medical College, Jhansi					
1992	80	75	95	22.27	2.78
1993	80	79	83	19.19	2.39
1994	80	80	93	18.42	2.30
Medical College, Gorakhpur					
1992	105	97	102	16.99	1.79
1993	105	96	87	17.90	1.79
1994	105	105	106	18.65	1.86
Medical College, Lucknow					
1992	185	196	247	86.37	4.67
1993	185	183	108	116.43	6.29
1994	185	185			

UP also has a College of Nursing at Kanpur which has a capacity for training 40 nurses in one batch. There is also a course for B. Sc. (Nursing) offered to 25 candidates annually.

UP medical budget has provided for Rs. 40.23 lakhs for training in the year. 1995-96. Under this training head, training to X-ray technicians, laboratory technicians, pharmacists and dental hygienists is provided. Currently, the training for laboratory technicians and pharmacists has been suspended.

e. Family Welfare

The budget for the state for Family welfare is provided under three prime heads, Family Welfare, Social security and prevention and finally, *Revenue expenditure* for Family Welfare. Table 6.49 provides the details for last two years:

TABLE 6-49: BUDGET FOR FAMILY WELFARE

(Rs. Million)

Particulars	Actual Expenditure 1993-94		Income-Expenditure Budget - 1994-95		Revised Estimate1994-95		Budget Estimate1995-96	
	Plan	N. Plan	Plan	N. Plan	Plan	N. Plan	Plan	N. Plan
Family Welfare	2,393.71	0.00	1,530.41	0.00	1,605.61	0.00	1,842.86	0.00
Social Security and Welfare	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
Revenue Expenditure on Family Welfare	164.90	0.00	67.77	0.00	129.74	0.00	61.78	0.00
Total	2,558.61	0.13	1,598.18	0.00	1,735.35	0.00	1,904.64	0.00

f. Public Health

Table 6.50 provides details on various schemes and activities where the state has responsibility for the health of its citizens.

TABLE 6-50: ACTIVITIES UNDER PUBLIC HEALTH

(Rs. Million)

Particulars	Actual Expenditure 1993-94	Revised Estimates 1994-95	Budget Estimates 1995-96
Health Officer	91.96	123.57	132.33
Maternity and Child Welfare	395.30	472.50	510.27
Magh Mela	2.93	5.03	1.02
Industrial Health Association	0.91	1.11	0.96
Kumbh Mela	0.00	0.00	0.00
Malaria Prevention	781.56	598.89	588.39
Epidemic Control	11.77	8.96	9.49
Filaria	39.04	44.05	42.90

Infectious Diseases	1.83	1.90	2.09
Provincial health Science Institution	5.49	5.57	5.91
Cholera Control Programme	0.54	0.34	0.30
Immunisation Programme	136.55	166.89	165.30
Chiat Ramaswamy Mela	0.58	0.58	0.58
Savan Jhoola Mela	0.38	0.38	0.38
Kartik Purnima mela	0.33	0.20	0.20

6.5.3 Medical Resources

The medical resources available are the personnel involved with the medical sector, the infrastructure present in the state and the various special facilities or equipment provided to the state residents by the medical sector.

The infrastructural resources are the urban and rural health centres existing in the state. The thrust in the state health policy is to make basic health facilities available to its rural population. The density of population and the size of the state are limiting factors for achievement of this formidable goal, however the efforts for the same are underway and shall continue in the Ninth Five Year Plan.

The status of the availability of doctors in the state health system is provided in the Table 6.51.

TABLE 6-51: STATUS OF PERSONNEL IN THE STATE MEDICAL SERVICES

Particulars	Accepted Posts	Posts Filled	Vacant Posts
Director General	3	2	1
Director	11	4	7
Additional Director (M)	52	36	16
Additional Director (F)	8	7	1
Joint Director (M)	348	316	32
Joint Director (F)	82	48	34
Special Grade (M)	1,737	1,369	368
Special Grade (F)	243	171	72
General grade (M)	8,634	7,415	1,219
General grade (F)	1,479	1,429	50

KGMC, which is under the jurisdiction of the University of Lucknow, has 286 posts for doctors, of which 100 are vacant.

6.5.4 National Programmes Under Implementation in the State

There are six major national programmes which have been established by the central government which have been major cause of death in the country. The national programmes are being run

for those communicable diseases where medical intervention would bring the incidence of death to a very low percentage and would be highly cost-effective.

The national programmes are being run for Tuberculosis, Malaria, Kala-azar, Japanese Encephalitis, Leprosy, Polio, AIDS, Filaria, Goitre, Blindness and Cancer. The central government provides for the national health programmes by giving 75% loan and 25% grants for the execution of the same.

6.5.5 NGOs Active in the State

State Innovations in Family Planning Services Project Agency (SIFPSA), an autonomous body, for execution of the Innovations in family Planning Project in the state of Uttar Pradesh. It receives grants from the USAID. It is a ten year project with the objective of increasing access to family planning services, improving the quality of family planning services and promoting family planning services by broadcasting support among leadership groups and increased public understanding of the benefits of family planning.

SIFPSA is operating as an autonomous body with minimum of government intervention. The nodal position in the society is provided by IAS in the state cadre. Hence, there are certain constraints of the bureaucracy that are faced by the organisation and the project.

6.5.6 International Funding in the State

The state is obtaining assistance from USAID, UNICEF, DANIDA and World Bank. USAID is funding SIFPSA activities for population and family planning in the state. UNICEF has certain ongoing projects for women and child development in the state. It is working through certain social and development government departments. DANIDA is funding in the eye-care region. World bank is funding a population project, India Population Project (IPP) in the state which is at its final phase and would terminate in March, 1997.

JICA is considering funding medical equipment for KGMC in Lucknow. Details of the medical college and the attached hospital are provided in Appendix I.

7. CONCLUSIONS AND RECOMMENDATIONS

7.1 CONCLUSIONS

During the past two decades, India has developed a health care system in which the government sector finances and manages a basic health care infrastructure, while the private sector predominantly provides ambulatory care services. Substantial gaps, however, remain in the effective delivery of the health care, especially for the poorest section of the population. Key health indicators show that the health status of India's population remains low. Communicable diseases continue to be major health problems; maternal mortality is high; acute respiratory and diarrhoeal diseases account for a large number of childhood mortality; and preventable mortality and morbidity, especially among the poor, exact a high toll. Moreover, with the increasing age profile of its population, India is moving into an epidemiological transition with the double burden of significant communicable diseases and increasing non-communicable diseases such as cardio-vascular diseases, cancers, diabetes and cataract blindness.

The capacity of the health care system in India to effectively address the short and long term health care needs of the country remains limited. The country needs to be prepared to deal with the evolving burden of disease in the next decade and to put in place a sustainable health system which would combine elements of public health and clinical services in providing an adequate and necessary package of basic health services. This package of basic health services would integrate primary health care with secondary level or first referral hospitals. There has to be emphasis on the first referral facilities at the state level in the proposed vital support to primary health care services and the rest of the health sector. In addition, a program of health sector policy reform needs to be initiated to provide the general framework for health sector development. These changes need to take place within the context of the state health systems and will provide technical effectiveness and improved quality of health care.

Although health services are only one factor in explaining past success, the importance of their role in the developing world is not in doubt. Public health measures brought about the eradication of smallpox and have been central to the reduction in deaths caused by vaccine preventable childhood diseases. Expanded and improved clinical care has saved millions of lives from infectious diseases and injuries. But there are major problems with the health systems that, if not resolved, will hamper progress in reducing the burden of premature mortality and disability and frustrate efforts to respond to new health challenges and emerging disease threats. These are outlined below.

Misapplication. Public money is spent on health interventions of low cost-effectiveness, such as surgery for most cancers, at the same time that critical and highly cost-effective interventions, such as treatment of tuberculosis and sexually transmitted diseases (STD), remain under-funded. In some countries a single teaching hospital can absorb 20 percent or more of the budget of the ministry of health, even though almost all cost-effective interventions are best delivered at lower level facilities

Inequity. The poor lack access to basic health services and receive low quality care. Government spending for health goes disproportionately to the affluent in the form of free or below-cost care in sophisticated public tertiary care hospitals and subsidies to private and public

insurance. For example, in the All India Institute of Medical Sciences (AIIMS) and the LNJP hospitals in Delhi, all health care facilities are provided free of charge. The former is a top referral and tertiary care hospital and its facilities are predominantly utilised by the affluent strata of society.

Inefficiency. Much of the money spent is wasted. Branded pharmaceuticals are purchased instead of generic drugs, health workers are badly deployed and supervised, and hospital beds are under-utilised. The consultants observed that the rate contracts that are entered into by the respective state governments offer at the best, a very small list of drugs which do not fulfil the requirements of the hospitals and other health care delivery channels. As a result, proprietary drugs are purchased by the hospitals. This was reported by the Medical Stores Organisation (MSO) also. The MSO has a well established network of depots around the country and is the supplier of drugs for central and some government hospitals and dispensaries. The Vocabulary of Medical Sciences (VMS) is a list that is categorised into generic and proprietary drugs and is used by the MSO to supply drugs. It was observed that over the years, the demand for proprietary drugs has increased manifold due to the general perception of their being quality drugs. The consultants had conducted an institutional strengthening study for MSO in which one of the recommendations included the rationalisation of the outdated and very long VMS.

Exploding costs. In some middle-income developing countries health care expenditures are growing much faster than income. Increasing numbers of general physicians and specialists, the availability of new medical technologies, and expanding health insurance linked to fee-for-service payments together generate a rapidly growing demand for costly tests, procedures and treatments.

Health Policy. The Eighth Plan (1992-97) identified health as one of the six priority areas, and determined that public investments in health are critical for human resource development and poverty alleviation in India. India's long term strategy for health sector development is enunciated in the National Health Policy (NHP) of 1983. Public policy on health has been based on an implicit assumption that primary health care is a basic right to which people should not be denied access due to inability to pay or for other socio-economic reasons. The NHP emphasises the role of the state in providing basic health care, through the development of publicly run health facilities and draws attention to the strengthening of co-operation between the public and the private sectors. The NHP gives high priority to the control of fertility, infectious diseases of public health importance and preventable causes of maternal and childhood mortality and morbidity. This is an appropriate health policy, in terms of India's burden of disease.

Health Care Financing. However, investment allocations do not fully reflect the priorities highlighted in the government's health policy and implementation of health programs continues to be weak. In 1991, total spending in India accounted for about 6 percent of GDP, or about US$13 per capita per year. Of this, government contributions including centre, states and municipalities account for about 20 percent of total health spending or 1.3 percent of GDP. Private health spending accounts for the remaining 80 percent. As a percentage of GDP, total health spending is higher than in other Asian countries which are at about India's level of per capita income. However, the percentage of government to total health spending in India is lower than in comparable Asian countries. During the Eighth Five Year Plan, the outlay for the health sector was approximately between 1.5 to 2.0 percent of the GDP. There is also a difference in the type of health services provided in the public and the private sectors. Public provided services are the dominant source of preventable health care, such as immunisation, ante-natal

care, and infectious disease control services, in both rural and urban areas. Private providers are dominant in the provision of ambulatory care for acute illness, or illnesses not requiring hospitalisation. Moreover, the private health spending is almost entirely from out-of-pocket sources, and health insurance is insignificant and limited in scope. This places a disproportionate burden on the poor.

In the year 1993-94, the policy reforms in the health sector are reflected in the shape of cuts in the budget in the years 1990-1991 and 1993-1994. The decrease in the budget was more pronounced in the states. However, it is to be noted that, during this period, the development expenditure in the states decreased. This decrease in development expenditure was due to lower transfers as well as low yield from taxes. This was a manifestation of the centre's reforms in the health. Health care was a major casualty as state's share of the expenditure in this sector constitutes a major component.

The fall in the states' health expenditure, especially in the case of the poorer states (Bihar, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh), was sharper than that of the middle income (Andhra Pradesh, Assam, Karnataka, Kerala, Tamil Nadu, W Bengal) and richer states (Gujarat, Haryana, Punjab, Maharashtra). Moreover, the decreases in the poor states reflected primarily in the programme contents as the expenses in staff salaries had to be maintained at the usual level. Rural health sector and the states of Uttar Pradesh and Bihar suffered maximum decline in the budget. Although it is difficult to gauge the impact of the budget cuts in health sector, health statistics indicate a slowing down in the gains of the achievements of the past few decades.

Within this federal structure of government spending, states spend about 87 percent, the centre about 10 percent and municipalities account for remaining 3 percent. At present a large component of public spending on health gets directed towards tertiary care and medical education, and on public health interventions. The primary and secondary levels of health care need to be strengthened in the following years. Under the MNP, most of the states in the country have either already achieved their targets or will do so soon. The infrastructure for these levels is already in place. Assistance needs to be directed towards making them effective in delivering the health care benefits in terms of equipment, maintenance and ensuring that the work conditions there are conducive for attracting qualified personnel.

The share of salaries of the health budget has continued to increase, and recent sector work indicates that it accounts for 70-80 percent of funds targeted to the health sector. Consequently, the share of non-salary recurrent costs has fallen and operation and maintenance of health programs continue to suffer. As a result, the total amount of resources available for high priority, cost effective health services is small.

7.2 RECOMMENDATIONS

The health system needs reforms in the areas of policy, institutional strengthening, improving service delivery and improving access to primary health care in remote and underdeveloped areas.

7.2.1 Health System Reforms

Five policies for better health are crucial in this environment: providing solid primary schooling for all children, especially girls; investing more resources in highly cost effective public health

activities that can substantially improve the health of the poor, shifting health spending for clinical services from tertiary care facilities to district health infrastructure capable of delivering essential clinical care; reducing waste and inefficiency in government health programs; and encouraging increased community control and financing of essential health care.

User Involvement. Government should emphasise its commitment to a policy package of health reforms reflecting key sectoral development issues for the primary and first referral levels of health care. Ensuring basic public health services and essential clinical care while the rest of the health system becomes self-financed will require substantial health system reforms and reallocation of public spending. Only by reducing or eliminating spending on the discretionary clinical services can governments concentrate on ensuring cost-effective clinical care for the poor. One way to do so is by charging fees to affluent patients who use government hospitals and services. In Chile, Kenya, and other countries governments are increasing user fees for the wealthy and for those covered by insurance and are strengthening the legal and administrative systems for billing patients and collecting revenues.

Cost-effective interventions. Reforms entailing shifting new government spending for health away from specialised personnel, equipment, and facilities at the apex of the health systems and "down the pyramid" towards the broad base of widely accessible care in community facility and health centres. Very few cost-effective intervention depend on sophisticated hospitals and specialised physicians - all the services contained in the minimum essential clinical package can be provided by the health centres and district hospitals. Yet specialised services everywhere absorb a large amount of public resources, a problem that has frequently been exacerbated by donor investments in tertiary care facilities.

Referral System. To provide basic primary health care to the population, a first referral health system needs to be established. This would provide vital support and lend credibility to primary health care services and the rest of the health sector. This would be a step towards a coherent, efficient and sustainable health system. It is expected that, with adequate referral system in place, it would strengthen the organisational structure of preventive and curative aspects of health care by integrating primary health care services with first referral hospitals.

Health Infrastructure efficiency. In every developing country, decisive steps are needed to correct the pervasive inefficiency of clinical health programs and facilities and especially of government services. Clinics and outreach programs operate poorly because of shortages of drugs, transport, and maintenance.

Governments can develop national essential drug lists, consisting of a limited number of inexpensive drugs that address the important health problems of the population. New treatment protocols and alternative uses of facilities can raise efficiency. Outpatient surgery can replace some procedures customarily performed on the inpatient basis, at considerable savings. In the long run, decentralisation can help to increase efficiency when there is adequate capacity and accountability at lower levels of national health system.

Private sector Involvement. Greater reliance on the private sector to deliver clinical services, both those that are included by a country in its essential package and those that are discretionary, can help raise efficiency. The private sector already serves a large and diverse clientele in India as in other developing countries and often delivers services of high quality without the long lines and inadequate supplies frequently found in government facilities. Private doctors and

pharmacies face unnecessary legal and administrative barriers, and these need to be removed. But the tendency for profit making providers to over-prescribe drugs, procedures, and diagnostics needs to be countered; encouraging the for-profit sector to move away from fee-for-service to prepaid coverage is one feasible approach. Governments could also subsidise private health care providers who deliver essential clinical services to the poor.

Regulation is an essential element of government efforts to encourage private health care suppliers. In most countries, governments have an important role to play in ensuring the quality of private sector health care - through accretion of hospitals and laboratories, licensing of medical schools and physicians, regulation of drugs, and reviews of medical practices.

Adoption of the main policy recommendations by developing country governments would enormously improve the health status of their people, especially poor households, and would also help to control health care spending (Refer Table 7.1). Implementation of the public health and essential clinical care packages, pursuit of economic growth strategies that reduce poverty, and increased investment in schooling of girls would have the largest payoffs in averting deaths and reducing disability.

Fund Flow. The current federal set-up of the country results in the funds being transferred to the respective state governments. Experience has shown that this is not the best channel of delivering funds due to the inordinate delays and diversion of funds which is very common at the state level. However, for programmes like Leprosy and Blindness, societies have been established. This organisational form is more suitable due to the flexibility that it offers in terms of day to day operations. A composite society for all health programmes may be thought of.

Strengthening of Health Services System with Assistance from International Development Agencies. There are World Bank projects for separate states in the country being implemented at present. The objectives of these projects has been to improve efficiency in the allocation and use of health resources through policy and institutional development to improve the performance of health care delivery system through improvement in the quality, effectiveness and coverage of health services at the first referral level and selective coverage at the primary level to better serve the poor.

Strengthening of the Institutional Setup for Non-Communicable Diseases (Cancer, Diabetes, Cardiovascular diseases). This could include the following:

- Enhance the coverage under the Non-Communicable Diseases Programme during the 9th Five Year Plan to more districts
- Concentrate on the prevention of tobacco related cancer
- More resources to be allocated for massive IEC Campaigns for Non Communicable Diseases
- Palliative care for terminal cancer patients to be improved. This needs to be upgraded to the norms that have been laid down by the WHO which state that oral morphine tablets should be made available at the door step of the most needy patient.
- Establishing a Trauma Centre at Delhi

Box 7.1 outlines the strategy for improving the health of a country.

TABLE 7.1: CONTRIBUTION OF POLICY CHANGES TO OBJECTIVES FOR THE HEALTH SECTOR

Government Objectives and policies	Contribution to Goals		
	Improving health Outcomes	Reaching the Disadvantaged	Containing costs
Foster an enabling environment for households to improve health			
Pursue economic growth policies that benefit the poor			
Expand investment in education, particularly for females			
Promote the rights and status of women through political and economic empowerment and legal protection against abuse			
Improve government investments in health			
Reduce government expenditures for tertiary care facilities, specialist training, and discretionary services			
Finance and ensure delivery of a public health package, including AIDS prevention			
Finance and ensure delivery of essential clinical services, at least to the poor			
Improve the management of public health services			
Facilitate involvement of the private sector			
Encourage private finance and provision of insurance (with incentives to contain costs) for all discretionary clinical services			
Encourage private sector delivery of clinical services (including those that are publicly financed)			
Provide information on performance and costs			

Favourable | Very Favourable | Less Favourable | No Impact

BOX 6.1: STRATEGY FOR IMPROVING HEALTH

There is a three pronged strategy that government may adopt for improving health.

Foster an environment that enables households to improve health

Household decisions shape health, but these decisions are constrained by the income and education of household members. In addition to promoting overall economic growth, governments can help to improve those decisions if they:

Pursue economic growth policies that will benefit the poor

Expand investment in schooling, particularly for girls

promote the rights and status of women through political and economic empowerment and legal protection against abuse

Improve government spending on health

The challenges for most governments is to concentrate resources on compensating for market failures and efficiently financing services that will particularly benefit the poor. Several directions for policy respond to this challenge:

Reduce government expenditures on tertiary facilities, and interventions that provide little health gain for the money spent

Finance and implement a package of public health interventions to deal with the substantial extrernalities surrounding infectious disease control, prevention of AIDS, environment pollution, and behaviours that put others at risk

Finance and ensure delivery of a package of essential clinical services. The comprehensive and composition of size of a package can be defined uniquely by each country, taking into account epidemiological conditions, local preferences, and income. In most countries public finance, or publicly mandated finance, of essential clinical package would provide a politically acceptable means for distributing both welfare improvements and a productive asset - better health - to the poor.

Improve management of government health services through such measures as decentralisation of administrative and budgetary authority and contracting out of services.

Promote diversity and competition

Government finance of public health and of a nationally defined package of essential clinical services would leave the remaining clinical services to be financed privately or by social insurance within the context of the policy framework established by the government. Governments can promote diversity and competition in provision of health services and insurance by adopting policies that:

Encourage social or private insurance for clinical services outside the essential package

Encourage suppliers to compete both to deliver clinical services and to provide inputs, such as drugs, to publicly and privately financed health services. Domestic suppliers should not be protected from international competition.

Generate and disseminate information on provider performance, on essential equipment and drugs, on the costs and effectiveness of interventions, and on the accreditation status of institutions and providers.

Increased scientific knowledge has accounted for much of the dramatic improvement in health that has occurred in the century - by providing information that forms the basis of household and government action and by underpinning the development of preventive, curative, and diagnostic technologies Investment in continued scientific advance will amplify the effectiveness of each element of the three pronged approach proposed . Because the fruits of science benefit all countries, internationally collaborative efforts, of which there are several excellent examples, will often be the right way to proceed

7.2.2 Action Plan for Health Reforms

Details of reform program is provided below:

1. Increase financing and improve resource allocation for the health sector by
    - ensuring adequate budgetary allocations to the health sector
    - increasing the share of health sector resources to the primary and secondary level of health care
    - safeguarding the operations and maintenance component of the health budget to ensure adequate supplies of drugs and essential; medical materials and maintenance of equipment and infrastructure
2. Strengthen the capacity of the implementing agency in sector analysis and management

- setting up a strategic planning cell under the Health Secretary to undertake analyses of health sector issues
- strengthening the implementing agencies role and provide it with authority to manage essential operational activities including civil works construction and maintenance activities

3. Enhance the role of the private and voluntary sectors in the delivery and management of health services
    - contracting out selected services
    - promoting linkages in health care delivery with the private and voluntary sector
4. Implement a user charge policy
    - implementing existing user charges more rigorously
    - retaining and using revenue collected
    - exempting the poor from user charges

Generally, health financing sector work indicates that the revenue collected is in the range of 3 to 7 percent of the health budget of the states. International experiences in developing countries with somewhat higher per capita income than India, and where the performance of the public health sector has been relatively better, shows that revenue collected from user charges accounts for about 15-20 percent of the health budget. The government recognises the role of increasing revenue collection through user charges for sustainability of the sector. A major problem in increasing revenue is the lack of the enforcement in the collection of the existing user charges.

The system of user charges proposed by each state would be a combination of voluntary payments and targeting the poor for exemptions. In order to generate revenue and provide services for those willing to pay, district and sub-divisional hospitals will provide private paying

bed facilities and begin to charge for facilities in a phased manner after improvement of the basic services and development of the infrastructure have been completed. 10 percent of the beds at the first referral hospitals would be designated as paying beds. User fees for the same would be made effective after improved services are provided at each facility. The government would institute adequate administrative mechanisms for collecting user fees through District health committees and through the appointment of the key staff at the district level who would be responsible for implementing and collecting user charge more rigorously.

The health reforms would entail following activities:

1. Management development and institutional strengthening

- improving the institutional framework for the policy development

  Sectoral capacity for development of policy would be strengthened in each state through the creation of a Strategic Planning cell by a person of the rank of a Joint Secretary who would report directly to Secretary, DOHFW in each state. The planning cell would monitor the critical issues in the health sector on the state by commissioning studies, workshops and seminars and by directly hiring consultants to facilitate these activities. As noted earlier, some of the issues would include monitoring the development of the private health sector including private and social insurance, reviewing the suitability of present regulations relating to the quality of private care provision, evaluating the burden of disease and cost-effectiveness of public health interventions and reviewing medical manpower. In addition, the strategic planning cell in each state would review implementation of cost recovery mechanisms and sectoral resource allocation pattern.

- strengthening the management and implementation capacity of institutions

  Management arrangements in each state shall be reviewed from time to time to see whether the management system is producing the best results. In addition, a review of the overall state finances as well as the financial situation of the health sector would be undertaken, and, if necessary, would form the basis of additional measures to achieve financial sustainability of the project.

- developing a surveillance capacity for major communicable diseases and response capabilities

  The surveillance system for major communicable diseases would cover the identification of cases through education of health workers and community involvement; indexing of cases or isolation of cases and treatment; and tracing of contacts for monitoring and evaluation. In the long term, however, the surveillance system would need to be expanded to include preventive examination among those most likely to be infected and carrying out immunisation; and an enhanced response capability in case of outbreak or epidemic. This would fill some of the gaps in the national disease programs by linking the three elements noted above and providing treatment at the primary and secondary levels.

  Each state has identified a list of communicable diseases for routine surveillance. Explicit criteria for monitoring these communicable diseases would be set to avoid any ambiguity in reporting by different agencies. Emphasis has been put on a community - based system for

early detection and reporting and the full participation of local level institutions working at the level of village or community will be necessary to make the system more effective. The implementation of Health Management Information system will improve tracing of contacts as well as provide information on other diseases that are slated to be included under HMIS activities. To improve the system, quick containment measures have been developed even in the case of a single incidence to prevent possible outbreak of a specific disease identified in the priority list.

In the case of outbreak/ epidemic, daily monitoring would be required.

2. Improving Service quality, access and effectiveness at the first referral level

- upgrading community, subdivision and district hospitals

To avoid the duplication of efforts which is occurring to a great extent in the present system of doing things, it is proposed that all health and population and gender and child related development and welfare programmes at the rural level be integrated. This would result in the optimum use of existing resources and facilities. For example, this would lead to the conversion of a unipurpose worker to a multi purpose worker, with a smaller population to cater to. *Resources need to be earmarked for the training of the unipurpose worker so as to develop them to multi purpose workers.*

The ongoing vertical programmes at the rural health level viz., Leprosy, TB, Malaria, STD and AIDS, Blindness need to be gradually made horizontal and fully integrated at the level of primary health care.

- upgrading effectiveness of clinical and support services

Streamlined norms and standards for clinical and support services would be applied at the first referral hospitals. Staffing norms conforming to services provided at each type of facility would be adopted, a system of monitoring improvements in the quality care would be established through the adoption of the a quality assurance program and the capacity of support services would be expanded., Staff skill in clinical and technical areas would be enhanced through the provision of training to improve the quality and range of services. Management training for cadres and on-going in-service training for clinical and technical cadres would also be strengthened. This would facilitate the implementation of the quality improvement strategy of the project, through which new responsibilities would be provided. It is expected that decision making shall be decentralised down to the appropriate management level.

At the first referral level, the focus on improving the management effectiveness would be on strengthening service delivery. The first referral level would be able to better manage its resources, deliver clinical services effectively, and hospitals will be able to play a more important role within the district health system.

There is currently no acute shortage of professional staff overall, but there is a shortage of medical specialities and nurses. The first step would be to improve recruitment and prompt filling of job vacancies by improving recruitment procedures. An understanding was reached with the states that the implementing agencies would have the authority to:

- advertise, appoint, promote and transfer staff internally
- Post staff as needed, especially in tribal areas,
- introduce appropriate incentives to retain staff in remote areas including: provision of quarters, bonus at the end of the specified period of posting, educational allowance for children of staff posted in remote and tribal areas, additional leave eligibility and extra credit for doctors and staff for post-graduate admissions and for fellowships
- relax services rules as necessary to maintain service when appropriately qualified staff are unavailable.
- improving the referral mechanism and strengthening linkages with the primary and tertiary health care levels

Efforts would be made to ensure that a much higher proportion of patients coming to first referral hospitals had been seen at PHCs and referred upwards. Likewise, for those patients going to tertiary hospitals, the project would implement several measures to strengthen the referral system and improve the quality of care at the first referral level. Special attention would now be given to establishing mechanisms to improve access for remote and disadvantaged groups and tribal communities. The referral system would also be strengthened by establishing an incentive system with differentiated user fees for users and non users and allowing patients to bypass waiting lines when they carry a referral slip.

3. Improving access to primary health care in remote and underdeveloped areas

- Upgrading primary health centres and improving access to primary health care services
- increasing access to primary health care services among SC/ST population

It is imperative that the government make an important intervention along the proposed lines with assistance from international cooperation agencies. Research has shown that government policy alone has a far and wide reaching impact. The rationale for government action is further detailed in Box 7.2.

BOX 7.2: RATIONALE FOR GOVERNMENT ACTION

Public policy in health is successful if it leads to increased welfare through better health outcomes, greater equity, more consumer satisfaction, or lower total cost than would occur in the absence of public action. Of course, the pursuit of one or more of these objectives does not by itself justify government intervention There must be a basis for believing that the government can achieve a better outcome than private markets can. There are three broad reasons why that belief may be true: one centres on poverty and the equitable distribution of health care and the other two involve market failures.

***Reduction or alleviation of poverty** provides a straight forward rationale for public intervention in health. Success in reducing poverty requires two equally important strategies: promoting the use of the most important asset of the poor - their labour - and increasing their human capital through access to basic health care, education and nutrition.*

To ensure that subsidised health services actually reach the poor, however, may require restrictions, particularly on the kind of care that is paid for by the public sector. Offering free care of all kinds to everybody typically leads to rationing of services - geographically or according to quality. Such universal programs may not reach the poor or improve their health. They may, however, command more political support than targeting, and they more easily address the problems of insurance markets.

***Public goods and externalities** are forms of market failures that may justify government intervention. The services classified as public goods and some of those characterised by large externalities, constitute what is known as public health. Public health includes those services provided to the population at large or to the environment, such as spraying to control malaria. It also typically includes some services such as immunisations that are not public goods but that carry substantial externailities.*

The key characteristic of public goods - which may be products or services - is that one individual can use them without limiting others'; consumption or benefit. As long as somebody pays, everybody benefits - which makes it difficult or impossible to find any altruistic enough to pay. Another public good, new scientific information, has contributed enormously to the rapid improvements in health. Its continued creation will depend at least in part on the government. The right choice of interventions and the proper level of provision of any public good requires careful analysis of the health benefits in relation to the cost. Prices provide no indication of what benefits are worth because private markets do not supply public goods. NGOs may supply such goods but cannot fully substitute for government action.

Externalities, or spillovers of benefits or losses from one individual to another, characterise cases in which a private market might function but would produce too much or too little. For example, curing an individual of tuberculosis also prevents transmission of disease. But an individuals demand to be cured of TB is probably not affected by the consideration of the risk to others. If the externality is not taken into account, treatment will be priced too high in the private markets, and too little treatment would be given Subsidies for treatment are therefore justified. An example of negative externalities is a person use of antibiotics, which may, by increasing microbial resistance to a drug, reduce the drug's value to others and increase their risks.

***Failures in markets for health care and health insurance** provide a third rationale for government action to improve efficiency and, in case of failures in the market for health insurance, to improve equity. One source of market failure, 'adverse selection' arises because individuals face different risks. Customers who know themselves to be at high risk are motivated to buy more insurance and are more likely to use it. So it is in the insurer's interest to find out who the high-risk customers are and either to exclude them or to compensate for their greater risk by charging them higher premiums. Defensive efforts to obtain valuable information about risks add to the cost of the insured health care without improving health outcomes.*

The government cannot finance all medical care for which insurance might be desirable without worsening the tendency toward higher cost and risking defacto rationing of health care, which particularly hurts the poor.

Adverse selection presents a serious problem for risks but an even more complex problem arises from the fact that an initially low risk person may become high-risk person later in life. In principle, there should be insurance available specifically against the likelihood of increased risk, or else insurance should cover a person's entire lifetime, with sharing of risks that may arise in the distant future, as well a of current ones. Neither solution is easy to implement because of extreme uncertainty, insurance can cover known risks but not uncertainty about risks.

7.2.3 Health Sector Development Programme

Keeping in mind the current status of the health sector, the health development programme shall entail certain changes which are outlined issue wise in table 7.2.

TABLE 7.2: HEALTH SECTOR DEVELOPMENT PROGRAMME

Issue	Effect	Proposed Change or Action
1. Adequacy of the overall size of the health budget to meet public health goals.	The health expenditures are inadequate to provide essential primary health care together with a basic package of clinical/curative services.	Recognising the link between basic public health provision and poverty alleviation, the Government will ensure that, in each fiscal year, during implementation of the project, the share of overall budget (plan and non-plan,), excluding all projects specifically financed either through external assistance or by way of loan from national financial institutions or by way of grant/loan from Government of India as per award of Tenth Finance Commission, allocated to the health sector shall be maintained least at the level allocated in FY 94/95.
2. Imbalances in public expenditure between different levels of the health sector.	With increasing expenditure on tertiary level health care, there has been a relative decline in the investment in primary and secondary level facilities. This imbalance needs correction.	The Government recognises the need for focusing attention on the primary and secondary levels of health care and also to step up allocations for these levels. A major portion of the increased allocation will go to the primary and secondary levels.
3. Redressing regional imbalances.	Certain districts show poor health indicators due to uneven development in the health infrastructure and delivery of services.	Through both project as well as non-project interventions, a policy of positive discrimination in favour of the underdeveloped districts and tribal areas within advanced districts will be followed to reduce the existing imbalance. This differential policy is already under implementation. Additional resources are being provided out of the state's own funds for filling critical gaps in primary health care.

Issues	Effect	Proposed Change or Action
4. Quality of and access to hospital services.	Quality of medical services are inadequate. In addition, access to health care services is limited, especially for populations in the least developed areas of the state, particularly women, scheduled castes and scheduled tribes.	Quality and access will be improved by: (i) upgrading and expanding physical capacity; (ii) upgrading clinical effectiveness and quality of services at community, taluka and district hospitals; (iii) improving the referral system; and (iv) adopting staffing and technical norms in line with the recommendations of the high level committee. In respect of scheduled caste and scheduled tribes, access will be improved through a system of health cards and annual health check-ups. Patients below the poverty line who cannot afford high cost treatment for serious ailments such as oncology and cardiac disorders, will be assisted through a specially constituted society, to be financed by the Government.
5. Strategic Planning	Inadequate strategic planning capacity in the health sector has resulted in sub-optimal use of resources. Decisions on public health spending priorities presently do not take into full consideration the size and scope of services provided by private, commercial and voluntary sectors, the health manpower supply situation and the predicted future epidemiological profile in Karnataka.	The capacity for strategic planning will be enhanced through establishment of a Planning Cell directly reporting to the Secretary Health and Family Welfare. This will, either independently or through sponsored specific research projects: (i) study the role of the private sector; (ii) review the suitability of present regulations; (iii) study the evolving epidemiological profile in Karnataka; (iv) monitor the burden of disease and recommend cost-effective means for achieving the best use of limited resources; and (v) undertake periodic review of the health manpower supply situation and training needs in the state A study of the scope and prospects of enlisting private sector support for promotion of health care at primary and secondary levels will be undertaken.

Issues	Effect	Proposed Change or Action
6. Workforce	Improvement of services at hospitals is significantly restricted by workforce problems, both in terms of quality and quantity. The number of staff sanctioned at hospitals does not fit current needs. There are many vacancies due to poor and cumbersome recruitment procedures, and unimaginative personnel policies. The distribution of medical specialists is not commensurate with the need (e.g., a general surgeon in place of an Obstetrician and Gynaecologist).	No ban on recruitment will be imposed with regard to recruiting medical, paramedical and technical staff. In a short period the problem of mismatching n medical staff will be solved. The practice of deputing staff to non essential assignments will be put to an end. Doctors will be recruited on contract where direct recruitment is slow. Doctors will also be asked to serve a mandatory period of six years in rural areas before being considered for postings at more preferred places. Since there is a large number of lady doctors' vacancies, participation by private lady doctors in government facilities will be encouraged.
7. The role of the private sector and voluntary organisations	The health services development strategy of the Government has not taken sufficient account of the scope and coverage of non-Governmental providers and the role of this sector in delivering quality health care.	Legislation will be introduced to regulate all medical institutions. Services offered in the private sector would be continuously monitored, with a view to improving the quality of such services. Referrals between private primary care and public secondary care, diagnosis and treatment would be encouraged through district health committees.
8. Role of the NGO sector.	NGO participation in health care at all levels, especially at the levels of public health and first referral, needs to be supported and encouraged, with a special focus on the backward and remote regions of the state.	The Government will take initiative in enlisting the effective participation of NGOs in the area of primary and first referral health care. In remote tribal and backward districts, NGOs will be encouraged to operate some government facilities so as to ensure the outreach of health services to the disadvantaged sections of the people. NGO participation will also be encouraged in special programs for the socially underprivileged, as also in IEC activities.

Issues	Effect	Proposed Change or Action
9. Cost sharing and service improvements	Cost sharing has not been properly implemented, resulting in low levels of funding for supplies, operations and maintenance.	The Government will set up a working group to examine the issue of cost sharing (last revised in 1988) while protecting the poorest sections of society. The guiding principle for cost sharing would be to partly cover non salary recurrent costs. In addition to this adequate administrative and organisational mechanisms for implementing schemes for cost sharing would be put in place. A mechanism to give back a major portion of revenues raised by the institution will be introduced.
10. Prevention and control of major communicable diseases	The existing surveillance system is very weak, especially at the secondary level and in urban areas.	The project will establish an effective surveillance system which will contribute to reducing morbidity and mortality rates due to major communicable diseases.
11. Contracting services	Contracting services are under-utilised.	DOHFW will monitor the cost-effectiveness and quality of existing contracted services. Furthermore, the Government will consider new proposals for contracting-out health services, especially support services such as laundry, cleaning, manufacturing I.V. fluids, etc.
12. Safeguarding the operations and maintenance component of the health budget	The existing secondary hospitals face operational deficiencies and function poorly due to a lack of non-salary recurrent funds.	The State Government will make adequate provision in the health budget for drugs and other medical supplies, and for maintenance of equipment and buildings.
13. Consolidation versus expansion of institutions	The State Government has been rapidly expanding the number of subcentres, PHCs, CHCs, taluka level hospitals, and sub-district hospitals without focusing on improving the physical facilities in existing institutions.	Further expansion of beds and hospitals will be strictly need-based, and will be undertaken only after ensuring that existing facilities are properly maintained and utilised.
14. Poverty alleviation	About 40% of households are below the poverty line in Karnataka. In this group, health indicators such as mortality and morbidity rates, are especially adverse.	The investment made in this project, especially through special programs for the disadvantaged section(e.g., SC/ST and women) will aim at augmenting the productivity/earning potential through better health status.

Issues	Effect	Proposed Change or Action
15. Allocate most of the incremental funds for the health sector to primary and secondary levels of care	Primary and secondary levels of health care have not been receiving the requisite allocation of funds. This has resulted in a shortage of drugs, machinery equipment, other materials and supplies, lack of proper buildings and poor maintenance of facilities. Imbalance in the allocation of funds has led to duplication of services and inefficient utilisation of meagre resources.	The country, pursuant to the health sector reforms, will ensure that within the allocation for the health sector, the share of resources for primary and secondary levels of health care shall be increased in each fiscal year until FY02.
16. Safeguard the operations and maintenance component of the health budget	The existing secondary level hospitals function poorly because of inadequate allocation of funds for operational and maintenance purposes .	Taking into account the budgetary provision, the state government will maintain sufficient funds in the non-plan health budget for making available adequate supplies of drugs and other material supplies at secondary level hospitals, and for maintenance of equipments and buildings
17. Surveillance system for the major communicable diseases	In the absence of a properly developed surveillance system, it is not possible to achieve, control, eliminate or eradication some of the diseases which are possible only within a well developed surveillance system	The existing system for surveillance of some disease will be developed to ensure proper and systematic flow of information about major communicable diseases according to priorities of the state from most peripheral levels to the state headquarters and also to the GOI. The surveillance system proposed to be developed will ensure flow of information- from the village level through functionaries of the health Department to the PHC, from PHC/ CHC to the district level and then to the state headquarters.

7.3 INTERNATIONAL ASSISTANCE FOR HEALTH

After growing rapidly in the 1970s, aid for health stagnated during the 1980s. As a share of official development assistance, aid for health declined from an average of 7 percent for the period 1981-1985 to 6 percent during 1986-90. Total aid flows to the health sector in 1990 were $4.8 billion - almost $4 billion in official development assistance and $0.8 billion from NGOs and foundations. This amounts to about one dollar per person in developing countries.

The trend is for donors to provide aid for health through multilateral channels. The share of multilateral assistance has grown from 25 percent in 1980 to 40 percent in 1990 and is likely to exceed 50 percent by 1995. As a result of the quadrupling of World Bank lending for health over the past six years, disbursement of Bank funds are expected to grow from about $350 million in 1992 to about $1 billion in 1996, making the World Bank the largest single source of external

funding for health. Since the portion of aid going to middle income countries from the World Bank and other development banks is nonconcessional lending, some of the projected increase in lending for health will involve a hardening of terms. It would be desirable for bilateral grant-funding agencies and concessional arms of the developing Banks to increase their assistance to health as well. Box 7.3 outlines the effectiveness of aid by international agencies.

The amount of health aid has stagnated, and its share in total development assistance has declined, even as donors continue to express concern about health. Over the past ten years the United Nations and other international agencies have called for increased investments in development of human resources, including health, by developing countries themselves and by the donor community.

The share of aid going to health should be restored immediately to its earlier level of 7 percent of total official development assistance and should rise substantially over the next five years. Such an increase would have a significant impact on the health status of the poor, particularly if it is directed toward the transitional costs of reallocating government spending to public health measures and essential clinical care and to seriously under funded disease control efforts such as those for tuberculosis and AIDS. A rise in donor assistance of $2 billion, for example, could finance a quarter of the estimated additional costs of a basic packaging low income countries and of strengthened efforts to prevent AIDS. Such an increase, which would boost from 6 to 9 percent the share of total official aid going to health, would be feasible if other donors matched the rise in the World Bank disbursement for health that is expected to occur in coming years.

There are a number of ways, in addition to the traditional annual and multilayer programming of aid by individual donors, for the international community to mobilise more financial resources for health. Coordinated sector wide pledging at consultative group meetings and donor round tables has been used successfully in Tanzania and Zambia. Another approach is program specific pledging as illustrated by the dozens of national AIDS control donor meetings chaired by WHO in recent years. The role of debt-for-development swaps as a means of generating extra resources for both government and NGO provided health services should be assessed in this context.

BOX 6.3: HEALTH ASSISTANCE AND THE EFFECTIVENESS OF AID

Recent evaluations of the effectiveness of aid, including a classic 1986 study commissioned by the world donor community, point toward the same conclusion: most aid has been successful, but a considerable share, perhaps a third or more, has been much less so, and a small percentage has failed completely or has even been harmful. These broad brush averages hide significant regional differences: in Asia and Latin America performance has been better, in Sub Saharan Africa it has been worse. Aid has been least effective in the poorest countries, where success is most needed.

The reason for inferior performance lie with both donors and recipients. Poor countries and those experiencing political conflict and instability constitute a difficult environment for aid, as they have little administrative capacity or infrastructure. But these difficulties in many cases been compounded by unfortunate policies. Aid projects have been [poorly designed, both technically and because of inadequate understanding of the human, social, institutional, and political environment. When it comes to coordination, both sides have been at fault. Donors have pursued their own objectives without tempting to ensure that their aid compliments that of others. And all too often, aid recipients have played one donor off against another, while ministers and ministries have focused on their own concerns rather than looking to the national good.

Aid for health has generally had a good technical record. it has fit in well with the development priorities, especially in recent year, as the concentration on hospitals and high-technology curative medicine has been replaced by an emphasis on primary and preventive care. There have also been major successes - mainly highly focused initiatives such as the programme for the eradication of the smallpox, the drive against child mortality and the effort to control river blindness in Africa. What is still lacking is the ability of the aid system to help set in place and sustain locally appropriate public health programmes and essential clinical services.

7.4 PRIORITIES FOR JICA FUNDING

To sum up, the projects being considered for funding and the key points for prioritising them are given below.

7.4.1 National Trauma Centre, Delhi

Analysis reveals that the proposed National Trauma Centre in Delhi is an essential requirement for the city due to the rapid increase in the number of vehicles in the city. The number of road accidents in the city has increased tremendously in the past two years. The city at present does not have an effective trauma centre. To be noted is that this project is at an advanced stage at present. All the necessary approvals have been obtained by the MOHFW, and funding for this project would lead to fast results.

The consultants would like to emphasise on the health care aspect of this project. This project will provide immediate relief to the common citizen in the city. This conforms with the Japanese grant aid policy for funding projects where the cost effectiveness is high.

7.4.2 Hospital Projects

The consultants are of the view that there is a genuine need for state of the art medical equipment in all the hospitals that are under consideration for funding. However, analysis reveals that sustainabilty is a very important factor. Among five hospitals reviewed, the probability of sustenance and effective usage of equipment is the highest in the King George's Medical College, Lucknow and the Cama and Albless Hospital, Mumbai.

APPENDIX A

Appendix A

LIST OF PERSONS CONTACTED

A -1 NEW DELHI

1. Mr. Amarjeet Singh, Director (IH), Ministry of Health & Family Welfare, Government of India
2. Mr. Ashok Mehta, Under Secretary, Ministry of Health and Family Welfare, Government of India
3. Mr. G. S. Grewal, Under Secretary, Ministry of Finance, Department of Economic Affairs. Government Of India
4. Mr. Ramesh Chandra, Principal Secretary - Health, Government of Delhi
5. Dr. (Mrs.) Jha, Director of Health Services, Directorate of Health Services, Government of Delhi
6. Mr. Mukhopadhyaya, Director, Voluntary Health Association of India
7. Ms. R. Masilamani, Chief, Health Services Division, Office of Population, Health & Nutrition, U. S. Agency for International Development (USAID)
8. Mr. John Rogosch, Director, Office of Population, Health & Nutrition. U. S. Agency for International Development (USAID)
9. Mr. A. H. K. Ghauri, Institutional Development Advisor, British Development Cooperation Office, Overseas Development Administration (ODA)
10. Mr. G. V. Abhayankar, Sanitary Engineer, The World Bank
11. Mr. Bjarne Ølshøj Jensen, Counsellor, Dev., DANIDA, Royal Danish Embassy
12. Mr. Antony Kokoth, Program Manager, Christian Children's Fund
13. Ms. Gita Pillai, Director, Nutrition & Health, CARE-INDIA
14. Ms. Nirmala Gupta, Deputy Director, Nutrition & Health, CARE-INDIA
15. Mr. P.M. Jose, Senior Manager-Progamming, Catholic Relief Services

A -2 HARYANA

1. Mrs. Veena Eagleton, Health Commisioner and Secretary, Government of Haryana
2. Dr. P. L. Jindal, Director General, Public Health, Government of Haryana
3. Mr. Rajinder Singh, Deputy Director, (Monitoring and Evaluation), Government of Haryana
4. Mr. K. L. Sharma, Research Officer, Harayana State Institute of Health and Family Welfare. Government of Haryana
5. Dr. S. S. Yadav, Director, Pt. B.D. Sharma P.G. Institute Of Medical Sciences. Rohtak
6. Dr. Sunder Lal, Professor, Department of Community Medicine, Pt. B.D. Sharma P.G. Institute Of Medical Sciences, Rohtak

7. Dr. B. P. Dass, Professor, Department of Radiation Oncology and Acting Medical Superintendent, Pt. B.D. Sharma P.G. Institute Of Medical Sciences, Rohtak
8. Dr. D. S. Mishra, Professor and Head, Department of Radiology, Pt. B.D. Sharma P.G. Institute Of Medical Sciences, Rohtak
9. Dr. D. R. Arora, Professor and Head, Department of Microbiology, Pt. B.D. Sharma P.G. Institute Of Medical Sciences, Rohtak
10. Dr. G. P. Singh, Associate Professor, Department of Biochemistry, Pt. B.D. Sharma P.G. Institute Of Medical Sciences, Rohtak
11. Dr. O. P. Phogat, Deputy Medical Superintendent and Purchase Officer, Pt. B.D. Sharma P.G. Institute Of Medical Sciences, Rohtak
12. Dr. D. S. Dhanker, Deputy Medical Superintendent (Administration), Pt. B.D. Sharma P.G. Institute Of Medical Sciences, Rohtak
13. Dr. T. S. Jaiswal, Professor, Clinical Pathology, PT. B.D. Sharma P.G. Institute Of Medical Sciences, Rohtak
14. Dr. Rajiv Sen, Associate Professor, Pathology, PT. B.D. Sharma P.G. Institute Of Medical Sciences, Rohtak
15. Dr. Shashi Kant, Deputy Medical Superintendent and Officer-in-charge, Laundry. PT. B.D. Sharma P.G. Institute Of Medical Sciences, Rohtak
16. Village Health Worker, Lakria
17. Multipurpose Health Worker, Sub Centre, Dhandhlan
18. Doctors, Community Health Centre, Dighal
19. Doctors, Civil Hospital, Rohtak

A -3 MAHARASHTRA

1. Dr. Subhash Salunke, Director of Health Services, Government of Maharashtra
2. Dr. Ganeriwal, Director of Medical Education and Research, Government of Maharashtra
3. Mr. Berde, Deputy Secretary, Department of Public Health, Government of Maharashtra
4. Dr. Dongaonkar, Dean, J.J. Group of Hospitals
5. Dr. Kamalakar, Head - Obs. & Gynae, J.J. Group of Hospitals
6. Dr. Alka Deshpande, Head - Medicine, J.J. Group of Hospitals
7. Dr. Khanna, Head - Paediatrics, J.J. Group of Hospitals
8. Dr. Achala Daga, Head - Epidemiology and Preventive Care, J.J. Group of Hospitals
9. Dr. Shinde, Department of Medicine , J.J. Group of Hospitals
10. Mr. Shedge, Administrative Officer, J.J. Group of Hospitals
11. Mr. Ghardi, Administrative Officer, Grant Medical College
12. Mr. R. T. Mohit, Office Superintendent, Administrative Department, J.J. Group of Hospitals

13. Dr (Mrs) V. S. Shangari, Civil Surgeon, Thane District Civil Hospital
14. Dr (Mr) Male, Deputy Director, Thane Circle
15. Dr. Gawli, Office of the Director of Health Services, Government of Maharashtra
16. Dr. K. G. Tripathy, Superintendent, Cama & Albless Hospital
17. Dr. Anjali D. Patil, Resident Medical Officer, Cama & Albless Hospital

A -4 ORISSA

1. Ms. Meena Gupta, Secretary - Health, Government of Orissa
2. Dr. S. S. Patra, Director - Medical Education, Government of Orissa
3. Dr. S. Barik, Director - Health, Government of Orissa
4. Dr. K. Das, Joint Director - Health, Government of Orissa
5. Dr. J. K. Sahu, Chief Medical Officer, Capital Hospital, Bhubaneswar
6. Dr. M. D. Nayak, Administrator, Capital Hospital, Bhubaneswar

A -5 UTTAR PRADESH

1. Dr. Bachchi Lal, Special Secretary - Health, Government of Uttar Pradesh
2. Dr. P. K. Mishra, Principal, King George's Medical College, Lucknow
3. Mr. K. C. Mishra, Finance Controllor, King George's Medical College and GM&AM, Lucknow
4. Prof. U. K. Puri, Professor and Head, Department of Cardiology, King George's Medical College, Lucknow
5. Dr. R. K. Srivastava, Director General - Medical Education, Government of Uttar Pradesh
6. Mr. Shekhar Agarwal, Secretary - Finance, Government of Uttar Pradesh
7. Dr. Mishra, Medical Superintendent, Experimental Teaching Health Subcentre (Banthara)
8. Dr. Maj. Vpsrovahava, Medical Officer, Experimental Teaching Health Subcentre (Mati)
9. Dr. Rajesh Vising, Medical Officer, Experimental Teaching Health Subcentre (Mati)
10. Dr. D. K. S. Khushawa, Community Health Centre

APPENDIX B

Appendix B

DOCUMENTS REFERRED TO DURING THE STUDY

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APPENDIX C

Appendix C

PATTERN OF FINANCIAL ASSISTANCE FOR BLOOD BANKS-

TABLE C-1: SUMMARY OF FINANCIAL ASSISTANCE PER UNIT

Blood Component Separation Facilities	34
Equipments	Rs. 2.77 million one time
Consumables	Rs. 1.05 million per annum
Salaries of one Technical Assistant	Rs. 60,000 per annum
Contingency	Rs. 12,000 per annum

TABLE C-2: MODERNISATION OF BLOOD BANKS

Equipment	Rs. 0.32 one time
Consumables	Rs. 0.20 million per annum

TABLE C-3: ZONAL BLOOD TESTING CENTRES

Salaries	Rs. 84,000 per annum
Consumables	Rs. 16,000
HIV kits and kits for quality control	As required

APPENDIX D

Appendix D

STATES WHERE CARE-INDIA WORKS

RAJASTHAN

- INHP (Integrated Nutrition and Health Program)
- NHED (Nutrition and Health Education)
- GPE (Girls Primary Education)

MADHYA PRADESH-BHOPAL

- INHP
- Improved Health Care for Adolescent Girls in Urban Slums-Jabalpur

GUJARAT

- Supplemental Feeding through PNP
- ARI (Acute Respiratory Infection) Project

MAHARASHTRA

- Supplemental Feeding through PNP
- ARI

KARNATAKA

- Supplemental Feeding through PNP
- BIG (Bio-Intensive Gardening)

ANDHRA PRADESH

- INHP
- SLA (Savings and Loan Associations)
- ITWEP (Integrated Tribal Women Empowerment Project)

UTTAR PRADESH

- INHP
- SLA
- Dairy Project
- Improving women's health in urban slums-Allahabad
- GPE

- Improving Women's Reproductive Health and Family Spacing
- CREDIT (Credit for Empowerment and Development through Institution Building and Training)

WEST BENGAL

- INHP

BIHAR

- INHP
- CREDIT

ORISSA

- INHP
- Community Demand for Impregnated Mosquito Nets Projects
- CREDIT
- Improving Women's Reproductive Health and Family Spacing

- indicates an Ongoing Project
- indicates a Proposed Project

APPENDIX E

Appendix E

HEALTH AND POPULATION: STATE-WISE DATA

The following tables in the appendix provide health and popualtion related details of India.

• TABLE E.1: TRENDS IN CENSUS POPULATION IN INDIA - 1990-91

Census Year	Total Population (in lakhs)			Decennial Change (percent)	Geometric Growth Rate	Sex-ratio (Females per 1000 Males)	Density of Population per Sq. Km.	Percentage of Urban Population to Total Population
	Persons	Males	Females					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1901	2,384.0 @	1,207.9 @@	1,173.6	-	-	972 $$	77	10.84
1911	2,520.9	1,283.8	1,237.1	5.75	(+) 0.56	964	82	10.29
1921	2,513.2	1,285.5	1,227.7	(-) 0.31	(-) 0.03	955	81	11.18
1931	2,789.8 @	1,429.3	1,357.9	11.00	(+) 1.05	950 $$	90	11.99
1941	3,186.6 @	1,636.8	1,546.9	14.22	(+) 1.34	945 $$	103	13 86
1951	3,610.9	1,855.3	1,755.6	13.31	(+) 1.26	946	117	17.29
1961	4,392.3	2,262.9	2,129.4	21.51	(+) 1.98	941	142	17.97
1971	5,481.6	2,840.5	2,641.1	24.80	(+) 2.24	930	177 $	19.91
1981 *	6,851.8	3,544.0	3,307.8	24.70	(+) 2.23	933	216 #	23.31
1991 **	8,463.0 &	4,392.3 &	4,070.7 &	23.85 !	(+) 2.16	927 !	274 !	26.13

Source: Registrar General, India.

Note:

@ The distribution of population by sex of Pondicherry for 1901 (246, 354), 1931 (258, 628) & 1941 (285, 011) is not available. The figures of these years are, therefore, exlucisve of these population so far as distribution by sex is concerned.

$ Excludes Jammu & Kashmir

@@ Sex wise distribution of Chandan Nagar (26, 831) of West Bengal and Gonda (18, 810) of Uttar Pradesh is not available.

* Includes interpreted population of Assam where the 1981 census could not be conducted owing to disturbed conditions prevailing in that state then.

** Includes projected population of Jammu & Kashmir where 1991 census is yet to be held.

P Provisional Data.

$$ Excludes Pondicherry.

& Includes projected population of J&K where 1991 census could not be held.

! Assam & J&K population not taken into consideration

- TABLE E.2: ESTIMATED POPULATION BY SEX AT ALL INDIA LEVEL DURING 1971-91

Year *	Population in ('000)			Sex ratio Males per 1000 Females	Annual Growth Rate (%)
	Total	Males	Females		
(1)	(2)	(3)	(4)	(5)	(6)
1971	547,137	283,503	263,634	1,075	2.28
1972	559,623	290,069	269,544	1,076	2.28
1973	572,412	296,771	275,641	1,076	2.29
1974	585,504	303,604	281,900	1,076	2.29
1975	598,892	310,560	288,332	1,077	2.29
1976	612,575	317,632	294,943	1,076	2.28
1977	626,545	324,811	301,734	1,076	2.28
1978	640,796	332,086	308,710	1,075	2.27
1979	655,321	339,448	315,873	1,074	2.27
1980	670,112	346,885	323,227	1,073	2.26
1981	685,159	354,384	330,775	1,071	2.25
1991	838,584 @	435,216 @	403,368 @	1,079	2.24

Source: Registrar General, India

Note:

* As on 1st March of the Year.

@ Excludes J&K where 1991 census was not held.

- TABLE E.3: PROJECTED POPULATION (1000) AS ON 1ST MARCH 1986, 1991, 1996, 2001 AND 2006

1986	1991	1996	2001	2006
762,917.7	843,595.7	923,709.3	1,003,118.5	1,082,249.6

- TABLE E.4: BIRTH RATES, DEATH RATES AND ASSUMED GENERAL FERTILITY RATES 1986-2006

	1986-91	1991-96	1996-2001	2001-2006
BR	30.9	27.5	24.9	23.0
DR	10.8	9.4	8.4	7.8
GFR	141.0	123.0	109.0	98.0

Source: Report of the Standing committee of Experts on Population Projections, CSD (Mimeographed).

Note:

BR = Birth Rate.

DR = Death Rate.

GFR = General Fertility Rate.

- TABLE E.5: BIRTH RATE, DEATH RATE AND NATURAL GROWTH RATE IN INDIA 1989-1993

(Rate per 1000 population per annum)

Year	Crude Birth Rate			Crude Death Rate			Natural Growth Rate		
	Rural	Urban	Combined	Rural	Urban	Combined	Rural	Urban	Combined
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1989	32.2	25.2	30.6	11.1	7.2	10.3	21.1	18.0	20.3
1990	31.7	24.7	30.2	10.5	6.8	9.7	21.2	17.9	20.5
1991 *	30.9	24.3	29.5	10.6	7.1	9.8	20.3	17.2	19.7
1992 *	30.9	23.1	29.2	10.9	7.1	10.1	20.0	16.0	20.1
1993 *	30.3	23.5	28.5	10.5	5.7	9.2	20.0	17.3	19.3

Source: Data for 1989 to 1993 have been obtained from Registrar General's Office.

Note:

The aggregated estimates for (1971-78) India exclude Bihar & West Bengal

* = Excludes Jammu and Kashmir

- TABLE E.6: INFANT MORTALITY RATES IN INDIA 1989-1993

Period	Infant Mortality Rate (per thousand live births)		
	Rural	Urban	Combined
1	2	3	4
1989	102	62	94
1990	86	50	80
1991	87	53	80
1992	85	53	79
1993	82	45	74

Source: Sample Registration System, Registrar General, India.

Note:

The rates for 1971 to 1989 are estimated on the basis of sample registration system conducted by the Office of the Registrar General of India.

- TABLE E.7: MORTALITY INDICATORS IN INDIA 1986 TO 1990

Indicators	Years				
	1986	1987	1988	1989	1990
(1)	(2)	(3)	(4)	(5)	(6)
	Rural				
Crude Death Rate	12.2	12.0	12.0	11.1	10.5
Infant Mortality Rate	104.6	104.0	102.0	98.0	86.0
Neo-Natal Mortality Rate	65.5	63.6	62.0	62.1	57.4
Post-Natal Mortality Rate	39.1	40.5	40.1	36.4	28.9
Peri-Natal Mortality Rate	51.8	54.4	53.1	50.9	51.7
Still Birth Rate	10.5	13.6	13.9	13.1	11.9
	Urban				
Crude Death Rate	7.6	7.4	7.7	7.2	6.8
Infant Mortality Rate	62.0	61.0	62.0	58.0	50.0
Neo-Natal Mortality Rate	36.2	33.3	34.6	31.4	30.9
Post-Natal Mortality Rate	25.8	27.3	27.5	26.3	19.5
Peri-Natal Mortality Rate	32.7	32.4	34.5	31.0	34.0

Still Birth Rate	9.0	9.8	11.7	11.2	11.0
	Combined				
Crude Death Rate	11.1	10.9	11.0	10.3	9.7
Infant Mortality Rate	96.4	95.0	94.0	91.0	80.0
Neo-Natal Mortality Rate	59.8	57.7	56.8	56.4	52.5
Post-Natal Mortality Rate	36.6	37.7	37.7	34.5	27.2
Peri-Natal Mortality Rate	48.1	50.1	49.6	47.2	48.4
Still Birth Rate	10.2	12.9	13.5	12.7	11.8

Source: Sample Registration System, Registrar General, India.

- TABLE E.8: AGE SPECIFIC DEATH RATES (0-14 YEARS) IN INDIA 1986-89

Year	Age Group	Rural		Urban	
		Male	Female	Male	Female
1986	0-4	38.6	43.3	20.3	21.5
	5-9	3.3	4.2	1.6	1.8
	10-14	1.6	1.8	0.9	1.1
1987	0-4	37.8	41.8	18.1	18.2
	5-9	3.3	4.4	1.3	1.9
	10-14	1.6	1.6	1.1	0.9
1988	0-4	35.1	39.1	18.8	18.7
	5-9	3.6	3.9	1.6	1.8
	10-14	1.6	1.8	0.7	1.2
1989	0-4	31.3	35.2	16.5	17.2
	5-9	2.7	3.8	1.4	1.6
	10-14	1.6	1.9	0.8	0.8

Source: Sample Registration System (SRS) Registrar General, India.

Note:

For 1981 and onwards includes Bihar & West Bengal.

- TABLE E.9: PROJECTED VALUES OF EXPECTATION OF LIFE AT BIRTH

Period	Projected Value of expectation of life at birth (in years)		
	Persons *	Males	Females
(1)	(2)	(3)	(4)
1980 (Base Year)	54.4	54.1	54.7
1981-86	56.0	55.6	56.4
1986-91	58.6	58.1	59.1
1991-96	61.1	60.6	61.7
1996-2001	63.5	62.8	64.2
2001	64.8	64.8	65.8

Source: Registrar General of India, Ministry of Home Affairs, Report of the expert committee on population projection. occasional paper no.4 of 1988.

Note : * Estimated by taking sex ratio as 105 males to 100 females.

- TABLE E.10: TOTAL STD CASES SEEN AND TREATED IN STD CLINICS DURING 1989 TO 1990

Sl. No.	Name of States/Union Territory	1989	1990 (Prov)
(1)	(2)	(3)	(4)
1.	Andhra Pradesh	83,121	86,316
2.	Arunachal Pradesh	0	0
3.	Assam	2,327	2,812
4.	Bihar	36,793	18,423
5.	Goa Daman & Diu	2,419	3,014
6.	Gujarat	127,344	98,362
7.	Haryana	2,973	5,306
8.	Himachal Pradesh	3,460	3,907
9.	Jammu & Kashmir	36,422	16,282
10.	Karnataka	79,631	87,114
11.	Kerala	24,278	26,201
12.	Madhya Pradesh	29,387	31,479
13.	Maharashtra	426,107	227,822
14.	Manipur	2,607	3,012
15.	Meghalaya	4,313	4,518
16.	Mizoram	2,792	2,532
17.	Nagaland	2,118	1,981
18.	Orissa	98,567	91,643
19.	Punjab	6,517	2,321
20.	Rajasthan	21,219	26,508
21.	Sikkim	0	0
22.	Tamil Nadu	229,473	243,871
23.	Tripura	3,812	4,012
24.	Uttar Pradesh	31,503	36,037
25.	West Bengal	34,127	43,491
26.	Association for Social Health in India	25,746	26,612
	Union Territories		
1.	Andaman & Nicobar Islands	0	0
2.	Chandigarh	397	237
3.	Dadar & Nagar Haveli	0	0
4.	Delhi	36,792	38,315
5.	Lakshadweep	0	0
6.	Pondicherry	9,413	9,612
	TOTAL:	**1,363,838**	**1,141,740**

Source:Adviser S.T.D

• TABLE E.11: PERCENTAGE DISTRIBUTION OF DEATHS FOR SELECTED MAJOR CAUSE-GROUPS BY SEX AND AGE 1989 AND 1990

Sl. No.	Major cause groups	Years	Sex M/F	Age groups in years								
				Below 1	1-4	5-14	15-24	25-34	35-44	45-54	55 +	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.	Accidents & Injuries	1989	M	2.1	4.1	12.0	20.8	20.3	15.3	11.2	14.2	100.0
			F	2.5	8.0	13.6	28.4	19.9	9.5	7.3	10.9	100.0
		1990	M	2.2	4.7	12.4	19.9	22.7	12.9	12.8	12.4	100.0
			F	2.8	6.4	12.7	27.7	22.9	8.9	6.1	12.4	100.0
2.	Fevers	1989	M	10.7	17.1	11.5	6.1	6.0	7.8	10.3	30.5	100.0
			F	11.6	22.2	11.5	8.9	7.6	6.5	6.8	24.8	100.0
		1990	M	8.4	15.7	11.2	8.2	6.3	7.0	8.3	34.9	100.0
			F	10 7	19.1	13.1	7.0	8.6	6.8	7.7	27.0	100.0
3.	Digestive disorders	1989	M	7.1	16.1	11.1	7.6	9.9	10.4	11.5	26.2	100.0
			F	7.4	27.3	10.2	8.3	8.5	8.0	7.3	22.9	100.0
		1990	M	6.0	15.8	11.1	9.4	9.4	7.9	11.6	28.8	100.0
			F	6.9	20.6	12.8	8.8	9.3	6.2	8.2	27.2	100.0
4.	Coughs (disorders - respiratory system)	1989	M	13.4	7.3	2.9	2.7	4.5	8.4	12.9	48.0	100.0
			F	17.5	13.8	5.5	4.0	6 6	7.8	9.0	35.8	100.0
		1990	M	12.3	6.6	3.0	2.4	4.9	8.3	12.8	49.7	100.0
			F	16.7	11.7	5.1	3.9	6.1	6.8	8.9	40.9	100.0
5.	Disorders of the central nervous system	1989	M	4.1	6.6	6.6	5.9	4.0	6.0	9.0	57.9	100.0
			F	4.8	6.6	8.4	4.8	7.7	4.1	9.1	54.4	100.0
		1990	M	6.1	5.9	5.7	3.1	3.9	4.5	8.6	61.0	100.0
			F	4.3	6.6	8.6	5.6	5.3	4.1	7.1	58.4	100.0
6.	Disease of circulatory system	1989	M	3.5	4.3	1.4	3.6	6.5	9.5	17.0	54.2	100.0
			F	4.0	9.2	2.9	6.6	9.7	8.2	10.9	48.5	100.0
		1990	M	5.0	3.1	1.9	4.0	6.0	10.7	18.0	51.4	100.0
			F	6.5	9.3	4.5	7.4	7.3	8.4	13.0	43.5	100.0
7.	Other clear symptoms	1989	M	4.5	6.5	5.8	6.2	7.5	11.0	15.2	43.4	100.0
			F	5.2	10.5	7.2	7.9	10.7	9.3	17.4	32.9	100.0
		1990	M	4.4	4.3	5.3	7.2	7.0	9.2	16.0	46.6	100.0
			F	3.8	7.2	7.5	6.9	8.7	12.7	16.2	36.9	100.0

Survey : Survey of causes of death (Rural) 1990 - Registrar General of India.

• TABLE E.12: PERCENTAGE DISTRIBUTION OF DEATHS DUE TO TEN SELECTED DISEASES BY AGE GROUPS - ALL INDIA - 1991

Sl. No.	Diseases	Age groups in years								
		Below 1 Yr.	1-4	5-14	15-24	25-34	35-44	45-54	60 +	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Asthma & Bronchitis	0.0	1.1	0.8	1.1	1.9	4.1	20.9	69.2	100.0
2.	Heart Attack	0.1	0.0	0.7	2.8	7.4	10.4	30.0	48.6	100.0
3.	Pneumonia	44.7	31.3	10.6	2.4	2.0	1.1	2.6	5.3	100.0
4.	T.B. of Lungs	0.1	0.7	2.0	6.2	15.8	19.2	26.8	29.3	100.0
2.5.	Prematurity	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
6.	Cancer	0.4	1.0	1.7	4.1	5.2	11.7	34.0	41.9	100.0
7.	Anaemia	13.1	16.2	6.2	5.8	6.1	5.8	12.5	34.3	100.0
8.	Paralysis	0.0	1.0	0.9	2.2	2.9	4.5	17.7	70.7	100.0
9.	Vehicular Accidents	0.7	2.1	13.2	20.8	27.6	14.2	11.0	10.5	100.0
10.	Gastro-enteritis	12.7	20.0	20.0	4.5	5.4	5.4	11.7	20.4	100.0

Source :Survey of causes of deaths (Rural) - 1991.

• TABLE E.13: NUMBER OF DENTISTS REGISTERED WITH DENTAL COUNCIL OF INDIA 1951-1992

Year	Dentists registered
1	2
1981	8,648
1982	8,656
1983	8,801
1984	8,725
1985	9,598
1986	9,725
1987	9,750
1988	9,796
1989	10,475
1990	11,011
1991	10,751
1992	11,300

Source : Dental Council of India

• TABLE E.14: NUMBER OF DAIS TRAINED DURING 1974 TO 31-3-1993

Sl. No.	State/UT	Estimated No. of Untrained Dais	Dais trained as on 1-4-91 since 1974	Dais trained during 1992-93 (Apr., '92-Mar., '93	Total Dais trained as on 31-03-93	Period upto which information relates to
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Andhra Pradesh	3,045	44,835	NR	44,835**	31-03-87
2.	Arunachal Pradesh @	0	440	NR	440	31-03-91
3.	Assam	1,409	14,229	NR	14,229	31-12-91
4.	Bihar	NR	56,029	NR	56,029	31-03-85
5.	Goa Daman & Diu	0	178	0	178	31-12-92
6.	Gujarat	5,210	29,911	774	30,685	31-03-93
7.	Haryana	500	12,401	91	12,492	31-03-93
8.	Himachal Pradesh	NR	9,418	0	9,418	31-03-93
9.	Jammu & Kashmir	NR	4,244	NR	4,244	31-03-85
10.	Karnataka	1,465	43,302	1639	44,941	31-03-93
11.	Kerala	0	2,906	0	2,906	31-03-93
12.	Madhya Pradesh	NR	43,395	NR	43,395	30-09-89
13.	Maharashtra	5,000	39,690	492	40,182	31-03-93
14.	Manipur	NR	1,276	NR	1,276	31-03-91
15.	Meghalaya	0	1,137	NR	1,137	31-03-87
16.	Mizoram	25	1,008	47	1,055	31-03-93
17.	Nagaland	0	0	NR	0	31-03-91
18.	Orissa	40,000	35,847	NR	35,847	31-03-91
19.	Punjab	600	22,267	NR	22,267	31-03-91
20.	Rajasthan	7,856 *	20,214	0	20,214	31-03-93
21.	Sikkim	NR	254	NR	254	30-06-91
22.	Tamil Nadu	8,545	37,226	NR	37,226	30-06-90
23.	Tripura	0	1,468	1	1,469	31-12-92
24.	Uttar Pradesh	28,477 *	145,271	0	145,271	30-06-92
25.	West Bengal	0	38,230	0	32,230	31-03-93
26.	Andaman & Nicobar Islands	150	155	0	155	31-03-93
27.	Chandigarh	90	428	0	428	31-12-92
28.	Dadar & Nagar Haveli	50	238	NR	238	30-06-91
29.	Daman & Diu *	0	0	0	0	31-03-93

30.	Delhi	NR	180	NR	180	31-03-91
31.	Lakshadweep	0	21	NR	21	31-12-91
32.	Pondicherry	10	412	0	412	31-03-93
	TOTAL:	**102,432**	**606,462**	**3044**	**609,506**	

Source: Rural Health Statistics - March 1993

Note:

NR Information not received

$ Dais training programme has since been stopped from 1980 onwards in Kerala state

@ No system of traditional dais is practised in Arunachal Pradesh

** Figures taken from status report on primary health care received in meeting held in January, 1988

* Figures relate to March 1990.

The number of trained dais prior to 1974 was 43,500 which is not included in the above statement. Revised figures received from Maharashtra, Karnataka & Gujarat

- TABLE E.15: NUMBER OF DOCTORS IN GOVT. AGENCIES AND AVERAGE POPULATION SERVED IN DIFFERENT STATES/U.TS. - 1991

Sl. No.	State/UT	Doctors engaged under Govt. agency	Population served per Govt. Doctor	Period to which data relates
(1)	(2)	(3)	(4)	(5)
1.	Andhra Pradesh	1,059	1:61471	31-12-91
2.	Arunachal Pradesh @	233	1:3536	31-12-90
3.	Assam	2,660	1:8750	31-12-91
4.	Bihar	NA	+	31-12-91
5.	Goa Daman & Diu	540	1:2166	31-12-91
6.	Gujarat	3,645	1:11404	31-12-91
7.	Haryana	NA	1:11705	-
8.	Himachal Pradesh	NA	1:5350	-
9.	Jammu & Kashmir	NA	+	31-12-91
10.	Karnataka	3,397	1:13536	31-12-91
11.	Kerala	4,163	1:7213	31-12-91
12.	Madhya Pradesh	NA	+	31-12-91
13.	Maharashtra	NA	+	31-12-91
14.	Manipur	684	1:2675	31-12-91
15.	Meghalaya	322	1:5357	31-12-90
16.	Mizoram	146	1:5000	31-12-91
17.	Nagaland	202	1:5401	31-12-89
18.	Orissa	4,965	1:64178	31-12-91
19.	Punjab	3,462	1:5642	31-12-91
20.	Rajasthan	NA	+	31-12-91
21.	Sikkim	101	1:4297	31-12-89
22.	Tamil Nadu	3,189	1:17879	31-12-91
23.	Tripura	673	1:3822	31-12-90
24.	Uttar Pradesh	8,630	1:15438	31-12-91
25.	West Bengal	NA	+	31-12-91
26.	Andaman & Nicobar Islands	122	1:3448	31-12-91
27.	Chandigarh	864	1:913	31-12-91
28.	Dadar & Nagar Haveli	12	1:11000	31-12-90
29.	Daman & Diu *	19	1:5346	31-12-91
30.	Delhi	NA	1:6233	-
31.	Lakshadweep	28	1:1714	31-12-91
32.	Pondicherry	350	1:2174	31-12-91
	TOTAL:	39,466		

Source: Directorate of Health Services

Note:

+ = Not available. Ratio has been worked out with the annual estimates of population of the year to which the data relates. Govt. agency includes Central/State Govt hospital, public sector undertaking hospital etc.

- TABLE E.16: NUMBER OF HOSPITALS AND BEDS ACCORDING TO RURAL/URBAN AREAS AS ON 1-1-1993

SL No.	States/U.Ts.	Rural		Urban		Total	
		Hospitals	Beds	Hospitals	Beds	Hospitals	Beds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Andhra Pradesh	733	9,491	1,130	17,300	1,863	26,791
2.	Arunachal Pradesh '92	251	1,654	1	822	262	2,476
3.	Assam	151	3,949	117	8,712	268	12,661
4.	Bihar	100	3,018	228	26,072	328	29,090
5.	Goa Daman & Diu	45	1,345	69	2,299	114	3,644
6.	Gujarat	189	6,800	2,181	52,184	2,370	58,984
7.	Haryana	8	543	70	6,485	78	7,028
8.	Himachal Pradesh	19	496	38	3,356	57	3,852
9.	Jammu & Kashmir	65	8,062	2	140	67	8,202
10.	Karnataka	25	3,015	268	34,914	293	37,929
11.	Kerala	1,443	44,103	597	33,096	2,040	77,199
12.	Madhya Pradesh	245	6,182	118	11,959	363	18,141
13.	Maharashtra	469	10,209	2,646	68,711	3,115	78,920
14.	Manipur	25	925	4	636	29	1,561
15.	Meghalaya	0	0	9	1,867	9	1,867
16.	Mizoram	6	196	11	1,108	17	1,304
17.	Nagaland	21	257	10	793	31	1,050
18.	Orissa	122	3,427	162	11,067	284	14,494
19.	Punjab	75	2,330	142	12,341	217	14,671
20.	Rajasthan	15	1,050	203	19,415	218	20,465
21.	Sikkim	0	0	5	575	5	575
22.	Tamil Nadu	89	4,235	319	44,545	408	48,780
23.	Tripura	12	335	13	1,395	25	1,730
24.	Uttar Pradesh	83	2,585	652	44,693	735	47,278
25.	West Bengal	113	7,486	279	47,281	392	54,767
26.	Andaman & Nicobar Islands	2	164	1	412	3	576
27.	Chandigarh	0	0	1	500	1	500
28.	Dadar & Nagar Haveli	0	0	3	70	3	70
29.	Daman & Diu *	0	0	3	150	3	150
30.	Delhi	4	252	78	18,518	82	18,770
31.	Lakshadweep	0	0	2	70	2	70
32.	Pondicherry	0	0	10	2,608	10	2,608
	TOTAL:	**4,310**	**122,109**	**9,382**	**474,094**	**13,692**	**596,203**

Source: Directorate of Health Services

• TABLE E.17: NUMBER OF HOSPITALS AND BEDS ACCORDING TO OWNERSHIP AS 1-1-1993

Sl. No.	States /U.Ts.	Government		Local Bodies		Pvt. & Vol. Org.		Total		Population served per	
		Hospitals	Beds	Hospitals	Beds	Hospitals	Beds	Hospitals	Beds	Hospital	Bed
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Andhra Pradesh	142	2,554	0	0	1,722	24,237	1,863	26,791	36,474	2,536
2.	Arunachal Pradesh '92	262	2,476	0	0	0	0	262	2,476	3,302	349
3.	Assam '91	141	9,687	47	982	80	1,992	268	12,661	92,973	1,968
4.	Bihar '92	237	20,522	1	49	90	8,519	328	29,090	263,335	2,969
5.	Goa Daman & Diu	15	1,881	0	0	99	1,763	114	3,644	10,416	326
6.	Gujarat	263	20,708	76	4,779	2,031	33,497	2,370	58,954	17,765	714
7.	Haryana	58	4,796	0	0	20	2,232	78	7,028	216,185	2,399
8.	Himachal Pradesh	46	3,607	5	58	6	187	57	3,852	92,434	1,368
9.	Jammu & Kashmir '89	65	8,062	0	0	2	140	67	8,202	106,226	868
10.	Karnataka	209	27,216	28	714	56	9,999	293	37,929	156,452	1,209
11.	Kerala	141	28,030	0	0	1,899	49,169	2,040	77,199	14,455	382
12.	Madhya Pradesh	363	18,141	0	0	0	0	363	18,141	186,656	3,535
13.	Maharashtra	445	34,261	87	6,901	2,583	37,758	3,115	78,920	25,921	1,023
14.	Manipur	25	1,461	0	0	4	100	29	1,561	64,973	1,207
15.	Meghalaya	5	1,217	0	0	4	650	9	1,867	202,823	978
16.	Mizoram	13	884	0	0	4	420	17	1,304	41,944	547
17.	Nagaland	31	1,050	0	0	0	0	31	1,050	40,736	1,203
18.	Orissa	250	13,077	5	111	29	1,306	284	14,494	113,519	2,224
19.	Punjab	174	10,786	4	103	39	3,782	217	14,671	95,232	1,409
20.	Rajasthan	218	20,465	0	0	0	0	218	20,465	206,909	2,204
21.	Sikkim '92	5	575	0	0	0	0	5	575	81,200	706
22.	Tamil Nadu	282	37,935	7	479	119	10,366	408	48,780	133,903	1,120
23.	Tripura	25	4,730	0	0	0	0	25	1,730	113,533	1,641
24.	Uttar Pradesh '86	534	34,267	42	985	159	12,026	735	47,278	166,792	2,593
25.	West Bengal	242	47,252	21	603	129	6,912	392	54,767	177,506	1,271

26.	Andaman & Nicobar Islands	3	576	0	0	0	0	3	576	97,385	507
27.	Chandigarh	1	500	0	0	0	0	1	500	664,598	1,329
28.	Dadar & Nagar Haveli	1	50	0	0	2	20	3	70	47,329	2,028
29.	Daman & Diu '92	1	100	0	0	2	50	3	150	34,000	680
30.	Delhi	29	9,298	21	3,756	32	5,716	82	18,770	119,658	523
31.	Lakshadweep	2	70	0	0	0	0	2	70	26,653	762
32.	Pondicherry '92	8	2,462	0	0	2	146	10	2,608	80,800	310
	TOTAL:	**4,235**	**36,5696**	**344**	**19,520**	**9,113**	**210,987**	**13,692**	**596,173**	**3,732,087**	**1,412**

Source: Directorate of Health Services

Note:

* Population served per bed have been worked out on the basis on annual estimates of population as on 1st March and to which the data relates.

- **TABLE E.18: NUMBER OF DISPENSARIES AND BEDS ACCORDING TO RURAL/URBAN AREAS AS ON 1-1-1993**

Sl. No.	States/U.T.s	Rural		Urban		Total	
		Dispen.	Beds	Dispen.	Beds	Dispen.	Beds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Andhra Pradesh	222	38	81	143	303	181
2.	Arunachal Pradesh '92	10	0	1	0	11	0
3.	Assam '91	297	36	28	6	325	42
4.	Bihar '92	411	0	16	96	27	96
5.	Goa Daman & Diu	308	0	321	0	629	0
6.	Gujarat	2,420	1,345	4,828	8,030	7,248	9,375
7.	Haryana	40	18	177	384	217	402
8.	Himachal Pradesh	173	159	21	24	194	183
9.	Jammu & Kashmir '89	583	0	27	0	610	0
10.	Karnataka	596	565	234	344	830	909
11.	Kerala	1,439	95	512	68	1,951	163
12.	Madhya Pradesh	130	0	126	2	256	2
13.	Maharashtra	352	257	7,791	1,365	8,143	1,622

14.	Manipur	39	0	3	0	42	0
15.	Meghalaya	19	0	2	0	21	0
16.	Mizoram	18	180	0	0	18	180
17.	Nagaland	16	64	0	0	16	64
18.	Orissa	156	75	76	60	232	135
19.	Punjab	1,217	4,849	245	622	1,462	5,471
20.	Rajasthan	14	0	269	140	283	140
21.	Sikkim '92	143	0	0	0	143	0
22.	Tamil Nadu '90	147	138	365	140	512	278
23.	Tripura	468	0	6	0	474	0
24.	Uttar Pradesh '86	1,318	5,137	432	592	1,750	5,729
25.	West Bengal	408	0	143	0	551	0
26.	Andaman & Nicobar Islands	0	0	0	0	0	0
27.	Chandigarh	9	0	30	0	39	0
28.	Dadar & Nagar Haveli	3	6	0	0	3	6
29.	Daman & Diu '92	15	0	13	0	28	0
30.	Delhi	97	0	559	0	656	0
31.	Lakshadweep	1	0	2	0	3	0
32.	Pondicherry '92	11	38	15	157	26	195
	TOTAL:	**11,080**	**13,000**	**16,323**	**12,173**	**27,403**	**25,173**

Source: Directorate of Health Services

• TABLE E.19: NUMBER OF DISPENSARIES AND BEDS ACCORDING TO OWNERSHIP AS ON 1-1-1993

Sl. No.	States/U.T.s	Government		Local bodies		Pvt. & Vo. Org.		Total	
		Hospitals	Beds	Hospitals	Beds	Hospitals	Beds	Hospitals	Beds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Andhra Pradesh	101	0	0	0	202	181	303	181
2.	Arunachal Pradesh '92	11	0	0	0	0	0	11	0
3.	Assam '91	317	0	0	0	8	42	325	42
4.	Bihar '92	427	96	0	0	0	0	427	96
5.	Goa Daman & Diu	33	0	0	0	596	0	629	0
6.	Gujarat	216	65	208	134	6,824	9,176	7,248	9,375
7.	Haryana	173	396	3	6	41	0	217	402
8.	Himachal Pradesh	189	174	2	2	3	7	194	183
9.	Jammu & Kashmir '89	610	0	0	0	0	0	610	0
10.	Karnataka	794	840	25	65	11	4	830	909
11.	Kerala	54	163	0	0	1,897	0	1,951	163
12.	Madhya Pradesh	256	2	0	0	0	0	256	2
13.	Maharashtra	179	151	652	687	7,312	784	8,143	1,622
14.	Manipur	20	0	22	0	0	0	42	0
15.	Meghalaya	21	0	0	0	0	0	21	0
16.	Mizoram	18	180	0	0	0	0	18	180
17.	Nagaland	16	64	0	0	0	0	16	64
18.	Orissa	206	70	10	0	16	65	232	135
19.	Punjab	1,429	5,453	21	6	12	12	1,462	5,471
20.	Rajasthan	283	140	0	0	0	0	283	140
21.	Sikkim '92	143	0	0	0	0	0	143	0
22.	Tamil Nadu '90	236	68	247	112	29	98	512	278
23.	Tripura	474	0	0	0	0	0	474	0
24.	Uttar Pradesh '86	1,555	5,329	126	324	69	76	1,750	5,729
25.	West Bengal	246	0	243	0	62	0	551	0
26.	Andaman & Nicobar Islands	0	0	0	0	0	0	0	0

27.	Chandigarh	39	0	0	0	0	0	39	0
28	Dadar & Nagar Haveli	3	6	0	0	0	0	3	6
29.	Daman & Diu '92	2	0	0	0	26	0	28	0
30.	Delhi	308	0	199	0	149	0	656	0
31.	Lakshadweep	3	0	0	0	0	0	3	0
32.	Pondicherry '92	15	44	0	0	11	151	26	195
	TOTAL:	**8,377**	**13,241**	**1,758**	**1,336**	**17,268**	**10,596**	**27,403**	**25,173**

Source: Directorate of Health Services

- TABLE E.20: NUMBER OF HOSPITALS , NUMBER OF HOSPITAL BEDS AND NUMBER OF BEDS ALL TYPES ALONGWITH RATIO

Years (as on 31st Dec.)	No. of hospitals	No. of hospitals per 1,000,000 population	No. of hospital beds		No. of beds (all types)	
			Actual	Ratio per 100,000 population	Actual	Ratio per 100,000 population
1988	10,848	13	598,059	74	751,091	95
1989	11,079	13	602,490	74	794,712	97
1990	11,571	13	629,453	75	806,409	97
1991	11,174	13	642,103	75	810,548	95
1992	13,692	16	596,203	70	834,650	97

Source: Directorate of Health Services

Figures are provisional