JAPAN INTERNATIONAL COOPERATION AGENCY

NEW DELHI

HEALTH SECTOR PROFILE OF INDIA

FINAL REPORT

TATA CONSULTANCY SERVICES

MANAGEMENT CONSULTANCY DIVISION

JANUARY 1997

JAPAN INTERNATIONAL COOPERATION AGENCY

NEW DELHI

HEALTH SECTOR PROFILE OF INDIA

FINAL REPORT

TATA CONSULTANCY SERVICES

MANAGEMENT CONSULTANCY DIVISION
VIKRAM TOWERS, 3RD FLOOR, RAJENDRA PLACE,
NEW DELHI - 8

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

ABER	Annual Blood Examination Rate
AIDS	Acquired Immuno Deficiency Syndrome
AIIMS	All India Institute of Medical Sciences
ANM	Auxiliary Nurse-Midwife
APAC	AIDS Prevention and Control
API	Annual Parasite Incidence per thousand
ARI	Acute Respiratory Infections
ARI	Acute Respiratory Infection
B. Sc..	Bachelor of Science
BHEL	Bharat Heavy Electrical Ltd.
BIG	Bio-Intensive Gardening
BSE	Blood Slide Examination
BSI	Botanical Survey of India
CAHP	Coordinating Agency for Health Planning
CASA	Church's Auxiliary for Social Action
CBHI	The Central Bureau of Health Intelligence
CBSE	Central Board of Secondary Education
CCF	Christian Children's Fund
CCRAS	Central Council for research in Ayurveda and Siddha
CCRH	Central Council for Research in Homeopathy
CCRUM	Central Council for Research in Unani Medicine
CCRYN	Central Council for Research in Yoga and Naturopathy
CGHS	Central Government Health Scheme
CHC	Community Health Centre
CHEB	Central Health Education Bureau
CHETNA	Centre for Health Education Training and Nutrition Awareness
CHG	Community Health Guide
CHS	Central Health Service
CINI	Child In Need Institute
CME	Continuing Medical Education
CMPHE	Continuing Medical and Public Health Education
CMR	Child Mortality Rate
CP	Counterparts
CPCB	Central Pollution Control Board
CPR	C.P. Ramaswamy Aiyer Environment Education
CREDIT	Credit for Empowerment and Development through Institution Building and Training
CRI	Central Research Institute
CRS	Catholic Relief Services
CSS	Centrally Sponsored Scheme
CSSM	Child Survival and Safe Motherhood
DANIDA	Danish International Development Agency
DBCS	District Blindness Control Societies
DDCs	Drug Distribution Centres
DDG	Deputy Director General
DGHS	Directorate General of Health Services

DHE	Diploma in Health Education
DoFW	Department of Family Welfare
DoH	Department of Health
DoISM&H	Department of Indian System of Medicine and Homeopathy
DTC	District Tuberculosis Centre
DTP	District Tuberculosis Programme
EC	European Commission
EIA	Environment Impact Assessment
EOC	Emergency Obstetrics Care
ESI	Employees' State Insurance
ESIC	Employees State Insurance Corporation
FPAI	Family Planning Association of India
FRUs	First Referral Units
FSDC	Field Study & Demonstration Centre
FSI	Forest Survey by Forest Survey of India
FTDs	Fever Treatment Depots
FW	Family Welfare
FYP	Five Year Plan
GDP	Gross Domestic Product
GIC	General Insurance Corporation of India
GOI	Government of India
GPE	Girls Primary Education
HE	Health Education
HELLIS	Health Literature, Library and Information Services
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
ICDS	Integrated Child Development Scheme
ICMR	Indian Council of Medical Research
IDBI	Industrial Development Bank of India
IDD	Iodine Deficiency Disorders
IEC	Information, Education and Communication
IFPS	Innovations in Family Planning Services
IMA	Indian Medical Association
IMR	Infant Mortality Rate
IMR	Infant Mortality Rate
INHP	Integrated Nutrition and Health Program
IPP	India Population Project
ISM&H	Indian Systems of Medicine and Homeopathy
ITWEP	Integrated Tribal Women Empowerment Project
IUDs	Intra Uterine Devices
Japan ODA	Japan Official Development Assistance
JICA	Japan International Cooperation Agency
JIPMER	Jawaharlal Institute of Post-Graduate Medical Education and Research
KGMC	King George's Medical College
MAP	Malaria Action Programme
MBBS	Bachelor of Medicine and Bachelor of Surgery
MCH	Maternal and Child Health Care
MDT	Multi Drug Treatment
MF	Microfilaria

MIS	Management Information System
MMR	Maternal Mortality Rate
MNP	Minimum Needs Programme
MOEF	Ministry of Environment and Forests
MOF	Ministry of Finance
MOHFW	Ministry of Health and Family Welfare
MPO	Modified Plan of Operation
MPW	Multi Purpose Worker
MRTS	Mass Rapid Transport System
MSO	Medical Stores Organisation
MTP	Medical Termination of Pregnancy
NACO	National AIDS Control Organisation
NACP	National AIDS Control Programme
NAMS	National Academy of Medical Sciences
NCD	Non Communicable Diseases
NCERT	National Council of Education , Research and Training
NDC	National Development Council
NFWP	National Family Welfare Programme
NGCP	National Goitre Control Programme
NGO	Non Governmental Organisation
NHED	Nutrition and Health Education
NHP	National Health Policy
NHPs	National Health Programmes
NIDDCP	National Iodine Deficiency Disorders Control Programme
NIMHANS	National Institute of Mental Health and Neuro Sciences
NLEB	National Leprosy Eradication Board
NLEC	National Leprosy Eradication Commission
NLEP	National Leprosy Eradication Programme
NMEP	National Malaria Eradication Programme
NMHP	National Mental Health Programme
NPCB	National Programme for Control of Blindness
NRR-1	Net Reproduction Rate of unity
NTBCP	National Tuberculosis Control Programme
NTI	National Tuberculosis Institute
NTPC	National Thermal Power Corporation
ODA	Overseas Development Administration, United Kingdom
OP	Operating Partner
ORT	Oral Rehydration Therapy
Pf	Plasmodium Falciparum
PGIMER	Post Graduate Institute of Medical Education and Research
PHC	Primary Health Centre
PHIs	Peripheral Health Institutions
PHN	Population, Health and Nutrition
PLAN	Foster Parents Plan
PRCs	Population Research Centres
PRIA	Society for Participatory Research in Asia
R&D	Research & Development
SC	Sub Centre
SC/ST	Scheduled Castes/ Scheduled Tribes

SET	Survey, Education and Treatment
SFR	Slide Falciparum Rate
SHE	School Health Education
SHEBs	State Health Education Bureaux
SIDA	Swedish International Development Agency
SIFPSA	State Innovations in Family Planning Services Project Agency
SLA	Savings and Loan Associations
SPCBs	State Pollution Control Boards
SPM	Suspended Particulate Matter
SPR	Slide Positivity Rate
SPR	Slide Positivity Rate
SRS	Sample Registration System
STD	Sexually Transmitted Diseases
TB	Tuberculosis
TBAs	Traditional Birth Attendants
UGC	Union Grants Commission
UHFWCs	Urban Health and Family Welfare Centres
UIP	Universal Immunisation Programme
ULB	Urban Local Bodies
UMS	Urban Malaria Scheme
UNAIDS	United Nations Programme on AIDS
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
UTs	Union Territories
VANI	Voluntary Action Network, India
VHAI	Voluntary Health Association of India
VHAs	Voluntary Health Associations
VHG	Village Health Guide
VMS	Vocabulary of Medical Sciences
VOs	Voluntary Organisations
VPCI	Vallabhbhai Patel Chest Institute
WHO	World Health Organisation
WHO	World Health Organisation
ZSI	Zoological Survey of India

1. INTRODUCTION

1.1 BACKGROUND

One of the principles on which the Japanese Government extends Official Development Assistance (ODA) to developing countries is that aid will help bring about economic and social development. Japan's ODA puts priority on global issues such as controlling population, fulfilling basic human needs, and developing human resources.

The Japan International Cooperation Agency (JICA) provides grant aid in accordance with bilateral agreements. The major targets of Japan's grant aid are in the area of basic human needs, which includes medical care, public health and the development of human resources. To ensure development effect of aid projects, JICA implements project formation surveys for the purpose of finding out whether the aid request from a developing country is appropriate for its development needs. In project confirmation surveys, each specific project is screened and confirmed before implementation.

1.2 NEED FOR THE STUDY

In India, the JICA India Office co-ordinates the aid programme, based on requests made by various central and state government departments, through the Government of India, Ministry of Finance, Department of Economic Affairs. JICA is considering several projects in the health and population sector in India, in accordance with the overall objectives of Japan's ODA and the specific objectives of grant aid as outlined above.

In this background, the JICA India Office commissioned Tata Consultancy Services (TCS) to undertake a study as part of the project development process. The purpose of this study was to assist JICA in the project formulation study for the health and medical sector in India. By relating the proposed projects to JICA's specific requirements as a funding agency, this study aims to provide JICA with the information needed to assess and prioritise these projects in the overall country and sector context.

1.3 SCOPE AND TERMS OF REFERENCE

1.3.1 Scope of the Study

The scope of the study was to provide an understanding of the current health situation in India and its constraints. To this extent, the scope covered the whole country. A more detailed study has been made of the five states in which the proposed projects are located, and the specific institutions which are seeking grant aid for upgrading their health and medical facilities.

1.3.2 Terms of Reference

The specific terms of reference (TOR) specified by JICA are given below. These were supplemented by a detailed questionnaire giving the data requirements.

1. Objectives

   The Project Formulation Study on Health and Medical Sector in India

2 The Project Sites

a. Grant Medical College & Sir J. J. Hospitals and Albless & Cama Hospital, Mumbai, Maharashtra.

b. King George Medical College, Lucknow, Uttar Pradesh.

c. Rohtak Medical College, Haryana.

d. Capital Hospital, Bhubaneswar, Orissa.

e. National Institute of Traumatology, New Delhi.

3. General Purpose

a. to understand current health situation and its constraints, and to find future cooperation trend under Japanese grant aid

b. Collection of basic health data, both central and state level, such as

i. health indicators

ii. administrative structure

iii. basic health policy and programmes

iv. resource allocation (manpower, medical facilities equipment, and financial)

v. referral system

vi. multilateral and bilateral international cooperation activity, and

vii. non-government organisation (NGO) activity.

4. Specific Purpose

a. to collect project background information for justification:

b. implementing organisation information;

c. hospital fact sheet (annual report of current activities and future plan), patient catchment area, disease pattern, hospital manpower, budget (cost sharing), maintenance system;

d. facilities information (hospital map), existing medical equipment utilisation data and requested items (with layout drawing of major equipment)

1.4 APPROACH AND METHODOLOGY

The TCS consultants adopted a participative approach, working in close coordination with the JICA team, comprising JICA officials and a team of Japanese consultants. This approach also involved extensive interaction with key personnel in the central and state governments, and in the organisations sponsoring the project proposals. A list of persons met by the TCS consultants is given at Appendix A of this report.

The TCS team undertook extensive desk research, involving the study of published information, including statistics and literature relevant to the health and medical sector in India. This helped in understanding the present status and the emerging trends in and concerns. This was supplemented by discussions with key personnel involved in developing the Ninth Plan approach to the health sector.

Field visits were made to the organisations requesting grant assistance, to assess the facilites available and evaluate the organisations in terms of their needs and their capabilities. These field visits were undertaken jointly with the team of Japanese consultants, to avoid any overlaps and duplication of work.

Interviews and discussions were held with the personnel of these organisations, using structured and semi-structured questionnaires. Personnel in other relevant agencies – government, donor agencies, and NGOs – were also interviewed using semi-structured questionnaires. The interviews helped in understanding their perceptions and needs, as well as in collecting the data and information required for this study.

The analysis of the data and information so collected was undertaken to draw conclusions and recommendations for the study, in the context of JICA's overall objectives.

1.5 STRUCTURE OF THIS REPORT

This draft report is being submitted on completion of eight weeks of the study. Two sections of the report, on Maharashtra and Uttar Pradesh, were submitted to the JICA team on completion of four weeks of the study. This report will be finalised based on any comments received from JICA within the next three weeks, and any supplementary information and analysis that the TCS team may add, to ensure that the scope of the study has been completely addressed.

This report comprises seven chapters, including this introductory one.

Chapter 2 describes the socioeconomic context and health sector background of India. It provides details on the government plans and priorities and the government institutional framework in the sector.

Chapter 3 details the institutional set-up in the health and medical sector and the role of non governmental agencies in the sector.

Chapter 4 outlines the national health and family welfare programmes being implemented in India.

Chapter 5 presents an overview of international cooperation in the health sector.

Chapter 6 gives state-wise details with respect to organisation structure, state health plan, health budget and medical resources for the states of Delhi, Haryana, Maharashtra, Orissa and Uttar Pradesh.

Chapter 7 concludes with a summary of the major issues needing attention in the health and medical sector in the country, and the recommendations based on this study.

Supplementary material is given in appendices to the report. The appendices to the report are as outlined below.

2. COUNTRY AND SECTOR BACKGROUND

2.1 SOCIOECONOMIC CONTEXT

Despite significant improvements throughout this century, India continues to remain a country with a daunting burden of excess mortality and ill health. Health for a country is an investment that contributes to its economic strength. The National Health Policy (1983) reiterated India's commitment to attain "Health For All by 2000 AD" and, although much has been achieved, India still needs to go a long way.

The population of India was recorded at 846.3 million as on March 1st, 1991 (1991 Census), as against 683.3 million in 1981. It was found to be growing at an annual rate of over 2 percent. However, the addition to the population in absolute terms was 163 million, which is almost equal to the added population of the three decades 1931-41, 1941-51, 1951-61. The sex ratio (number of females for every 1,000 males) declined to 927 in 1991, as against 934 in 1981. The literacy rate among females has gone up from 29.75 percent in 1981 to 39.29 percent in 1991. Every year about 17 million people are added to the population, which is almost equivalent to the total population of Australia, and creates demands for additional resources for clothing, housing, food, education, health, schooling etc. With 2.4 percent of the world's land, India today has to support about 16 percent of the world's population. *It is this rapid increase in the population of India that has come in the way of the country's becoming an economic giant in the region, given its wealth of natural resources and skilled manpower.*

Data from the Sample Registration System (SRS) for 1994 has indicated that the estimated annual live birth rate for the country was 28.7 in 1994. To be noted, however, is the wide variations among various states. For example, while in the states of Kerala and Tamil Nadu the live birth rate values are 17.4 and 19.2, respectively, states like Bihar, Haryana and Uttar Pradesh have live birth rates that are in excess of the national average. It has also been found out that the live birth rates are significantly higher in the rural areas (30.5) as compared to the urban areas (23.1).

Progress has been achieved in the areas of diseases and small pox and plague have been eradicated. Morbidity and mortality due to malaria, cholera and other diseases has also declined. The death rate in the country has shown a decline and was reported to be 9.3 in 1994 as against 15 in 1981. While the Infant Mortality Rate (IMR) has also shown a decline, from 110 in 1981 to 74 in 1991, there still remain a large number of states where the IMR is in excess of the national average. The Eighth Plan document of the Planning Commission has estimated that the growth rate of the population will reach 1.78 percent by the end of the Eighth Plan, i.e., 1997 and should come down to 1.65 percent during the next five years.

The economic consequences of such a phenomenal increase in population are very serious, and obvious. Growth in population directly results in an increased demand for investible surplus for absorbing the increased labour supply. On the other hand, this increase in population reduces the supply of investible surplus due to increased demand for food, housing, education etc. The government of India embarked on an economic liberalisation era in order to revive the then stagnating economy in the financial year 1991-92. The economic reforms that were initiated have led to the revival of strong economic growth, expansion of productive employment, reduction of poverty, an increase in exports and a marked decline in inflation. Growth of real GDP at factor cost, which had fallen to 0.8 percent in the year 1991-92, reached 5.1 percent in the year 1992-93 and has stabilised at about 6 percent thereafter. The growth recovery of India has been accompanied by much lower current account deficits in the balance of payments, a drop

in inflation below the 8 percent level, a rise in the domestic saving rate to a record level of 24.4 percent of GDP, and a reduction in the gross primary fiscal deficit to its lowest level in decades.

Right from the beginning, the economic reforms have been explicitly guided by the twin objectives of accelerated growth and social equity. These objectives have been pursued by the promotion of broad-based, employment-generating growth, with enhanced plan outlays for poverty alleviation and social sectors such as health and education. The government has accorded the highest priority to promoting sustainable and employment intensive growth. The proportion of people below the poverty line declined from 26 percent in 1987-88 to 19 percent in 1993-94.

2.1.1 Women in Development

Women play a far greater role than men in the delivery of health care. This is true in most countries and is relatively well-established phenomenon, predating the emergence of modern health care systems. As mothers, grandmothers, wives and daughters and neighbours, they are the principal providers of informal health care in families and communities. Women act as traditional birth attendants for relatives and neighbours, often without financial reward, and still carry out majority of the deliveries. Outside the family, women act as volunteers in hospitals, self-help clinics, and other community organisations. Also, in the elementary schools, majority of the teachers are women whose tasks include the teaching of health-sustaining attitudes and behaviour. Equally important is the role of women in the formal health system, where they often constitute the majority of the health care providers as doctors and nurses.

Women as Providers of Non-formal Health Care

The major responsibilities of women as providers of non-formal health care include:

- taking decisions concerning the health care of family members,
- rearing children on healthy lines.
- producing, selecting, preparing, and distributing the family's food,
- providing health services at home for convalescent, chronically ill, and the disabled members of the family,
- identifying illnesses,
- escorting the sick for necessary care, and
- providing nursing care, physical therapy and first aid.

Unfortunately, there is a dearth of information about the preparation of women to provide such care effectively, how burdensome they find these responsibilities and how much and what type of help they receive from their spouses.

Within the Family

Women are the main behavioural influence on the children of the household. Women have the advantage of being in the position to alert the young, during early formative years, to the adverse effects of specific forms of behaviour. By serving as positive role-models and encouraging family members to assume greater responsibilities for their own health, women can help to effect behavioural changes that may lead to a reduction in the risk of accidents, disease, mental illness, and early death.

In the Community

Women's unique position with respect to health care stems from the special opportunities they enjoy for communicating and interacting with other women who have similar problems as regards their own health and that of their families. These opporunities of providing service may occur at places where and times when, women are engaged in other tasks pertaining to the welfare of the household. It is the performance of these tasks that allows women to reach out to other women in the community and form a network, thus helping to enhance communal action

Primary Health Care Outside Formal Health System

Primary health care, outside the formal health system, is provided mainly by women. In general, women are involved in the following basic primary health care activities.

Health Education/Family Life Education

Education for the promotion of health and prevention of disease is an essential components of primary health care. Women act as health educators and impart learning and motivation to people to remain healthy.

Nutrition

Nutrition is one of the most important factors influencing the quality of life. Most of the nutrition-related activities take place within the family. Women are primary processors, storers, and preparers of food and are responsible for proper nutrition. They help to increase and improve food supplies by processing and preserving food to the best advantage and distributing available provisions equitably within the family.

Supply of Safe Water and Basic Sanitation

Preventable diseases associated with contaminated water supplies and a lack of basic sanitation constitute a major health problem in India. In areas where piped water supply is not available, women are the haulers, storers, and disitributors of water and the managers of basic sanitation at the family level and often also at the community level.

Immunization

Women are the main users and promoters of immunization against the principal communicable diseases, for themselves and their children, playing an indispensible role in this connection, even when the immunization is performed by men.

Maternal, Child care and Family Planning

Women are the main providers of maternal and child care, including family planning, since most of the relevant actions and decisions emanate from or affect them directly.

2.1.2 Empowerment of Women as a Social Group

The situation of women in most parts of the country is characterised by the following perceptions and roles:

- Social perception of a woman's role as an object of procreation and domestic/agriculture labour.

- In the motherhood and domestic roles, a woman is subject to want, deprivation and risk and is poorly prepared both in physical and personal capacities for motherhood, in view of her frail health and, at most times, tender age.

- The stereotype images are reinforced from the time of her birth, denying a woman access to opportunity for a healthy growth , personal development, education and gainful skills. Ther is, therefore little or no space for action action to bring about self-change in a woman's life. The community, including older women act as resistance groups.

Women need to be empowered to dynamise them for collective action. A two-pronged approach can be taken up:

- Mobilisation of women as a social group and creation of space for collective action;

- Concentration regarding issue of status of women and alternative role concepts

Alternative Role Model Concepts

Though women in the rural areas are by and large aware of their discriminator status, yet they do not perceive it as a logical outcome of the social stereo-type they have been moulded into. The stereotype mainfests itself in denial of education, skills, personal development and opportunities for professional development and mobility. Within the family, the deprivation affects their access to available health cover and safe motherhood. Women in India as a group are substantial contributors to the economic productive process. However, instead of this positive contribution being recognised, their adverse time budget offers no scope for rest, recreation, leisure and pursuit of any gainful vocation.

Women should be helped to empower themselves through collective action and help develop an alternative role model for a woman around the following concepts:

- Woman as an educated, thinking individual with self-esteem and dignity and hence responsible for motherhood according to her own choice;

- Healthy and safe motherhood through delayed marriage, fewer, better spaced and limited child births.

- Better sanitation packages and cleaner environment for good family health and adequate access of women to rest, recreation and leisure, by better management of time;

- Acquisition of skills through training for gainful employment or self-employment activities;

- The need to quantify the labour of women in the community in economic terms and to operate a mechanism of reward and to give her an equitable control in the management of family resources; and

The need to facilitate the participation/contribution of women in the social process positively both as an individual and as a group.

2.2 GOVERNMENT PLANS AND PRIORITIES

Public policy for 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. India's long term strategy for health sector development is enunciated in the National Health Policy of 1983 while specific strategies and objectives for various programmes are defined in the Five Year Plans.

2.2.1 National Health Policy (1983)

In 1983, the Government of India issued a formal National Health Policy (NHP). The policy reviewed the history of health system development in India and the national health situation. Restructuring of the basic health infrastructure was proposed, focusing on the development of health service provision at the community level, emphasising lower-level primary care workers and local participation. 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. The policy also comprises specific quantified targets for health improvements through the year 2000. These are shown in Table 2.1.

TABLE 2.1: NHP GOALS FOR HEALTH AND FAMILY WELFARE PROGRAMMES FOR THE YEAR 2000

Indicator	Goals for the year 2000
Infant Mortality Rate	below 60
Perinatal Mortality	30-35
Crude Death Rate	9
Pre-school child (1-5 years) mortality	10
Maternal Mortality Rate	below 2
Life expectancy at birth (years): Male	64
: Female	64
Babies with birth weight below 2500 gms. (%)	10
Crude birth rate	21
Effective couple protection (%)	60
Net Reproduction Rate	1.0
Growth Rate (annual)	1.20
Family Size	2.3
Pregnant mothers receiving ante-natal care (%)	100
Deliveries by trained birth attendants	100
Immunisation status (% coverage)	
TT (for pregnant women)	100
TT (for school children)	
10 years	100
16 years	100
DPT (children below 3 years)	85
Polio (infants)	85
BCG (infants)	85
DT (new school entrants 5-6 years)	85
Typhoid (new school entrants 5-6 years)	85
Leprosy - percentage of arrested cases out of th detected	80
TB - percentage of arrested cases out of th detected	90
Blindness - Incidence of (%)	0.3

The NHP also reiterated India's commitment to attain "Health for All (HFA) by 2000 AD". Primary health care has been accepted as the main instrument for achieving this goal. Accordingly, a vast network of institutions at primary, secondary and tertiary levels has been established. Control of communicable diseases through national programmes and development of trained manpower have received special attention over the years.

2.2.2 Programme Thrusts in the Eighth Five Year Plan

Health and population control have been listed as two of the six priority objectives under the Eighth Plan. Health facilities are to reach the entire population by the end of the Eighth Plan. According to the Plan priorities, the "Health for All" paradigm should cover not only high risk vulnerable groups (mothers and children) but must also focus on the underprivileged segments within these groups. Community-based systems, reflected in the planning of health infrastructure, with a population of 30,000 as the basic unit for primary health care, are emphasised.

Minimum Needs Programme (MNP)

Under the MNP, rural health programmes, urban health services, secondary and tertiary care services are to be strengthened and made more effective.

Rural Health Programme

The approach and strategy for rural health during the Eighth Plan cover the following:

a. Consolidation and operationalisation of the network of sub-centres, Primary Health Centres (PHCs) and Community Health Centres (CHCs) to optimise their performance by strengthening physical facilities, providing essential equipment, filling up vacant posts within a defined time frame, and ensuring supply of essential drugs, dressings and other material.

b. Development of an information management system for monitoring the progress of implementation of MNP at the district, state and national levels.

c. Giving flexibility to the states in establishing sub-centres, PHCs and CHCs as per the local needs. The needs of tribal population and communities living in difficult and inaccessible areas to be given first priority in opening new centres.

d. Suitably modifying, equipping and staffing of rural hospitals and dispensaries for converting them into sub-centres, PHCs and CHCs, as the case may be, thereby integrating them into the primary health care system.

e. Review of the present policy and norms relating to establishment of sub-centres, PHCs and CHCs, and development of new policy options to make primary health care accessible, acceptable and affordable for all. Reorganisation of the Indian Systems of Medicine and Homeopathy (ISM&H) dispensaries/hospitals in rural areas to create health centres is one such option.

f. Development of mechanisms for making the rural health services responsive to the needs of the rural masses and accountable to the community. Panchayati Raj (local self government) system would become an effective instrument for eliciting community participation in the health programme and for providing supervision and support to primary health care infrastructure.

g. Development of linkages with the sub-divisional and district hospitals to provide referral back-up.

Urban Health Services

The objectives for improving urban health services under the Eighth Plan are listed below.

a. Development of urban health services as per the recommendations of Krishnan Committee.

b. Forging organic linkages with the urban development schemes including Urban Basic Services, for a comprehensive development of health and welfare services.

c. Encouragement to voluntary organisations and local bodies for developing partnership and for undertaking full responsibility for carrying out health and welfare programmes.

d. Undertaking health system research for developing a model of urban primary health care services.

Secondary and Tertiary Care Services

The key objectives for strengthening secondary care services and optimising tertiary care services under the Eighth Five Year Plan include the following:

a. Development of innovative approaches/practices for raising resources to meet rising expectations and for maintaining the quality of care. To develop a system of medical audit.

b. Ensuring maximum cost-effective utilisation of existing services.

c. Encouragement of private initiatives by supporting private hospitals/clinics subject to maintenance of minimum standards and suitable return from tax incentives. To develop norms for minimal facilities and accreditation of private hospitals/clinics.

d. Medical college hospitals to be used exclusively as tertiary care centres and for health manpower development. To improve facilities and standards of care available at secondary level and to develop a strong referral system.

Health Manpower Development and Training

Effective delivery of health care services depends largely on the nature of education, training and appropriate orientation towards community health of all categories of medical and health personnel. The approach and strategy for health manpower development during the Eighth Plan have been defined in this context and cover the following:

a. Formulation of a National Policy on Education in Health Sciences which would form the basis of new initiatives in manpower development.

b. Review of the existing situation regarding manpower supply, demand and projection and facilities for training different categories.

c. Taking appropriate steps for bridging critical gaps in the manpower requirements for primary health care and the higher levels and for training and research needs. To start vocational courses at the plus two level to bridge the gap in the supply of paramedical personnel.

d. Checking distortions created due to over-emphasis on training of doctors at the cost of other categories of personnel and undue emphasis on specialisation/super-specialisation.

e. Giving a high priority to continuing education for all categories of staff by suitably strengthening district and regional level training institutions.

f. Using resources for strengthening hospitals, laboratories and libraries of existing medical colleges so that the standards of training are maintained. No new medical college or an increase in the admission capacity of the existing colleges to be supported during the Plan.

g. Providing necessary support for the establishment of universities of medical and health sciences at the regional level, as and when a policy decision in this regard is taken.

h. Strengthening of statutory councils and creation of new councils for para-professionals to lay down and enforce the standards of training and education.

i. Augmentation of training facilities for epidemiology and health management in medical colleges and creation of these facilities in specialised institutions where training of teachers can be undertaken.

j. Review and re-orientation of training of doctors of ISM&H to make it congruent with the needs of national health programmes and primary health care.

k. Re-orientation of medical education with emphasis on faculty development through appropriate workshops for the teachers.

Programmes for Control of Communicable Diseases

National level programmes for the eradication and control of communicable diseases have been initiated in the country since the early years of planning. During the Eighth Plan, the following strategies were to be followed for control of communicable diseases:

a. National level review of the ongoing control/eradication of programme to assess the current strategies and their impact on the disease status.

b. Ensuring sufficient supplies and logistic support including mobility for carrying out the programmes.

c. Establishment of epidemiological-cum-surveillance centres at district/regional levels. improvement of health management information system for continuous monitoring of the disease situation, and taking appropriate and prompt action.

d. Intersectoral co-ordination will be strengthened with departments of public health engineering, local bodies, and related Ministries for control of vector-borne and other diseases.

e. The Information, Education and Communication (IEC) activities within each programme would be given special attention for enlisting community participation for carrying out the disease control programmes.

f. Strategy of training of staff at horizontal level, both within the primary health care and higher level is essential.

g. Creation of specialised institutions/departments to carry out both pre-service and in-service training in epidemiology for different categories of staff and strengthening of the existing facilities.

Programme-wise strategies have also been outlined under the plan. These cover programmes for vector borne diseases like malaria, kala-azar and Japanese encephalitis, programmes for leprosy eradication, tuberculosis control, blindness control, guinea worm eradication. AIDS control and control of diarrhoeal disease.

Programmes for Control of Non-Communicable Diseases

The plan recognises that the strategies for the control of non-communicable diseases have to be based on sound consideration of epidemiology and demography. They must be integrated with the existing health infrastructure to make them cost effective. The Plan emphasises development of appropriate technology and its transfer, health education, development of appropriate learning resource material and a well-structured IEC system.

Specific strategies for non-communicable diseases like cancer, iodine deficiency disorder, diabetes and mental health problems, and for treatment of accident victims have also been detailed in the Plan.

Medical Research

The Indian Council of Medical Research (ICMR) is the premier institution for carrying out bio-medical and operational research in India. Strategies for research and development activities at ICMR and other institutions include establishment of an integrated bio-medical research complex, rationalisation of grants to scientists, strengthening of extramural centres for research, establishment of a network of research units in medical colleges, development of a Centre for Epidemiological Intelligence and augmentation of research activities in specific priority areas.

Indian Systems of Medicine and Homeopathy

The strategy for utilisation of ISM&H for health care delivery during the Eighth Plan includes the following:

a. Provision of adequate facilities for training in ISM&H colleges. Strengthening of post-graduate training programmes for the purpose of manpower development for teaching and research.

b. Suitable orientation of graduate curriculum of ISM&H systems for integrating these practitioners in the mainstream of health care delivery system.

c. Enforcement of provisions of Drugs and Cosmetics Act to maintain the quality of products of ISM&H produced in the country.

d. Promotion of research and development for the production and standardisation of drugs of ISM&H.

e. Support of cultivation, conservation and regeneration of medicinal plants.

f. Establishment of separate departments, directorates and drug control organisations at the Central and State government level.

g. Support to Central Councils for Research in ISM&H.

Family Welfare Programmes

The Plan acknowledges that population growth continues to be a major problem facing the country, and hence population control assumes an overriding importance in the Eighth Plan priorities. It is also felt that inspite of massive efforts in the form of budgetary support and infrastructure development, the performance of family welfare programme has not been commensurate with the inputs. Targets set for various demographic goals under the Seventh Five Year Plan were not met, and these have been revised under the current Plan.

To give a major thrust to population control, the Plan has stressed the need for enunciating and adopting a National Population Policy. Inter-sectoral interactions, political commitment and a popular mass movement are important parts of the approach to strategic interventions during the plan period. A committee of the National Development Council (NDC) on Population has been constituted in February 1992 to consider various issues and to prepare a concrete plan of action.

Besides the broad guidelines mentioned above, the following strategies are to be adopted for achieving goals of family welfare during the Eighth Plan.

a. Convergence of services provided by various social services sector like welfare, human resource development and nutrition, and implementation of integrated programmes, based on a holistic approach, for raising female literacy, female employment, status of women, nutrition and reduction of infant and maternal mortality.

b. Decentralised planning and implementation of population control programmes and framing of area-specific strategies.

c. Panchayati Raj institutions like Gram Panchayat and Zila Parishads to play a significant role in planning, implementing and administering family welfare programmes.

d. The population control and family planning programmes to become one of "people's operation with government co-operation".

e. Population education and family life education to be made a part of general education.

f. Design, implementation and monitoring of the programme against the current methods of couple protection.

g. Fully operationalise and improve the health services infrastructure.

h. Equipping CHCs, PHCs and sub-centres to deliver general health and MCH services in an integrated manner with a strong referral support and linkage at the district level.

i. Pursuit of child survival and safe motherhood initiatives, including UIP, diarrhoea control programme and respiratory infections control programme.

j. Emphasis on health manpower planning along with a review of education and training programmes of all categories of health care providers.

k. Restructuring of the entire package of incentives and awards, to make it more purposeful.

l. Involvement of practitioners of all systems of medicine including those of ISM&H in family planning and welfare programmes.

m. Channelisation of increased amount of funds through voluntary organisations.

n. Involvement of the organised corporate sector in the implementation of family welfare programmes.

o. Involvement of the community in the Family Planning Programme and to prepare the community to accept the responsibility, ownership and control of the programme in the long run.

p. Strengthening of IEC activities in the health and family welfare sector.

q. Development and strengthening of health management information systems.

Outlays

The total outlay for the Central Health sector is Rs. 1800 milions/billions under the Eighth Plan. The outlay for the Family Welfare programmes is Rs. 6,500 crores. Details related to each of these are shown in Table 2.2 and Table 2.3 respectively.

TABLE 2.2: EIGHTH PLAN OUTLAY FOR THE HEALTH SECTOR

(Rs. Million)

Programme	States/UTs	Centrally Sponsored Programmes	Central Schemes	Total
MNP Rural Health	22,503.80	-	10.00	2,2513.80
Control of Communicable Diseases	35,255.40	10,310.00	147.50	5,3245.40
Hospitals and Dispensaries		-	940.00	
Control of non-communicable diseases		-	850.00	
Medical Education and Training		-	2,670.00	
ICMR		-	1,245.00	
ISM&H		50.00	830.00	
ESI		-	-	
Other Programmes		200.00	747.50	
Total	57,759.20	10,560.00	7,440.00	7,5759.20

TABLE 2.3: EIGHTH PLAN OUTLAY FOR THE FAMILY WELFARE SECTOR

(Rs. Million)

Programme	Outlays
Services and Supplies	30,860.00
Training	590.00
Information, Education and Communication	1,270.00
Research and Evaluation	890.00
Maternity and Child Health	19,820.00
Organisation	710.00
Village Health Guide Scheme	1,400.00
Area Projects	4,000.00
Other Schemes	460.00
Provision of Settlement of arrears payable to States	5,000.00
Total	65,000.00

2.2.3 Ninth Plan Approach

1. Transfer of administrative responsibility of health care delivery to Panchayati Raj System

This has been proposed to optimise the current existing rural health infrastructure. It is felt that health infrastructure should be made accountable to the village Panchayats, Panchayat Samities and Zilla Parishads. Powers and responsibility in the Health and Family Welfare sector should be transferred to Panchayati Raj & Nagar Palikas along with financial resources as envisaged in the 73rd & 74th Constitutional Amendments Act 1992. It is also proposed that the states transfer their powers of appointment of doctors to the Panchayati Raj institutions at the district level.

2. Significant Enhancement of Plan Outlay for the Health Sector

At present the outlay for the health sector is approximately between 1.5 to 2.0 percent of the GDP. It is felt that this should be increased to at least 5 percent of GDP. Further, it has been seen that 80 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.

3. Securing Availability of Medical & Paramedical Personnel in Rural Areas (particularly in remote areas)

The current status of the availability of medical and paramedical personnel is such that they are in surplus in the urban areas while the rural and remote parts of the country has a severe shortage. It is felt that suitable modifications be made in the Medical Council of India norms that regulates the registration of doctors in the country. It is proposed that primary registration be given to MBBS doctors only after they have served 2-3 years in rural areas as notified by the respective state governments. Further, 2 years of rural service should be made mandatory for medical graduates before they are eligible to seek admission for post graduation.

It has been seen that there are a large number of vacancies at the primary health care system which is further accentuated in the rural areas of the country. It is essential that all vacancies at the PHCs, SCs and CHCs be filled up to provide quality health care services. To attract bright medical and paramedical personnel to rural health services, it is essential that service conditions and infrastructure at the rural level be improved. It is possible to consider providing them with appropriate incentives to work in the rural areas also.

4. Institution of Indian Health Services

It is proposed that an Institution of Indian Health Services be instituted so that health care management in the country is done by bright professionals who are assured of an attractive career development. Modalities for this will have to be worked out with respect to the experience of the Indian Administrative Services.

5. Convergence of all Health Programmes at the Primary Health Centre Level with Appropriate Horizontal Integration

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.

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

6. Establishment of Appropriate Referral Services

It is expected that with adequate supply of drugs, equipment, reagents at the primary level, it will be possible to enforce a referral system strictly. To be able to establish a referral system, laboratory facilities at the primary level will have to be strengthened. Specialists will have to be positioned at CHCs and the first referral units for managing obstetric emergencies. At least 4-6 sub district level health institutions are required to be established as first referral units at each district.

7. Establishment of Appropriate and Uniform Health Management Information System

At present there is no health management information system in India. Statistics on various health related parameters are collected through cumbersome forms that burdens personnel not meant to be doing this. The entire process is manual thereby leading to inordinate delays in whatever meagre information that exists. It is felt that there is a dire need for a completely computerised Health Management Information System to be developed.

8. Simplified Release of Funds

9. Flexibility in Financial Operational Guidelines to Suit Needs of Any Given Geographical Location

10. Involvement of Practitioners of Indian System of Medicine & Homeopathy in Health and Family Welfare Programmes

11. Construction of Delivery Rooms in Sub Centres

In conformance to the proposed plan of strictly enforcing the referral system, there arises the need to strengthen the facilities available at the primary care level. In this context, it is proposed that construction of delivery rooms be initiated at the sub centres. Further, the importance of cleanliness and safe deliveries by trained *Dais* also needs to be ensured.

12. Strengthen the Child Survival and Safe Motherhood Programme

The following objectives should be laid down by the programme and appropriate actions need to be taken towards achieving them.

- Universal coverage of all pregnant women with iron prophylaxis to prevent maternal deaths due to acute anaemia to receive priority
- Essential new born care practices to be universalised to decrease peri natal and post natal mortality
- High-profile target-specific health education and awareness programme to be initiated

13. Establishment of baby friendly hospitals.

14. Village Health Guide Scheme

15. Training of Medical and Paramedical Personnel

It has been experienced that state governments do not provide appropriate resources and it is therefore suggested that the Union Ministry of Health and Family Welfare takes a strong initiative to ensure this is done. This may also involve making adequate funds available to the states that do not have the funds.

16. Establishment of District Society

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, the socities 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.

17. Review of the National Health Policy

18. Special Emphasis on Vulnerable Regions/States

19. Strengthening of Health Services System with Assistance from International Development Agencies

There are World Bank projects for three separate states in the country being implemented at present. The objectives of these projects have been to improve efficiency in the allocation and use of health resources. This is accomplished through policy and institutional development to improve the performance of health care delivery system by 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.

It is proposed that projects of this nature be implemented in other states of the country also.

20. Involvement of Traditional Health Practitioners

21. Strengthening of Information Education and Communication Efforts

A massive health education programme needs to be unleashed with the support of the Ministry of Education and NGOs.

22. Decentralisation of the Planning Process

23. Universal Access to Safe Drinking Water

The modalities for this need to be worked out with the Ministry of Urban Affairs and Employment and the Ministry of Rural Areas and Employment in Rural Areas.

24. Health Care for the Totally Vulnerable Population

25. Strengthening of Lead Components of Primary Health Care

- Consolidation of the existing PHCs and SCs
- Delivery rooms in SCs
- One additional auxiliary midwife Worker at each SC
- Panchayat administration to be responsible for environmental health and sanitation activities
- School education system to be responsible for hygiene education.

26. Institution of Urban PHC Infrastructure for Urban Slums

27. Collaboration with Related Departments in Maintenance of Health Environment

28. Involvement of NGOs/VOs as Partners

29. Registration of Nursing Homes

Existing nursing homes in the country have been found to be functioning in a poor manner and do not even fulfil mandatory requirements. It is felt that strict regulations be formulated for their initial registration and further renewal.

30. Continuing Medical and Public Health Education (CMPHE) to be Introduced

It is proposed that this be made compulsory to renew certification of medical and public health practitioners

31. Incentives to Private Doctors Towards Providing Health Care in the Rural Areas

32. Strengthening of the Institutional Setup for Non Communicable Diseases (Cancer, Diabetes, Cardiovascular diseases)

- Enhance the coverage under the National Cancer Control Programme during the 9th Five Year Plan to 100 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.
- Opening of more city based tertiary care cancer hospitals by private sector under the strict supervision of the government

33. Prevention of Epidemics

34. Upgradation of Infectious Diseases Hospitals

35. Drinking Water Quality Surveillance

The proposed budget for the Ninth Plan for the Health sector is Rs. 48.41 billion. The proposed break-up of the outlay is as follows:

TABLE 2.4: PROPOSED BREAK-UP OF THE NINTH PLAN OUTLAY FOR THE HEALTH SECTOR

(Rs. Billion)

Rural Health Services	27.96
Urban Health Care	5.84
NGOs and Private Sector	8.00
Strengthening of Public Health System	5.22
NCD	1.39
Total	**48.41**

2.3 GOVERNMENT INSTITUTIONAL FRAMEWORK

India's Constitution lays the foundation for a complex sharing of responsibility between the central government and individual state governments for the state's role in health care. The division of responsibilities between the Centre and the states in terms of planning, budgeting and funding are discussed below.

2.3.1 Federal Structure and Tiers of Government

The Constitution of India sets forth in detail the political and governmental structure of the country, based on distinct central and state governments with specified spheres of activity, revenue-raising roles and areas of authority. Under India's federal system, as set forth in its Constitution, the states have important functions and responsibilities in various economic and

social sectors, in addition to their more narrow governmental roles. They also have access to substantial revenue flows, including both taxes they collect themselves and shares in certain taxes collected by the central government. Various transfers from the central government augment the states' own revenues.

The Constitution employs a three-fold classification in the division of expenditure responsibilities between the Centre and the states: some are exclusively subject to the jurisdiction of one or the other and others are concurrently within the jurisdiction of both. The central government is exclusively responsible for 84 categories, including defence, foreign affairs, atomic energy, highways, aviation, shipping, banking and insurance. The states are assigned exclusive jurisdiction over 47 items, most prominently public order, police, irrigation, agriculture, land and public health. Another 47 areas are under the concurrent jurisdiction of central and state governments, such as social and economic planning, forests, education, labour and others.

2.3.2 Division of Planning Responsibilities

According to the Constitution, overall planning and policy responsibility for assuring and improving health along with specific responsibility to act upon health concerns of broad national interest resides primarily with the central authorities. The individual states retain principal responsibility for specific actions such as public health and sanitation, hygiene and water supply, hospitals and dispensaries. Health care (covering disease control programmes, curative care and primary health care) is under the exclusive jurisdiction of the states, while family welfare (which includes family planning and mother and child health) is under the concurrent jurisdiction of the Centre and the states.

The Centre, however, has the discretion to intervene in health care through the Centrally Sponsored Schemes (CSSs). Included among the CSSs are the National Family Welfare Programme, the National Tuberculosis Control Programme, the AIDS Control Programme, the Leprosy Control Programme and the Malaria Control Programme. The Centre can initiate and fully or partially finance these schemes through the mechanism of tied grants to the states. The responsibility of implementing these schemes lies with the states, even though their formulation and design is carried out at the Centre.

Another form of direct central intervention in the health sector is in the support for infrastructure development. A major vehicle for the latter is the National Minimum Needs Programme, a mechanism that allows the Centre to influence states' expenditure on infrastructure for various programmes including rural health. The MNP primarily finances sub-centre construction and maintenance and multi-purpose worker training. Although MNP is a part of each state government's own plan, for each rupee that the state spends towards these minimum needs, it receives a matching rupee from the centre as a grant.

2.3.3 Framework for Resource Allocation

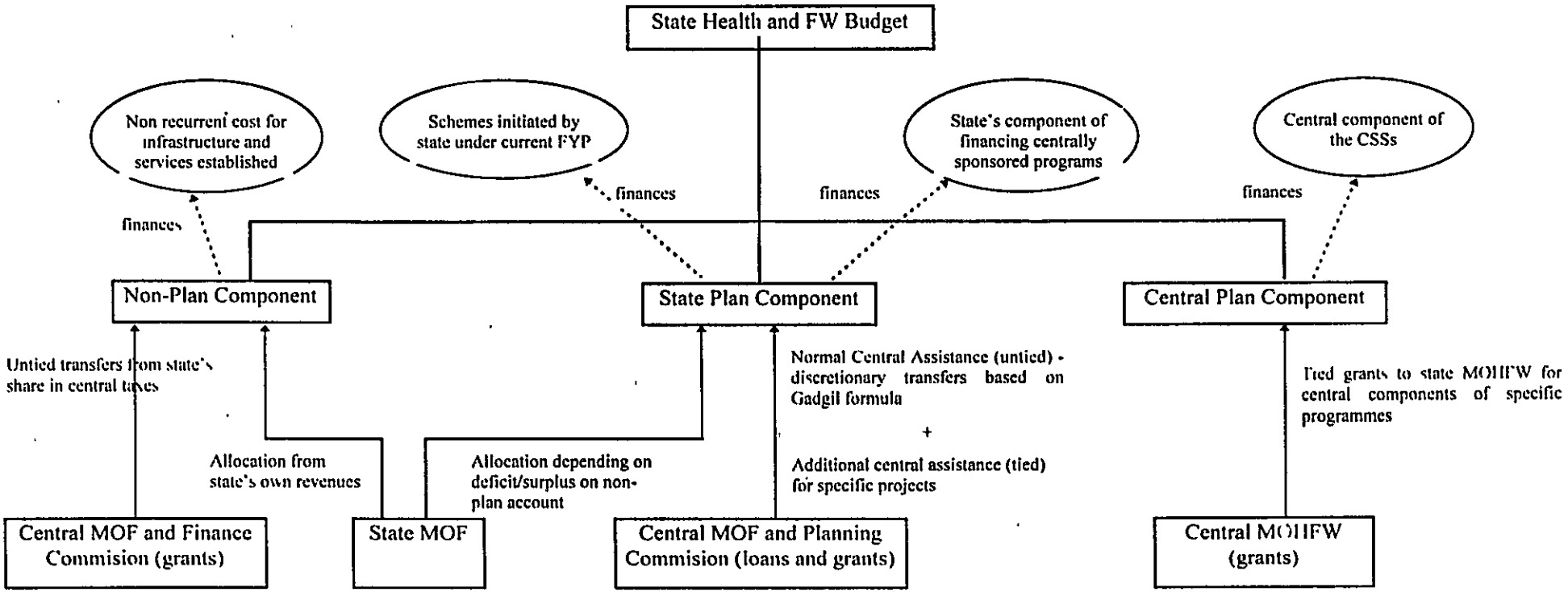
<u>Government Budgeting Procedure for Health and Family Welfare</u>

At the State level, each health/family welfare scheme shown in the budget has three components: non-plan, state plan and central plan (in case of a CSS). Plan and non-plan components are funded by both central and state governments. Central grants to the states are of two types: (i) tied to a specific sector scheme (routed to central plan component of the state budget), and (ii) untied, or general purpose (routed to the state plan or non-plan component).

Tied central transfers are determined by the Central Ministry of Health and Family Welfare in consultation with the Planning Commission. The quantum of untied central transfers and their division among the states are determined by the Finance Commission (in respect of non-plan outlays) and by the Planning Commission (in respect of Plan outlays). Donor funding can be provided both under state plan and central plan components. Figure 2.1 presents an overview of the funding sources and routes in states' health and family welfare budgets.

Figure 2.1

Overview of Components, Funding Sources and Routes in States' Health and Family Welfare Budgets



Division of Funding Responsibilities

Funding responsibilities are divided between the Centre and the states and they finance different components of the total health and family welfare expenditures at state level. The state governments finance the bulk of primary health care facilities (including 25 percent of sub-centres), curative hospital care and disease control programmes. The central government, through intersectoral grants, finances the bulk of family welfare (including 75 per cent of sub-centres), a part of the disease control programs (less than 25 percent) and a small share of primary care facilities.

The CSSs are generally referred to as being partly or fully centrally funded. The central and state funding ratios for CSSs refer only to the plan component of expenditure on these schemes. The full amount of non-plan expenditure has to be borne by the states. The Family Welfare programme is fully centrally funded. It enjoys a unique status as its entire budget has been retained in the plan account over successive plan periods.

At the local government level, there are wide inter-state variations in the powers and roles of local bodies with regard to health care. Of the total amount transferred as grants by the states to local bodies, 95 percent consist of specific grants to support social service facilities such as panchayat schools, paramedical staff in rural health centres etc. Less than 5 percent consist of general purpose grants over which the local authority has flexibility of use.

2.3.4 Public Expenditure on Health and Family Welfare

Total public expenditure on health and family welfare has increased consistently over the years, but has remained around 3 percent of the total plan investment outlay of the country. Table 2.5 presents the central government expenditure figures for health from the year 1989-90 onwards. Corresponding figures for family welfare are given in Table 2.6. State-wise expenditure on medical, public health and family welfare are presented in Table 2.7.

TABLE 2.5: CENTRAL GOVERNMENT EXPENDITURE ON MEDICAL AND PUBLIC HEALTH

(Rs. Million)

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
Revenue Expenditure							
Budget estimates (total)	2,809.20	3,466.50	3,917.00	3,844.10	5,199.60	6,428.10	7,210.90
Plan expenditure	1,025.50	1,141 80	1,403.10	1,206.30	2,079.90	2,912.50	3,160.80
Non-plan expenditure	1,783.70	2,324.70	2,513.90	2,637 80	3,119.70	3,515.60	4,050.10
Revised estimates (total)	2,967.50	3,381.30	3,749.80	5,016.60	6,068.40	6,986.70	7,319.40
Plan expenditure	1,004.90	1,085.60	1,236.40	2,050.90	2,542.90	3,121.70	2,955.20
Non-plan expenditure	1,962.60	2,295.70	2,513.40	2,965.70	3,525.50	3,865.00	4,364.20
Difference (revised-budget)	158.30	-85.20	-167.20	1,172.50	868.80	558.60	108.50
Capital Expenditure							
Budget estimates (total)	30.60	59.90	42.90	51.30	54.90	37.40	137.30
Plan expenditure	21.80	71.10	54.10	63.00	121.60	104.10	204.00
Non-plan expenditure	8.80	-11.20	-11.20	-11.70	-66.70	-66.70	-66.70
Revised estimates (total)	24.80	50.10	59.80	23.70	53.90	71.00	132.00
Plan expenditure	21.00	61.30	71.00	83.10	120.60	137.70	198.70
Non-plan expenditure	3.80	-11.20	-11.20	-59.40	-66.70	-66.70	-66.70
Difference (revised-budget)	-5.80	-9.80	16.90	-27.60	-1.00	33.60	-5.30
Loans and Advances							
Budget estimates (total)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plan expenditure	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non-plan expenditure	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Revised estimates (total)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plan expenditure	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non-plan expenditure	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Difference (revised-budget)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total expenditure (revenue+capital+loans)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Budget estimates (total)	2,839.80	3,526.40	3,959.90	3,895.40	5,254.50	6,465.50	7,348.20
Plan expenditure	1,047.30	1,212.90	1,457.20	1,269.30	2,201.50	3,016.60	3,364.80
Non-plan expenditure	1,792.50	2,313.50	2,502.70	2,626.10	3,053.00	3,448.90	3,983.40
Revised estimates (total)	2,992.30	3,431.40	3,809.60	5,040.30	6,122.30	7,057.70	7,451.40
Plan expenditure	1,025.90	1,146.90	1,307.40	2,134.00	2,663.50	3,259.40	3,153.90
Non-plan expenditure	1,966.40	2,284.50	2,502.20	2,906.30	3,458.80	3,798.30	4,297.50
Difference (revised-budget)	152.50	-95.00	-150.30	1,144.90	867.80	592.20	103.20
% change over previous year							
Budget estimates	0.00	241.70	122.90	-16.90	348.90	230.40	136.50
Revised estimates	0.00	146.70	110.20	323.00	214.60	152.70	55.70
% share of revised estimates in							
Social Services	99.79	103.50	108.10	129.10	127.20	126.40	91.50
Total central govt. expenditure	3.41	3.22	3.30	4.00	4.20	4.30	4.00
GDP at current market price	0.66	0.64	0.62	0.72	0.76	0.75	0.69

TABLE 2.6: CENTRAL GOVERNMENT EXPENDITURE ON FAMILY WELFARE

(Rs. Million)

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
Revenue Expenditure							
Budget estimates (total)	712.30	649.00	855.70	894.50	888.10	962.00	1750.80
Plan expenditure	649.50	554.90	760.70	800.30	793.00	859.40	1641.20
Non-plan expenditure	62.80	94.10	95.00	94.20	95.10	102.60	109.60
Revised estimates (total)	671.20	788.20	906.20	907.00	870.40	917.80	1597.10
Plan expenditure	608.40	697.30	814.30	813.30	769.70	811.70	1419.60
Non-plan expenditure	62.80	90.90	91.90	93.70	100.70	106.10	177.50
Difference (revised-budget)	-41.10	139.20	50.50	12.50	-17.70	-44.20	-153.70
Capital Expenditure							
Budget estimates (total)	0.80	0.80	1.50	1.00	1.00	1.00	1.00
Plan expenditure	0.80	0.80	1.50	1.00	1.00	1.00	1.00
Non-plan expenditure	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Revised estimates (total)	15.90	1.50	2.00	1.20	1.70	1.00	1.10
Plan expenditure	15.80	1.50	2.00	1.20	1.70	1.00	1.10
Non-plan expenditure	0.10	0.00	0.00	0.00	0.00	0.00	0.00
Difference (revised-budget)	15.10	0.70	0.50	0.20	0.70	0.00	0.10
Loans and Advances							
Budget estimates (total)	15.50	0.20	7.50	0.50	0.50	0.50	0.50
Plan expenditure	15.50	0.20	7.50	0.50	0.50	0.50	0.50
Non-plan expenditure	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Revised estimates (total)	15.50	21.20	7.50	0.50	0.50	0.50	0.50
Plan expenditure	15.50	21.20	7.50	0.50	0.50	0.50	0.50
Non-plan expenditure	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Difference (revised-budget)	0.00	21.00	0.00	0.00	0.00	0.00	0.00
Total expenditure (revenue+capital+loans)							
Budget estimates (total)	728.60	650.00	864.70	896.00	889.60	963.50	1752.30
Plan expenditure	665.80	555.90	769.70	801.80	794.50	860.90	1642.70
Non-plan expenditure	62.80	94.10	95.00	94.20	95.10	102.60	109.60
Revised estimates (total)	702.60	810.90	915.70	908.70	872.60	919.30	1598.70
Plan expenditure	639.70	720.00	823.80	815.00	771.60	813.20	1421.20
Non-plan expenditure	62.90	90.90	91.90	93.70	100.70	106.10	177.50
Difference (revised-budget)	-26.00	160.90	51.00	12.70	-17.00	-44.20	-153.60
% change over previous year							
Budget estimates	0.00	-107.88	330.31	36.20	-7.14	83.07	818.70
Revised estimates	0.00	154.14	129.24	-7.64	-39.73	53.52	739.10
% share of revised estimates in							
Social Services	23.40	24.40	25.90	23.20	18.10	16.40	19.60
Total central govt. expenditure	0.80	0.76	0.80	0.70	0.60	0.50	0.90
GDP at current market price	0.10	0.15	0.10	0.10	0.10	0.10	2.10

TABLE 2.7: STATE EXPENDITURE ON MEDICAL, PUBLIC HEALTH AND FAMILY WELFARE

(Rs. Million)

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
Andhra Pradesh	3,032.60	3,297.90	3,776.60	4,226.00	5,189.50	5,123.90	5,319.10
Arunachal Pradesh	176.10	179.30	195.90	231.20	253.70	294.40	325.40
Assam	1,112.80	1,282.40	1,560.00	1,497.50	1,862.10	2,080.10	2,516.50
Bihar	2,344.70	3,248.30	4,219.40	3,927.90	4,652.30	5,104.70	6,033.10
Delhi	0.00	0.00	0.00	0.00	695.60	1,781.00	2,244.30
Goa	257.10	326.00	370.60	378.60	420.20	440.50	464.30
Gujarat	2,381.90	2,524.00	2,851.80	3,163.60	3,579.20	4,038.20	4,333.50
Haryana	788.00	871.10	1,038.20	1,223.80	1,165.00	1,247.20	1,356.10
Himachal Pradesh	626.70	768.90	868.40	1,003.00	1,052.60	1,227.50	1,368.20
Jammu and Kashmir	831.20	1,001.60	1,120.80	1,383.00	1,528.90	1,847.30	1,749.20
Karnataka	2,357.30	2,495.90	3,006.50	3,673.20	4,014.90	4,994.00	6,004.10
Kerala	1,923.00	2,219.90	2,318.00	2,392.30	2,984.50	3,992.70	4,487.70
Madhya Pradesh	2,546.30	2,816.00	3,156.00	3,463.40	4,167.40	5,051.90	5,211.90
Maharashtra	4,587.90	4,976.20	5,458.50	6,356.30	7,216.80	7,975.80	7,692.40
Manipur	197.20	195.00	228.20	246.30	275.20	265.70	271.30
Meghalaya	205.50	241.20	266.80	328.80	349.40	411.70	459.70
Mizoram	0.00	149.20	167.20	190.90	223.30	249.50	209.60
Nagaland	297.90	284.60	236.40	308.80	411.80	413.00	517.70
Orissa	1,219.70	1,405.80	1,717.80	1,753.60	1,922.50	2,645.00	2,677.70
Punjab	1,613.60	1,696.80	1,974.80	2,157.70	2,337.30	2,541.40	2,635.10
Rajasthan	2,196.30	2,578.80	3,003.50	3,462.40	3,953.50	4,624.20	5,859.40
Sikkim	80.90	101.00	134.00	160.60	243.50	259.90	249.20
Tamil Nadu	3,270.50	3,895.20	4,385.80	5,030.80	5,633.50	6,245.00	6,678.50
Tripura	251.00	303.20	301.10	300.20	363.30	386.10	471.10
Uttar Pradesh	5,585.20	6,759.80	6,834.40	7,912.00	9,760.70	9,473.20	8,981.00
West Bengal	3,483.60	4,600.00	4,108.30	4,464.20	5,227.30	5,653.20	6,177.90

3. HEALTH AND MEDICAL SECTOR

3.1 INSTITUTIONAL SETUP

Constitutionally, health is the responsibility of the state governments, although in certain limited areas the Central government exercises its direct control. The Central List of legislative functions include aspects of international health, prescription and enforcement of medical standards with respect to medical education, as well as the management of central health agencies and a few institutions of research. Legislative as well as executive functions related to these are the responsibilities of the Central government. The Concurrent List includes prevention of infectious and contagious diseases, lunacy and mental deficiency, regulation of births and deaths, control of adulteration of foodstuffs and other goods. Provision of medical facilities and preventive health care to the people is the direct responsibility of the state governments or the union territory administration. In addition, local bodies and voluntary agencies provide medical facilities to people.

Other than health planning, the other systems needed for developing the health of the country can be categorised as below:

- Health Delivery System
- Health Education System
- Medical Education System
- Health Research System, and
- Health Insurance and Health Intelligence System

These are described in the following sections.

3.1.1 Health Delivery System

The delivery of health care services to people takes place at three levels: (a) the grassroots (b) intermediate, and (c) apex level. Grassroots level agencies provide the first point contact between individuals and the delivery system where people obtain primary health facilities. There are Primary Health Centres, sub-centres and dispensaries in the rural areas, and dispensaries and hospitals in urban areas. Beside providing the basic medical care, these centres have facilities for preliminary investigations.

When the facilities at first point of contact (grassroots level) are inadequate, individuals are referred to agencies at the intermediate level that generally provide better curative services and testing facilities of a higher order, such as bio-chemical tests, blood and urine culture, blood urea, ultrasound, ECG tests, and so forth.

At the apex level, health institutions provide specialised medical care and super-special services such as cardio-therapic surgery, neuro-surgery and plastic-surgery, besides conducting medical research.

<u>Delivery System at the Centre</u>

The Central Ministry of Health and Family Welfare (MOHFW) is the ultimate authority responsible for setting standards of health facilities, implementing national level health programmes as well as management of its own health delivery system. The Directorate General of Health Services (DGHS) serves as the technical wing of the Health Ministry and implements programmes on its behalf. The Director General advises the Minister on health and allied

matters, co-ordinates programmes and policies and provides technical information and assistance.

MOHFW comprises of the following departments, each of which is headed by a Secretary to the Government of India:

i. Department of Health (DoH)
ii. Department of Family Welfare (DoFW)
iii. Department of Indian System of Medicine and Homeopathy (DoISM&H)

The office of DGHS, a repository of technical knowledge, is an attached office of the Ministry.

The DoH deals with medical and public health matters, including drugs control and prevention of food adulteration. It functions through the DGHS, which also renders technical advice on all medical and public health matters and is responsible for implementation of various health schemes.

The DoFW has the following divisions:

- Urban Health Services and Special Schemes;
- Technical Operations, which looks after the technical aspects of family planning;
- Maternal and Child Health;
- Evaluation and Intelligence, which helps in perspective planning, monitoring and evaluation of the performance of various programmes;
- Information, Education and Communication, which is responsible for providing communication, educational publicity and extension support to the programme through mass education and extension education, and also looks after population education activities;
- Supply;
- Policy;
- Non-Governmental Organisations;
- Area Projects;
- Rural Health Division, which looks after health infrastructure at the periphery level, overseas training and extension components and facilities and services; and
- Family Welfare Budget

The DoISM&H came into being in 1995, when the Government of India bifurcated the DoH. While the ISM&H had always had the broad policy support of the Government, the manpower and financial resources had remained modestly available due to the predominance of the allopathic system. Thus, the formation of a separate department is expected to positively affect the resources and, therefore, the focus on these systems.

In the provision of health care facilities, the Central government intervenes through the following agencies:

- hospitals for the general public;
- health services for Central government employees and their families;
- departmental hospitals for employees of the respective departments; and
- centres for medical education, research and training.

These are described in the following sections.

a) Hospitals for the General Public

There are only 20 Central government hospitals (nine allopathic, one ayurvedic and 10 homeopathic), located in Delhi, that provide medical facilities to the general public.

The Central government also provides full financial support to run a few autonomous institutes, considered to be of national importance. These provide medical care as part of their programmes of medical education and research. The All India Institute of Medical Sciences (AIIMS), Delhi, the Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, and the Jawaharlal Institute of Post-Graduate Medical Education and Research (JIPMER), Pondicherry, are such examples. These are considered to be quasi-government institutes and provide medical facilities at all the three levels.

There are also Central government-aided organisations that provide only apex level medical facilities. The Vallabhai Patel Chest Institute, Delhi and the Mahatma Gandhi Institute, Sewagram (Wardha) are such examples. These are not directly administered by the Central government but the latter shares the expenditures along with the state government and the organisations responsible for their management.

b) Health Services for Central Government Employees

The Central government intervenes directly in providing health care facilities to its own employees and their families through a network of dispensaries (241 Allopathic, 31 Ayurvedic, 34 Homeopathic, 8 Unani, 19 Polyclinics, 2 Siddha units, and 3 Yoga centres) under a contributory scheme know as the Central Government Health Scheme (CGHS). These dispensaries are located in the national capital and in fifteen other cities in the country that have a sizeable number of Central government employees. These dispensaries provide comprehensive medical care to over 4.1 million central government employees and other pensioners, as well as their families.

Under CGHS, the government also runs specialised hospitals such as maternity hospitals. At the intermediate level there are CGHS polyclinics in a few cities where there are a sizeable number of Central government employees. At places where there are no CGHS hospitals, patients are referred to state government hospitals. In case of hospitalisation, patients can be referred to a few hospitals recognised under the scheme. More and more private hospitals are being recognised under CGHS in the CGHS covered cities so as to give choice treatment to the CGHS beneficiaries.

c) Departmental Hospitals for Employees

Some of the ministries and departments of the Central government have their own hospitals for providing medical services to their employees. Significant among them are the Railway and the Defence Services.

The medical system in the Railways is organised in nine zones, and services are provided through a three-tier system in each zone. At the grassroots level there are health units/dispensaries located at points of concentration of railway staff, the maximum distance between any two units/dispensaries being 89 km. The health units, manned mainly by general duty doctors, cater largely to outdoor patients. The facilities for investigations available at these units are very limited.

At the intermediate level, there are sub-divisional or divisional hospitals where junior specialists of all major branches (of medical science) are available, rendering routine care. The laboratory and X-ray facilities provided at these hospitals meet about 80 percent of the investigation requirements of the patients. These hospitals are located at large work spots and divisional headquarters.

At the apex level, there are zonal hospitals where more experienced and better qualified doctors take care of complicated cases. These hospitals function under the control of Additional Chief Medical Officers or the Chief Hospital Superintendents.

It is important to note that the three-tier system functions much more effectively in the case of the Railways than in other organisations. However, their horizontal linkages are extremely limited within a city, and the patients must go to other cities for higher level facilities. Similarly, in the case of emergency alone, the doors of railway hospitals are open to the general public.

The defence services also have their own system of medical care under the Armed Forces Medical Services. The services are provided through clinics and hospitals at various levels. The system, similar to that in the Railways or the CGHS, is open to the general public only in exceptional cases. Access of urban poor to the Central government medical facilities, except in general hospitals located in Delhi and in a few other cities, is thus extremely limited.

The medical personnel, viz., General Duty Medical Officers, Teaching Specialists, Non Teaching Specialists and Public Health Specialists, at the centre, are provided by the Central Health Service (CHS), constituted in 1963.

Delivery System at the State Level

As at the Centre, the Department of Health and Family Welfare of the state government, responsible for the overall health planning for the state, also has a technical wing, namely, the Directorate of Health Services headed by a Director. However, in some states, as in Tamil Nadu, a separate Director for Medical Education also exists. The organisational structure within the Directorate varies from state to state. In most cases, the district level administration functions directly under the state health and family welfare department. However, in some states, the district administration is linked to the state through a set up at the divisional level headed by Additional/Joint Directors as in the case of Madhya Pradesh, Uttar Pradesh and Bihar for example.

The Chief Medical Officer or District Medical Officer is responsible for managing the health system in the district, except the hospital at the district headquarters, which is under the direct control of the Civil Surgeon or his counterpart. In some states, however, there are Block Medical Officers/Taluka Medical Officers who provide a decentralised base for health administration.

Rural Health Services

In rural areas the facilities are provided at the grassroots and secondary levels only. At the village level, each community has at least one trained traditional birth attendant (dai), and a community health guide (CHG), a local worker who receives a small monthly honorarium. For clusters of villages comprising an average 5,000 population (3,000 for tribal and hilly areas), a health sub centre (SC) is provided, staffed by one male and one female multipurpose worker. The female multipurpose worker is often referred to as an auxiliary nurse-midwife (ANM). A primary health centre (PHC) is provided for every 30,000 population (20,000 for tribal and hilly areas), with staff to include one or more medical officers and other paramedicals. SCs and PHCs are the grassroots level units.

Community health centres (CHCs), which form the secondary level units, are to be developed to serve populations of 100,000 and include some inpatient facilities. Higher level referral and inpatient facilities are provided at the district level and in towns and urban centres. The following figure gives the organisation of the health service delivery system in the rural areas

FIGURE 3-1 - THE ORGANISATION OF HEALTH SERVICE DELIVERY IN RURAL AREAS

Administrative Unit	Health/Family Welfare Service
DISTRICT (Population approx. 1-2 million)	
Civil Surgeon & District Hospital----------	----------Health Officer
	Community Health Centre (1 per 100,000 population)
Block (Population 30-50,000)	Primary Health Centre Block Medical Officer Health Assistant, Other Staff
Sub Block	Sub Centre Multi-purpose Workers: 5000 population (Female, Male)
Village	Village Health Guide Trained Dai : 1000 population

The following table gives the expansion of these services over the last few decades:

TABLE 3-1 - EXPANSION OF RURAL HEALTH SERVICES SINCE 1951

Item	1951	1961	1971	1981	1991	1992	1993	1994	1995
CHCs	0	0	0	217	2,071	2,193	2,289	2,321	2,385
PHCs	725	2,565	5,112	5,740	20,450	20,719	21,009	21,155	21,693
SCs	-	-	28,489	51,405	130,958	131,454	131,470	131,471	131,900

The entire expenditure on the health delivery system in the states is borne by the state government.

Urban Health Services

The health delivery system in urban areas in most of the states and union territories operates through a hierarchy of agencies. The following table gives these agencies with their hierarchy.

TABLE 3-2 - AGENCIES IN THE URBAN HEALTH DELIVERY SYSTEM

Hierarchy of Settlements	Agencies
State headquarters/district headquarters	Well equipped hospitals and hospitals associated with medical college
District headquarters	Civil hospitals with high level investigative facilities
Taluka headquarters/Small Town	General hospitals/Talukas hospitals and dispensaries depending on the population size.

It may be seen from the above that the urban health delivery system operates at all the three levels, discussed earlier. The grassroots level constitutes the first point of contact between the individual and the health delivery system where the individual obtains basic health care facility. In general, dispensaries and hospitals in small towns and taluka headquarters provide this contact point. The facilities available at this level are supposed to be adequate for the treatment of cases of general sickness but can only provide immediate relief where the ailment is of a serious nature. Many of these units, however, do not have facilities even for preliminary blood/urine tests.

At the intermediate level, there are hospitals with specialised facilities and for conducting special laboratory tests. These are generally located in district headquarters or in large towns. These hospitals are expected to provide medical care for all ailments except those requiring specialised treatment such as cancer, heart disease and neurological problems.

The delivery system at the apex level consists of hospitals attached to the medical colleges and certain specialised hospitals. It is important that the facilities at the intermediate and apex levels be available without necessary references from a lower level. These hospitals are accessible for normal medical care as well as specialised facilities. However, there are certain hospitals that are exclusively referral. The G. B. Pant hospital run by the Delhi Administration is one such example.

As in the case of the Central health delivery system, in the states also hospitals are of two types: (a) state public and (b) state special.

State Public

State public hospitals are those which cater to the needs of all sections of the population. This category includes certain specialised hospitals such as TB and maternity hospitals at the apex or intermediate level besides the three-tier system discussed above.

State Special

State special institutions are those which are run by specific departments of the state government and are meant for their staff, for persons directly connected with the department and their family members. Jail hospitals falls in this category.

However, for the urban slums, the only organisations with specific outreach services are the Urban Health and Family Welfare Centres (UHFWCs) run by municipal corporations. The UHFWCs are patterned more or less on the PHC concept except for their objectives and staffing pattern which is geared for maternal and child health and family planning services.

Apart from these, the Department of Women and Children's Welfare has its Juvenile Service Bureaus and Child Welfare Centres manned by cadres of social workers, which provide counselling and social services for prevention and rehabilitation of behavioural problems in the slums. These services are mostly in large metropolitan cities and industrialised towns with significant slum population.

Contribution of Local Bodies to the Health Delivery System

Certain local bodies such as municipal corporations and municipal committees also provide medical facilities. Most local bodies in metropolises and in other large cities run hospitals and dispensaries on their own. In the states of Andhra Pradesh, Gujarat, Maharashtra, Tamil Nadu, Uttar Pradesh, West Bengal and Delhi, a sizeable number of hospitals and dispensaries are run by local bodies. On the other hand, there is not a single health facility run by local bodies in Arunachal Pradesh, Assam, Goa, Daman and Diu, Jammu and Kashmir, Kerala, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Lakshadweep and Pondicherry.

The hospitals and dispensaries run by these organisations are similar to those of the state government. They provide medical facilities to the general population which includes free consultation, free clinical tests and free medicines.

Support Services through Voluntary Agencies

Although health delivery is basically the responsibility of the state, voluntary organisations too have joined hands in this. Several of these serve the urban middle and upper classes and extend only minimal facilities to the urban poor. However, there are other organisations which operate in remote areas where the state health system does not reach. The health institutions run by churches, missionaries and charitable organisations are generally engaged in the service of the general population with special concern for the poor, physically handicapped and those suffering from diseases to which social stigma is attached.

These organisations raise funds from different sources within the country and abroad. The Central government provide assistance to them under different schemes. Non-recurring Central government grants are given for acquiring essential hospital equipment. The Central government also provides assistance for the purchase of vans and materials to support voluntary blood donation programmes.

Contribution of Private and Public Undertakings to the Health Delivery System

The large public and private sector undertakings engaged in manufacturing and service activities often provide medical facilities at the grassroots and intermediate levels for their own employees. Obviously, the nature of medical facilities depends on the status of the undertakings and the number of employees. In major public sector projects, a town or a township is created through the location of a public sector undertaking and here the level and quality of services tend to be quite satisfactory. Certain numbers of non-employees population in these townships and their surrounding area are also served by these facilities. Facilities created at Dhanbad for Coal India Limited, at Korba for National Thermal Power Corporation (NTPC), at Bhilai for Steel Authority of India, and at Piplani for Bharat Heavy Electricals Ltd. (BHEL) are some important examples.

In other cases, where the employees with the undertaking constitute only a small fraction of the town population, only grassroots facilities are created for them. Facilities at intermediate level are provided through arrangements with state governments or other organisations. A large number of small public undertakings that do not have their own dispensaries/hospitals provide medical facilities through a system of reimbursement.

Large private companies such as the Modis, Tatas and so on too have created a network of medical facilities to serve their employees. For example, the township of Modinagar originally built by the Modi Group of Industries and Tatanagar built by the Tatas are served by medical institutions set up and managed by these industrial houses. Significantly, these institutions offer certain facilities to non-employees as well. There are several other smaller companies that have established hospitals/dispensaries for their employees and family members, for example, Escorts. Most small private organisations, however, provide medical facilities to their employees either through reimbursement of medical expenses or through fixed medical allowances as discussed in a later section.

System of Reimbursement Complementing the Medical Facilities

Large autonomous bodies, public and private undertakings, that do not have their own health care facilities, generally adopt a system of reimbursement for medical expenditure. Undertakings with limited medical facilities also adopt such a system as an alternative or as complementary to their facilities. Even in the case of Central and state government employees, there is a system of full or partial reimbursement and employees can benefit from it under special circumstances. They can, for example buy the medicines not available in their dispensaries from

Super Bazar. The employees of the Reserve Bank of India can, under similar situations, purchase medicines from any chemist listed in a panel specified for different localities. Similarly, expenses incurred in recognised hospitals on tests and treatment that are not available within the government system are also reimbursable as per specific procedures. The system is generally more liberal in the case of public sector undertakings than in the government, particularly at the state level. The system has several variations:

i) The most commonly used system of reimbursement is that of organisations proposing a panel of doctors who provide free consultation to their employees. Employees can purchase medicines in the open market and claim reimbursement for them.

ii) Organisations sometimes propose a panel of doctors as well as chemists where employees do not have to make cash payments for consultation and medicines. The organisations issue slip-pads, that are handed over to the doctor and chemists (by the patient) who in turn claim the amount from the organisation.

iii) Under a somewhat more liberal system, employees can go to any doctor, purchase medicines from any store and get the expenses reimbursed. While adopting this some organisations have imposed a ceiling on the total yearly claims that can be made by the employees.

iv) Other organisations employ doctors who are designated as Authorised Medical Attendants and who are available during fixed hours for free consultation by the employees. On the recommendation of these doctors, they can purchase medicines from any store and obtain reimbursement.

v) Several organisations pay fixed amounts as medical allowances to employees as in commercial banks, a few public sector organisations and autonomous institutions. The option of accepting a fixed allowance is also given to employees in organisations that have a system of reimbursement of actual expenses. The upper limit of reimbursement is sometimes linked with the basic salary of the employee which makes the above system regressive in nature.

3.1.2 National Blood Bank Services

In India blood collection, storage and other related activities are undertaken in the government sector as well as private and voluntary sectors. The emergence of AIDS has emphasised the need for assuring safety of blood so that the infection is not spread through blood transfusion and blood products. It has been observed that the infrastructure for blood related activities has little or no monitoring and regulation, due to which the services are inadequate and prone to spread of diseases.

The Seventh and the Eighth Five Year Plan of the Government of India launched a comprehensive scheme scheme for blood safety, the following activities have been identified for modernisation of blood bank services:

- Setting up of 34 component separation facilities in blood banks generating more than ten thousand units of blood per annum.
- Strengthening Public Sector blood banks by providing blood banking equipment.
- Providing HIV testing facilities by setting up 154 zonal testing centres all over the country with linkages especially with blood banks located in government, private and voluntary sectors. The district level blood banks are being provided independent HIV testing facilities through supply of HIV testing kits.

The pattern of financial assistance per unit required for improved blood safety services is given in the Appendix B.

Situation of Blood Banking Facilities

The major problems facing the blood banks in India are:

- Violation of rules of Drug Controller of India (DCI) by most of private blood banks
- Improper freezing facilities.
- Inadequate testing, storage and disposal facilities for infected blood.
- Large number of professional donors from low income strata.

Despite tremendous risks involved, about 30 per cent of the blood provided by various blood banks in the country is never tested. Worse still no record is kept of these blood samples.

These statistics have generated little concern because of the acute shortage of blood for transfusion. Nearly 4 million units of blood is required ofr the country but the present collection is merely 2 million units. In such a situation, professional blood donors have increased. They account for nearly a third of the total blood collected in the country.

Supreme Court Directive for Improvement of Blood Bank Facilities

In response to a Public Interest litigation in the Supreme Court for improving the blood bank facilities, the apex court directed that:

- The central government and the state governments shall establish a national council and under the Societies Registration Act. These councils shall be empowered to raise funds from trade, industry and individuals. Funds for the functioning of the councils shall be provided by the Union of India as well as the state governments and Union Territory administration.

- The activities of the national council/state councils shall cover entire range of services related to operations and requirements of blood banks, including the launching of the effective motivation campaignthrough media, for stimulating voluntay blood donations.

- Post-graduate courses in blood banking shall be started in various medical colleges and institutions in the country.

- The Central government shall secure grant of 100 per cent income tax exemption for the donations made to the councils.

- All unlicensed blood banks shall be licensed within one year. The professional blood donor system shall be eliminatedwithin two years.

- The enforcement machinery of the drugs control organisation in the centre/states shall be strengthened.

- Separate legislation, if required, shall be enacted to regulate the blood banks.

3.1.3 Health Education System

Health education is a process that brings about changes in health practices of the people and in the knowledge and attitudes relating to these changes. It has many goals to achieve: communication, motivation and decision making.

Historical Perspective

The beginning of health education in India can be traced back to as early as 1916 when the state of Bihar had established a Public Health Bureau in the Directorate of Public Health. One of the main purposes of the Bureau was to disseminate health knowledge to the people. Similarly, a Health Education Bureau was established in Uttar Pradesh in 1922. However, the focus of the Bureau was on environmental hygiene publicity rather than health education. By 1940s, almost all the states had publicity units in the Directorate of Health Services, with the sole purpose of educating the masses about preventive and promotive health practices.

However, the need for an independent organisational structure for health education was realised for the first time by the Health Survey Committee headed by Sir Joseph Bhore in 1944. The Bhore committee recommended that the Health Departments of Central and State governments should constitute health publicity bureaus, who should participate in the active promotion of health education among all sections of the population, by integrating the educational aspects of preventive health with existing preventive and curative health services. The Committee also recommended that permanent health museums should be established in larger towns and cities.

The result of these recommendations was the creation of Central Health Education Bureau (CHEB), at Delhi, in 1956-57. In the same year, a three month Certificate Course in Health Education was started at the All India Institute of Hygiene and Public Health.

In 1964, training programmes were launched at the district for the District Health Extension Educators. Three month intensive job oriented courses were started at CHEB, Family Planning and Research Centre, Bombay, and Gandhiram Institute of Rural Health and Family Welfare Trust, Gandhiram. A post graduate diploma course in health education was also started at the Gandhiram Institute. The National Institute of Health Administration and Education was also established to provide leadership and post graduate training in health education and administration for senior health personnel.

Until 1977-1978, health education was seen to be a programme in itself. The emphasis was laid more on strengthening health education in totality which should constitute an integral part of every health service activity. However, during the past few years, there has been a shift from holistic to individualistic approach, starting from the policy level. The focus shifted to develop health education in such a way that it can serve a particular health programme. This lead to verticalisation of health education rather than developing it as a whole.

Presently, the CHEB is the apex institute in health education. The next sub section discusses its role in the health education system.

Central Health Education Bureau

The CHEB is one of the technical wings of the DGHS in MOHFW, under the direct control of Director General of Health Services. It started with one unit supported by three members in 1956, and now has six divisions with 100 trained technical personnel. The major objectives of the Bureau are:

- Interpret plans, programmes and achievements of the MOHFW
- Train key health and community welfare workers in health education and research methods and evolve effective methodology and tools of training
- Guide, conduct and co-ordinate research in health behaviour, health education process and aids
- Produce and distribute health education material to the State, District and other levels
- Help Schools and teacher training institutions for health education of the school population
- Provide guidelines for the organisational set-up, and functioning of the Health Education Units at the State, District and other levels
- Render technical and other assistance to official agencies engaged in health education work and to co-ordinate their programmes, and
- Co-operate and collaborate with the international agencies in promoting health education activities

The following figure gives its organisation structure.

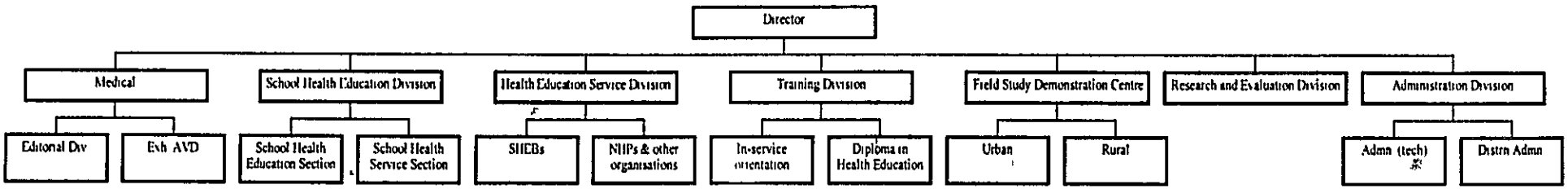


FIGURE 3-2: ORGANISATION STRUCTURE OF THE CHEB

The Media Division is mainly responsible for producing health education and publicity material for carrying out health education in the country.

The School Health Division works with the Ministry of Human Resource Development, NCERT, CBSE, UGC and State Health Education Department for strengthening health education in formal and informal education in the country.

The Health Education Services Division plays a pivotal role in planning, implementation and evaluation of health education programme in the country. Through its counterparts in the states, it works towards integration of health education with health programmes, co-ordination with Governmental, Non Governmental and International organisations. It also provides guidance to the state HEBs.

The Training Division conducts various training programmes and diploma as well as certificate courses in health education.

The Field Study & Demonstration Centre (FSDC) serves as a laboratory for testing and evaluating various methods and media of health education utilised by bureau's staff and trainers.

The Research and Evaluation Division was established in 1960 with the objectives of understanding and promoting behavioural research activities, so as to understand the people's knowledge, their health practices and attitudes towards health problems and programmes.

CHEB is also promoting Health Related Vocational Courses at higher secondary level under a scheme 'Vocationalisation of Secondary Education' launched by Department of Education. This is a centrally sponsored scheme and the courses are being promoted in different states and UTs of the country.

<u>State Health Education Bureaux</u>

Soon after the creation of CHEB, the DGHS approved the scheme to establish Health Education Bureaux in the States in 1959. Some of the State Health Directorates had health publicity sections which were either upgraded or merged with the newly established State Health Education Bureaux (SHEB). The objectives of this scheme are described below.

General and Long Term Objectives

1. Obtain people's active participation and support in public health programmes and policies
2. Assist people in shouldering responsibility for community health
3. Help people in achieving health by their own actions and efforts, and
4. Encourage people in utilising fully the services provided by the government and non government agencies

Specific and Short Term Objectives

Based on the general objectives, the states decide priorities for short-term objectives considering their problems, programmes and needs. However, while providing guidelines to the states, the Central government framed the following common objectives:

1. Collect baseline data on prevailing pattern of health habits, attitudes, beliefs, values etc.

2. Provide in-service training in health education to various categories of health workers and teachers
3. Evaluate health education methods and media
4. Integrate health education in the training courses of health personnel, teachers, village level workers, social workers etc., and
5. Produce and distribute suitable health material

Figure 3.3 gives the organisation structure for SHEB proposed by the DGHS.

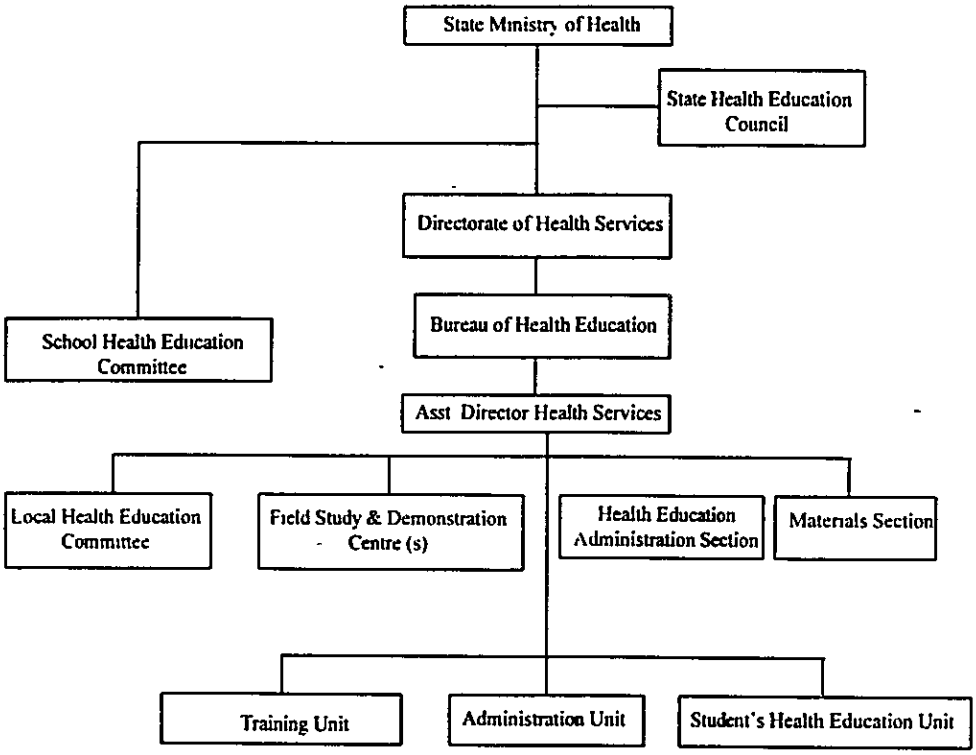


FIGURE 3-3: PROPOSED ORGANISATION STRUCTURE OF THE SHEB

The State Health Education Council is constituted for advising and guiding the Bureau. Its membership comprises:

- Minister of Health
- Four members of the State Legislature interested in health education
- Four representatives from voluntary health and social welfare agencies
- Heads of universities and departments of Health, education, Community Development, Agriculture, Information, All India Radio etc.
- Head of the State Social Welfare Board, Family Planning Board, etc.
- Assistant Director of Health Services (Health Education)

In addition, various technical experts have also been recommended for the Council.

School Health Education Committee was constituted for formulating suitable policies and programmes for school health education. It consists of the following.

- Director of Education

- Director of Health Services
- President of State Medical Council of India
- President of State Teachers Association
- Two representatives from Directorate of Education (Primary and Secondary Education)
- Assistant Director of Health Services (Health Education)

During the last 35 years, the SHEBs have grown in size as well as activities. Further, 116 District Health Education Units have been set up in various states.

School Health Education

School health services existed in India even before independence. However, they covered more middle and high school levels than primary schools. A modified scheme for the school health programme was suggested by a Health Survey conducted in 1946 by the Government of India, interlinking the various components of training, co-ordination and supervision, medical inspection, remedial measures and follow up, control of communicable diseases, and environmental sanitation, into health education. Its implementation, however, has taken place in different phases and periods.

The school health programme was strengthened when the government accepted the recommendations of the School Health Committee presented in 1961. According to this committee, health education was to become part of general education in primary, middle and secondary schools and the state administration was to play a vital role in effective implementation of the programme. It also recommended that the School Health Education (SHE) section in the CHEB and the Students Health Education Unit in the SHEBs should be developed to provide leadership in different aspects of School Health Education.

Institutions Imparting Health Education

In India, institutionalised health education training was started in 1964 at the Gandhiram Institute of Rural Health and Family Welfare Trust, Gandhiram (Tamil Nadu) by way of a Diploma course of one year duration in Health Education (DHE).

In 1966, the All India Institute of Hygiene and Public Health started this course. CHEB started it in 1971. The last institute to start this course was the Rural Health and Family Planning Training Centre, Bombay, in 1987-88. All these institutes are under the MOHFW.

3.1.4 Medical Education System

The centre has set up regulatory bodies for monitoring the standards of medical education to sustain the production of medical and paramedical manpower. For this it has four statutory bodies; the Medical Council of India, Dental Council of India, Indian Nursing Council and Pharmacy Council of India.

Medical Council of India

The Medical Council of India was established as a statutory body under the provisions of the Indian Medical Council Act, 1933 which was later repealed by Indian Medical Council Act, 1956. In 1993, an amendment was made to this Act according to which prior approval has to be taken by the Council to start any new medical colleges or increase the number of seats or start any new courses. Its main role is advising the Union Government on the validity of medical qualifications granted by various institutions.

The main functions of the Council are as follows.

- Maintenance of uniform standards of medical education both at under-graduate and post graduate levels
- Maintenance of All India Medical Register, containing the names of qualified medical personnel
- Reciprocity with foreign countries in the matter of mutual recognition of medical qualifications
- Continuing Medical Education, and
- Provisional/permanent registration of doctors with recognised medical qualifications and issue of Good Standing Certificates for doctors going abroad

Up to March, 1996 there were 155 medical colleges in the country, out of which 139 (102 Government and 37 private) had been recognised by the Medical Council. The admission capacity of these colleges was 14,000 students per year. Besides these, there are over 220 colleges which confer degrees in the indigenous systems of medicine. Intake of MBBS students in various collges in Delhi, Haryana, Maharashtra and Uttar Pradesh are given in Appendix O.

The Council regularly carries out inspections of the medical colleges for continuation of recognition, starting post graduate medical courses, increase in seats, recognition of post graduate medical qualifications, recognition of non-teaching hospitals for housemanship, and recognition of compulsory rotating internship training.

Dental Council of India

The Dental Council of India was set up as a statutory body under the Dentists Act, 1948, with the prime objective of regulating dental education, dental profession and its ethics in the country. For this purpose, the Council carries out periodic inspections of the dental institutions to ascertain the standard of the courses and facilities available for imparting teaching of dentistry. In 1993, an amendment was made to the Dentists Act, according to which prior approval has to be taken by the Council to start any new dental colleges or increase the number of seats.

Indian Nursing Council

The Indian Nursing Council is a statutory body constituted under the Indian Nursing Council Act, 1947. The Council is responsible for regulation and maintenance of uniform standards of training for nurses, midwives, ANMs and Health Visitors. The Council prescribes the syllabi and regulations for various nursing courses.

The inspection of nursing schools and examination centres is done to maintain uniformity and the requisite standard of nursing education in the country. According to information collected by the Council, the total number of qualified personnel as on 31st December, 1994 is given in table 3.3.

TABLE 3-3 - NUMBER OF QUALIFIED PERSONNEL UNDER INDIAN NURSING COUNCIL

Nurses	512,595
ANMs	229,304
Health Visitors	24,411

A scheme for training of nurses was initiated in 1987-88, under which short term, orientation courses are conducted to help nursing educators and administrators in updating their knowledge

in Primary Health Care with special reference to health care delivery system and speciality areas of Clinical Nursing.

Pharmacy Council of India

Pharmacy Council of India is a statutory body constitutes under the Pharmacy Act, 1948. The Council is responsible for the prescription, regulation and maintenance of minimum educational standards for the training of pharmacists uniformly in the country. It prescribes the syllabi, norms etc. for the institutions and relations for diploma course in pharmacy and undertakes the registration of pharmacists.

The Council organises Zonal and National Workshops for uniform implementation of Education Regulations 1991 for Diploma Course in Pharmacy.

Institutions Imparting Medical Education & Conducting Research

Some of the key institutions under the Central Government providing medical education in the country are given below.

Rajkumari Amrit Kaur College of Nursing, New Delhi

Established in 1946 as a subordinate organisation of the MOHFW, it conducts under-graduate and post-graduate courses in nursing. The college also provides advisory and consultative service on nursing education matters to states, UTs and to some of the developing countries also. It has been designated as a WHO collaborating Centre for Nursing Development.

Lady Reading Health School, Delhi

A pioneer institution for training of Health Visitors, this was established in 1918. The school aims at providing training facilities to various categories of nursing personnel in Community Health as well as MCH and Family Welfare services through an attached centre: Ram Chand Lohia Infant Welfare Centre.

All India Institute of Medical Sciences, New Delhi

Established by an Act of Parliament in 1956, AIIMS enjoys the status of an institution of national importance. For the purpose of medical education and training, it pursues the courses and curricula independent of the Medical Council of India. It awards its own degrees and is considered to be a leader in the field of medical education, research and patient care. It was established to develop patterns of teaching in under-graduate and post-graduate medical education to achieve the following objectives.

- to demonstrate a high standard of medical education to all medical colleges and allied institutions in India
- to bring together educational facilities of the highest order at one place, and
- to attain self sufficiency in post graduate medical education

Major research work in the areas of diarrhoeal diseases, micronutrient deficiency, reproductive biology, oncogene, signal transduction, immunity of malarial parasite, micobacterial studies in TB and leprosy, developmental genetics, hepatitis, computer models for nmr bone marrow and genetics is carried out in AIIMS.

Jawaharlal Institute of Post-graduate Medical Education and Research, Pondicherry

It was established in 1956 with the following aims and objectives.

- to develop patterns of teaching in under-graduate and post graduate medical education
- to impart rural orientation
- to emphasise the preventive and promotional aspects of community health, and
- to integrate family welfare with the general package of health and nutritional services

The institute is actively engaged in research activities with the funds drawn from mural and extra-mural sources like ICMR, UGC, WHO. It has collaborations with various international agencies in joint research projects.

Post-graduate Institute of Medical Education and Research, Chandigarh

An autonomous body of national importance, one of the main objectives with which this institute was set up is to conduct research of the highest order. The other objectives are listed below.

- to train post graduate in all branches of medicine
- to conduct research of the highest order, and
- to provide patients' care of a high quality in the country

Basic as well as applied research is being carried out on several national priority areas; such as, Malnutrition, Vitamin A Deficiency, Rehabilitation of Disabled, Cancer, Leprosy, De-addiction and treatment of Genetic Disorders. The institute is equally involved in research for rural and community related environment and health problems. It has been recognised by National AIDS Control Organisation for investigative survey of AIDS.

Besides the above, most of the other teaching institutes, under various state governments, have research as one of their acknowledged objectives. However, this aspect of health management is highly neglected by most of these institutes. Also the researchers are hardly associated with the decision-makers and universities in the country. Due to these weak linkages, interdisciplinary and collaborative research amongst different institutions is negligible.

Lady Hardinge Medical College and Associated Hospitals, New Delhi

Established in 1916, its main objectives were to provide higher education for women, medical care for women and children and training of women as nurses. It has been designated as a WHO collaborating centre for reference and training in Streptococcal disease since September 1989.

Mahatma Gandhi Institute of Medical Sciences

Established in 1969, as an experimental rural medical college, its objective was to develop a pattern of graduate and post-graduate education best suited to India's pre-dominantly rural population.

National Institute of Communicable Diseases, Delhi

Established in 1963 by expansion and reorganisation of the erstwhile Malaria Institute of India, its objectives include organising training programmes at national and international levels for

raising trained manpower for programme management and augmentation of research. It has been rendering pioneering services in the development of manpower in respect of various communicable diseases and control measures thereof by way of organising various courses viz. Malaria, Malaria Entomology, Vector Biology and Control, Epidemiology, Diarrhoeal Diseases, AIDS, Expanded Programme of Immunisation etc. Scientists in these fields are brought together to get acquainted with the recent development by organising workshop/seminars funded by WHO, UNICEF as well as national government.

One of the key objectives of NICD is to provide basic and applied research on various aspects of communicable diseases. It also provides guidelines in the planning of epidemiological services, organising field investigations of communicable diseases outbreaks and suggest control measures. It has eight divisions, viz. Bio-chemistry and Bio-technology, Helminthology, Medical Entomology and Vector Control, Microbiology, Training and Malariology, Zoonosis, and AIDS. Each of these divisions carry out research activities in their areas.

All India Institute of Physical Medicine and Rehabilitation, Mumbai

Established in 1955, it is a pioneer institute in the whole of South-Asia with facilities for Medical Rehabilitation Services. It undertakes training at the graduate and post-graduate level in Rehabilitation Medicine.

All India Institute of Speech and Hearing, Mysore

Established in 1965 and registered as an autonomous body in 1966, one of its major objectives is to provide and assist in imparting general professional and technical education and training in Speech and Hearing for Graduate, Post-Graduate and Doctoral Degrees (Speech and Hearing) courses of Mysore University.

One of the important objectives of the institute is to provide encouragement and make available facilities for research in Speech and Hearing, their disorders and the concerned diseases of the ear, nose and throat. The institute is engaged in various research activities like Acoustic analysis of speech sounds and voice; Project on "Production of Language Training Materials in major Indian languages" funded by UNICEF.

Central Institute of Psychiatry, Ranchi

Directly under the control of DGHS and MOHFW, this institute caters to the needs of people from all over India and the two neighbouring countries of Nepal and Bhutan. It conducts post-graduate courses in Psychiatry, Clinical Psychology, Psychiatric Social Work and Psychiatric Medicine, M.Phil. in Clinical Psychology and Psychiatric Social Work. Ph.D. in Clinical Psychology and D.P.N. Psychiatric Nursing.

The institute also conducts research in behavioural sciences.

Central Research Institute, Kasauli

The CRI was established with one of the main objectives of research and development in the field of Vaccinology. Established in 1905, CRI also undertakes training in production and quality control of vaccines and sera. It also has a Rabies Research Centre responsible for carrying out research activities like diagnosis of rabies.

Vallabhbhai Patel Chest Institute, University of Delhi

A national medical institute devoted to research and post-graduate teaching in chest diseases and allied disciplines, VPCI is financed by the MOHFW, and is a maintained institution under the University of Delhi. It conducts training of post-graduates in tuberculosis and respiratory diseases as well as allied subjects.

The major activities of VPCI include research on fundamental and clinical aspects of chest diseases, development of new diagnostic technology and its dissemination in the country. The research here is carried out mainly in area of chest problems like, effect of air pollution on respiratory health and modulation of airway response to exercise in asthmatics by disodium cromyoglycate.

All India Institute of Hygiene and Public Health, Calcutta

The All India Institute of Hygiene and Public Health, the pioneer institutes in the field of Public Health in the country, was established in 1932 with the following aims and objectives:

- To develop manpower in the field of Public Health in the country by providing post-graduate training facilities;
- To conduct research relating to various health problems and diseases in the country; and
- To undertake operational research to develop methods for optimum utilisation of health resources and application of the findings for protection and promotion of health care services.

The institute carries out a large number of research projects every year. The ongoing projects concern important areas of health, environmental status of children and tribal women.

Central Leprosy Teaching and Research Institute, Chengalpattu

As the apex centre for training of leprosy staff, it was taken over by the Government in 1974, with the objective of providing training to leprosy staff, referral services to leprosy patients and to conduct operational field research in leprosy.

Besides this, the three Regional Leprosy Teaching and Research Institutes at Raipur, Aska and Gouripur provide training to the para-medical workers, non-medical supervisors and laboratory technicians.

National Tuberculosis Institute, Bangalore

Established in 1959, the main function of NTI is Intensive Field Research in epidemiological, bacteriological, sociological and operational aspects of TB and its control. NTI also conducts job-oriented in-service training and training programmes to DTCs' key personnel. In addition Group Educational Activities are conducted with the assistance of WHO for senior officers in various states.

The LRS Institute of Tuberclosis and Allied Disease, an autonomous institute under the MOHFW, is also recognised as a WHO collaboration centre for research, teaching and training of various medical and paramedical staff.

Rural Health Training Centre, New Delhi

As a training centre for imparting training in community health services and rural health, it conducts training programmes for nursing students of different Nursing Institutes in Community Health Nursing, for interns, for TBAs and for ANMs.

National Institute of Mental Health and Neuro Sciences, Bangalore

Established in 1974 as an autonomous body, NIMHANS is a deemed university conducting courses in the areas of Psychological Medicine, Clinical Psychology, Psychiatric Nursing, Neurology, Neurophysiology, Psychiatric Social Work, Medical and Social Psychology, Biophysics and Neuro Nursing and Clinical Neurophysiology Technology.

NIMHANS also carries out research activities in the areas of Mental Health and Neurosciences.

National Academy of Medical Sciences, Madras

Established in 1961, the objective of NAMS is promoting the growth of medical sciences. It recognises talent and merit throughout the country in the form of election of Fellows and Members of the Academy.

Continuing Medical Education (CME) programme is being implemented by NAMS since 1982, to keep medical professionals abreast with current problems of the country and help medical students in preparing for post-graduate examinations of various universities and National Board of Examinations. Under CME programme, Junior scientists are also sent to Centres of Excellence which provide training in advance methods and techniques.

Besides the above, there are various other institutes under state governments and in the private sector, responsible for developing manpower in the medical sector.

All India Entrance Examinations for admission to various courses

All India Entrance Examination for Admission to MBBS and BDS Courses, conducted by the Central Board of Secondary Education (CBSE)

All India Pre-medical/Pre-Dental Entrance Examinations are conducted by the CBSE in respect of 15 percent seats in medical/dental courses at 310 centres spread all over the country. The candidates can choose one of the seats available as per their merit position.

All India Entrance Examination for Admission to 25 percent Post-Graduate Seats conducted by AIIMS

AIIMS is responsible for conducting the entrance examination at the post graduate level for 25 percent of the total post-graduate seats in recognised mental and dental colleges. Here to, the candidates can choose the seat as per their merit position.

National Board of Examinations

The National Board of Examinations was established in 1975 and became an independent autonomous body under MOHFW in 1982. It conducts post-graduate and post-doctoral examinations in 32 disciplines of medical sciences (21 broad and 11 super specialities) and awards its own degree known as Diploma of National Board which is equivalent to MD/MS/DM/MCH of other Indian Universities.

It also accredits various institutions/hospitals which have facilities in terms of manpower and other infrastructure in the private and public sector for training of candidates taking the Board's examinations.

DGHS Scholarship Scheme

Under this scheme, scholarships are awarded to students of Indian Nationality, who are pursuing their studies in MBBS/BDS, M.Sc./Ph.D. in certain selected specialities and super specialities in which adequate trained personnel are not available.

National Medical Library

The National Medical Library has the goal of providing wide and efficient information services to all health science professionals, by setting up a viable Network of Health Science Libraries in the country.

It has a collection of over 0.3 million publications of different nature, which is the largest in South East Asia Region; and is a depository library of all WHO publications. The Library catalogue is machine readable, and it also offers Information Search Service using MEDLINE AND HEALTH PLAN database.

It is the National Focal Point of the HELLIS (Health Literature, Library and Information Services) Network in India.

Curriculum

The most common curriculum schedules in the medical colleges are of a duration of four and half years. While most of the colleges divide this period into the pre-clinical, para-clinical and clinical phases, of equal duration, there are exceptions. AIIMS, for instance has reduced the pre-clinical period by six months and added this to the clinical phase so that students get more experience at handling patients.

Medical education in India is founded on the British model, with its approach being the development of academic disciplines in clinical subjects with rigorous application of scientific methods of diagnosis and management of disease. There is lack of any education on behavioural sciences which deal with the human being's mental and cultural aspects of life and form a very critical part in the development of health. Besides, the knowledge imparted to the students is often irrelevant and unrelated to daily needs. Rare disorders are emphasised as opposed to those which are widespread.

However, some modifications have been made in the curriculum recently. In the last few years, much research has been directed towards study of power of mind in the process of health and well being. A fresh discipline called psychoneuroimmunology has emerged.

Teaching continues to be in the form of lectures, thereby suppressing active learning through seminars, workshops or question-and-answer sessions for appropriate skill development.

3.1.5 Health Research System

Health Research plays a critical role in tackling the national health problems and concerns. By strengthening efforts in this area, any nation can work effectively towards bettering the health status of its own people and contributing towards an international strategy for health promotion.

In India, the research activities in health and family welfare sector can be classified into the following.

- Demographic Research and Evaluation
- Health Research, and
- ISM&H Research.

Demographic Research and Evaluation

The MOHFW has established a network of 18 Population Research Centres (PRCs) scattered in 17 major states of India for carrying out research on various topics of Population Control, Demographic and Socio-Economic Surveys in Family Welfare Programme. Of these, 11 Centres are located in universities, 6 in NGOs of repute while one centre is functioning under the Government of Madhya Pradesh.

These centres are of two types viz. (i) fully developed centres and (ii) not fully developed centres depending upon their staff strength, budgetary allocation, and work load and contingency. These centres are provided with 100 percent financial assistance in the form of grants-in-aid on year to year basis, towards salaries of staff, books and journals, stationary, vehicles for field surveys and other infrastructural equipment.

Research studies/papers are brought out by these PRCs on various topics such as:

- Trend in Population Growth
- Economic characteristics of rural/urban population
- Evaluation of Family Welfare and MCH Programme
- Immunisation Programme
- Motivation and Incentives/Disincentives of Family Welfare Programme

These PRCs were also involved in report writing of their states for nation-wide survey, 'National Family Health Survey' with the assistance of USAID.

Sample verification of family planning acceptors is carried out by the State Demographic & Evaluation cells, Regional Health Offices and Regional (Central) Evaluation Teams in order to know the impact of Family Welfare Programme and to have a continuing check on the reliability of reported statistics. The findings of these sample checks are communicated to these states for further necessary action in the direction of improving the quality and effectiveness of the programme.

Health Research.

For the large part, research activity in India is confined to the ICMR and its network of institutions. Though all the medical education institutes have research as one of their major objectives, except in some speciality institutes mentioned in the previous section, there is hardly any activity carried out in the teaching institutions. The private sector as well as the voluntary sector have also ignored this aspect of health management.

Indian Council of Medical Research

ICMR is the apex national organisation established in 1911 for promoting bio-medical and health research in the country. In order to achieve this, the Council has taken steps to establish research institutes and regional centres under its control. The council also provides support for Centres for Advanced Research besides providing financial and other support for extramural research to scientists from non-ICMR research institutes, medical colleges and universities in the form of

adhoc schemes and fellowships. ICMR also undertakes training/post-graduate courses, besides organising workshops, for the benefit of the researchers and students.

The Council, in addition, supports a number of multi-centric co-ordinated National Task Force Projects. Apart from conducting research, the permanent institutes of the Council are engaged in organising workshops, training/post-graduate courses for the benefit of researchers and students. The Council awards a number of prizes and awards every year to young and established biomedical researchers.

The various areas of research include communicable diseases, reproductive health, MCH/FP, nutrition, non-communicable diseases, environmental and occupational health, basic medical sciences and traditional (indigenous) medical research.

Other Research Institutes

Other than ICMR, the following central institutes are involved in carrying out specialised research in their areas of operations.

- ***LRS Institute of Tuberculosis and Allied Diseases***

The institute, started in 1952 by TB Association of India, is now an autonomous institute under the MOHFW. The institute is deeply involved in the research activities in Tuberculosis and chest diseases.

- ***National Institute of Biologicals***

The institute has been recently established by the MOHFW in joint collaboration with United States Government and Government of Japan to fulfil the need for a high standard of quality of biological products like vaccines, blood and blood products, reagents and immunodiagnostic kits, and develop uniform methodology in their use in the country. Though its primary objective is quality control, it is equally important for it to conduct ongoing research to maintain its level of expertise in the development of newer manufacturing and testing processes.

- ***Leprosy Teaching and Research Institutes***

Many institutes are involved in research activities regarding Leprosy at the state and central level like, Central Leprosy Teaching and Research Institute, Chengalpattu; Regional Leprosy Teaching Research Institutes at Aska, Raipur and Gouripur.

<u>ISM&H Research</u>

The apex bodies for research in ISM&H are given below which are fully financed by the Government of India. There are four research councils , namely

- Central Council for Research in Ayurveda and Siddha (CCRAS)
- Central Council for Research in Unani Medicine (CCRUM)
- Central Council for Research in Homeopathy (CCRH), and
- Central Council for Research in Yoga and Naturopathy (CCRYN)

The main aim of these councils is to initiate, aid, guide, develop and co-ordinate scientific research, both fundamental and allied, in different aspects of the respective systems.

Central Council for Research in Ayurveda and Siddha

The CCRAS is an autonomous body under MOHFW. It is an apex body in India for the formulation, co-ordination, development and promotion of research on scientific lines in Ayurveda and Siddha. The Council carries out its objects and functions through the network of 6 Research Institutes and Centres Central Research Institutes, 8 Regional Research Institutes. 10 Regional Research Centres, 1 Documentation Centre, 37 Research Units, 9 Tribal Health Care Research Project, 1 Research unit on Tib Medicine, 12 Family Welfare Research Projects, and 5 other major research institutes/centres, functioning under its direct control and through a number of units located in universities, ayurveda/siddha and modern medical colleges in different parts of the country.

Some of the main research programmes being carried out by the CCRAS are Health Care Research Programme, Drug Research Programme, Family Welfare Research Programme.

Central Council for Research in Unani Medicine

CCRUM carries out its multifaceted research activities in the fields of clinical research, drug research, literary research and survey and cultivation of medicinal plants along with Family Welfare Research Programmes. These activities are carried out through a network of 32 institutes/units functioning in different parts of the country.

Central Council for Research in Homeopathy

The CCRH is engaged in systematic and scientific research in the field of Homeopathy and was constituted on the 30th March, 1978 as an autonomous organisation under the MOHFW. It has a network of 51 Institutes/Units located in the various parts of the country. The Council carries out research activities in the field of the clinical research, clinical verification, drug proving, drug research and standardisation including survey and collection of medicinal plants, literary research and documentation.

Central Council for Research in Yoga and Naturopathy

The CCRYN is a society registered under the Societies Registration Act, XXI of 1860, with a view to develop yoga and naturopathy. It is looking after the research, training, education and propagational aspects of these systems. It sanctions time-bound clinical research projects to various voluntary organisations.

Central Research Institute for Yoga

The CRIY was established in 1976 to conduct clinical, fundamental yoga research and promotes yoga.

3.1.6 Health Insurance and Health Intelligence System

<u>Health Insurance</u>

Health Insurance in India is almost non-existent. Health coverage is provided by the state and central governments to workers in the organised sector through the Employees State Insurance Corporation (ESIC) and the CGHS as described in 3.1.1(b). These schemes are conceived as a social security benefit for the workers in the formal sector. Enrolled workers and their dependants are eligible to use special designated ESIC and CGHS hospitals. The number of ESIC hospitals in India rose from 31 in 1964 to 104 in 1989. In the absence of insurance

facilities in the vicinity, employers are also entitled to contract out to the private sector. A panel of private practitioners are paid a fixed amount per insured person to provide health coverage.

ESI is a contributory scheme that covers workers in factories registered under the Factories Act (1948), namely,

- manufacturing units employing more than 20 persons
- units using electricity and employing 10-19 persons
- shops, hotels, restaurants, cinemas, road transport organisations, newspaper establishments and such others employing 20 or more persons.

Until 1992, employees drawing a salary of Rs. 1,500 or less per month were entitled to ESI. Contributions were taken at the rate of 2.25 per cent of the basic salary from the employees and at the rate of five per cent from the employers for all employees covered under the scheme. Employees earning less than Rs. 6 per day were not required to pay any contribution, but the employers had to pay their share. The state governments contribute 12.5 per cent of the total expenditure under the system in all the states. However, in 1992, several changes were made in the ESI scheme, the coverage limit was doubled from Rs. 1,500 to Rs. 3,000; but the contributions were reduced to 4 percent of workers' wages for the employers and 1.5 percent for the workers. The central government also makes some contribution to the scheme. Besides the medical facilities, workers are entitled to benefits for sickness, disablement and rehabilitation under the scheme.

The proportion of expenditure on ESIC as a percentage of total government expenditure has increased steadily over successive plan periods; from 0.44 percent of total medical expenditure in first plan to 11.49 percent in the Sixth Plan. The number of beneficiaries, including dependants, has also increased from 1.29 million to 26.41 million during the same period. Table 3.4 gives the growth in the number of workers insured and beneficiaries thereof over the last six years.

TABLE 3-4 - GROWTH IN THE NUMBER OF WORKERS INSURED AND BENEFICIARIES OF ESIC IN LAST FIVE YEARS

(IN MILLION)

Year	Workers Insured	Beneficiaries
1991	6.89	26.75
1992	6.11	23.70
1993	7.44	28.88
1994	7.39	28.69
1995	7.56	29.39
1996	7.30	n.a.

It may be seen that there has been a stagnation in the number of insured beneficiaries in the 1990s. Even for the earlier periods, the increase in the number of ESIC beneficiaries has not been commensurate with the growth in the number of workers in the organised sector. In the year 1955-56, 38.24 percent of the total organised sector was under the ESIC, whereas by 1988-89 it had dropped to 29.29 percent.

Levels of expenditure on ESIC vary considerably across different states. States with high expenditure on ESIC are usually associated with a relatively larger share of the country's organised sector. They also rank higher in indicators of development and in various measures of industrialisation.

However, the quality of care provided by ESIC institutes is widely perceived to be poor. There are allegations that hospital equipment is frequently in a state of disrepair, entire speciality departments within the hospitals are often not working, and there is a gross understaffing at the institutes. There have also been accusations of negligence and corruption in ESIC institutes.

Although this scheme is beset with problems, especially in terms of financial viability and operational quality, yet this is the only scheme which provides any fall back support to sick workers. Half wages are paid up to 91 days and in the case of 30 listed chronic diseases, up to two years. In case of disability, the pay-out is more generous; 70 percent for the period of temporary disability, and if the disability is permanent, till the retirement age. 70 percent of the wages is given as pension to dependants of insured workers after they die.

Mahatma Gandhi Institute of Medical Sciences has, over the last 40 years, evolved various forms of health insurance schemes in the unorganised sector, through which, an attempt has been made to create health consciousness and motivation amongst the community to plan available preventive and curative services at the time of ailment.

Health insurance schemes for individuals and corporations have recently become available through the General Insurance Corporation of India (GIC) and other government owned monopolies. As mentioned in the earlier section, the government also provides direct health services for employees of large number of state owned enterprises such as railways, who have their own system of dispensaries and hospitals. Similarly, private sector also provides facilities for its employees either in terms of medical institutions, or in form of reimbursements.

Health Intelligence

The Central Bureau of Health Intelligence (CBHI) is the Health Intelligence Wing of the Directorate General of Health Services. It collects, analyses and disseminates the information on health conditions in the country, covering various aspects of health including health status, health resources, utilisation of the health facilities etc. The Bureau is actively engaged in the monitoring and evaluation of strategy for Health for All by 2,000 AD in India.

It has six field survey offices of the Regional Director (Health and Family Welfare) at Patna, Bangalore, Bhubaneswar, Jaipur, Lucknow and Bhopal. These offices carry out various field studies in health related matters.

The National Health Policy has emphasised the importance of an efficient and effective management information system in health and family welfare sector. In pursuance of this, a computer compatible health management information system (HMIS) has been designed by the CBHI in collaboration with the participating states, National Informatics Centre and WHO. The system is being implemented in the States/UTs of the country in phases. Until March 1996, 15 States/UTs had sent proposals for implementation of HMIS in their respective States/UTs. WHO had released the funds to 13 of these and process was on for release of funds to the rest. Haryana and Sikkim had already implemented the system; and Rajasthan and Tripura were in the process of doing so. Training had been completed for Gujarat, Andaman & Nicobar Islands and Dadar & Haveli.

A beginning has been made in this critical aspect of health management. It is anticipated that this HMIS would play a vital role in development of health plans and policies in the future, as well as evaluating the performance and effectiveness of these plans and policies.

3.2 THE ROLE OF NGOS IN THE SECTOR

Besides the government and private institutions, the non-government organisations are also very active in the health sector. These are involved in promoting health, development, education and social welfare in urban as well as rural areas. Women's organisations form a distinctive strand within the social action group movement. A lot of them provide health services for women, and help women achieve a measure of independence through vocational training and income generating schemes.

Alongside these NGOs and community groups have many traditional charities which make grants for social causes or directly provide services such as schools, hospitals, orphanages and homes for people with disabilities.

More recently, a lot of NGOs have begun providing those working at grassroots level with training, research, evaluation, documentation and opportunities for networking with one another.

There are two kinds of NGOs operating in the health sector: the large apex and state level NGOs and the smaller grassroots NGOs working only at the district level. Details related to activities of some key National level, State level and District level NGOs are given below.

3.2.1 Voluntary Health Association of India

The Voluntary Health Association of India (VHAI) has its origins in the Co-ordinating Agency for Health Planning (CAHP), which was established in 1970 with a view to operationalise community based health care and foster greater co-operation among the various health care agencies towards this cause. CAHP was established as a non-profit and charitable registered society to operate at the national level. In 1974, the then 15 existing Voluntary Health Associations (VHAs) at the state level decided to federate into VHAI, replacing CAHP. It was registered under the Societies Registration Act in 1976. It links over 3000 grassroots level organisations and community health programmes spread across the country.

VHAI's primary objectives are to promote community health, social justice and human rights related to the provision and distribution of health services in India.

VHAI fulfils these objectives through campaigning, policy research, and press and parliamentary advocacy, through need-based training and provision of information and documentation services; and through production and distribution of innovative health education materials and packages in the form of print and audio-visuals. VHAI caters to a wide spectrum of users both in the urban and rural areas.

VHAI's major activities are aimed at achieving the following objectives:

- Promoting a people's health movement and strengthening community health services through networking, lobbying, campaigning and public affairs related activities.
- Helping in the evolution of low-cost, effective and people-oriented health programmes in harmony with the traditional knowledge and skills of the community.
- Providing support services to community health programmes of members and associates.
- Conducting research and training on various aspects of primary health care.

Major initiatives of VHAI include the development of an extensive countrywide network of health workers, holding of regional conventions of village health workers in various parts of India, publication of information related to health subjects, community health promotion through training, investigation and field research in public policy, conducting workshops and seminars

and representation at the government policy-making level through nomination to committees of ministries, Planning Commission and other government bodies.

VHAI's communications division was originally developed as a supportive service for training and information campaigns, but has grown into one of the largest centres in the Third World for low-cost health education material. The Division provides technical input and support to VHAI programmes by developing and producing simple, low-cost and relevant health education materials for different target groups.

VHAI's organisation structure comprises a General Body with state VHA representatives, a Governing Board, and an Executive Director to manage the activities.

3.2.2 Family Planning Association of India

Founded in Bombay in 1949, the Family Planning Association of India (FPAI) is a national voluntary organisation devoted to promoting knowledge of family planning as a basic human right, as well as population policies which can help to bring about a balanced development of the resources of the country, as a means towards improving the quality of life.

The Association carries on extensive programmes of information, education and motivation, offers clinical and non-clinical services for family planning and maternal child health, and conducts training of personnel and research of various types. During the last twenty years, the Association has expanded its range of activities through programmes on population education for the younger generation.

The Association conducts rural projects where family planning is integrated with other developmental activities, in different parts of the country, and its coverage includes over 3550 villages. It also uses innovative approaches to intensify community involvement, especially in rural and semi-urban areas, to bring about local self-reliance in programme planning and implementation for family welfare and developmental activities. FPAI also co-operates with the government actively participating in the formulation of national policies and programmes and complementing and supplementing its activities.

3.2.3 Family Planning Foundation

Established in 1970, the Family Planning Foundation is India's premier non-governmental organisation in the area of family planning, throwing light on the strengths and weaknesses of the programme, seeking to enlarge the former and minimise the latter. The Foundation, sponsored by a group of leading industrialists, professionals, social workers grew out of the realisation that the magnitude and complexity of India's population and development problems called for galvanising voluntary efforts to supplement the Government's programme.

The aims of the Foundation are to help raise the level of family planning beyond its traditional confines by focusing on the variables restricting its operation and to support innovative research, experimentation and social action from the point of view of throwing up viable, replicable programme models.

The Foundation's funds are utilised in promoting research and related programmes, and to guide and support interested and positively motivated organisations, institutions, particularly, non-governmental, and individuals engaged in innovative research and action research programmes in population, family planning and related fields. As part of this process, it lays stress on aiding voluntary organisations to mobilise resources, augment their institutional structures and develop research capabilities.

Projects and programmes with replicative and high feedback value, both long-term and short-term, receive the highest priority. The operational area of the Foundation embraces the whole country. It operates in close proximity with the policies and priorities of the population and family planning programmes of the government and meaningfully relates its efforts to these programmes.

3.2.4 Centre for Health Education Training and Nutrition Awareness

Centre for Health Education Training and Nutrition Awareness (CHETNA) was established in 1979 as a voluntary agency affiliated to the Nehru Foundation for Development at Ahmedabad. In an effort to reduce the alarmingly high infant mortality rates, the organisation works towards creating an awareness about all aspects of health and nutrition among the most needy communities. The emphasis is on the preventive and promotive aspects of health, nutrition and child care.

The objectives of the Centre are as follows.

- To empower women in tribal, rural and urban slum areas through participatory training programmes which equip them with the basic self help and child care skills.
- To train all levels of workers of both the governmental and non governmental agencies active in the field of health and nutrition.
- To prepare appropriate field tested communication and training material covering all aspects of health care and nutrition.
- To network governmental and voluntary agencies working in this field so as to share experience and strengthen existing programmes.

Major projects undertaken by CHETNA include the following.

- Child Survival Project
- Child to child project
- Nutrition and Health Education Training
- Awareness Generation

3.2.5 Catholic Relief Services (CRS)

CRS is an organisation registered in USA with operations in about 70 countries in South Asia, Africa, Eastern Europe (especially Bosnia), Russia, and Latin America. It is formed by the American Catholic Church. CRS came in India in 1946, when it had brought its resources. The operations were, however, started in 1950 under an Indo-US Governments' agreement.

<u>Development Work</u>

CRS is working in the following fields:

- Health
- Agriculture
- Human Capital Development (HCD)
- Small Enterprise Development (SED)

The HCD and SED help in providing sustainable solutions in the areas of health and agriculture, by making the beneficiaries self-sufficient. The organisation has been able to realise that success in any development activity has to necessarily have close involvement of the women of the area. The SED, where the local community start thrift enterprise, providing loans at low interest rates, involves women and so affects other development efforts also.

Geographical coverage

Earlier, CRS was functioning primarily in the southern Indian states of Tamil Nadu, Kerala and Karnataka. It has since closed operations in most of the southern states. The concentration has now shifted to the poor states of Bihar, Orissa, Eastern Uttar Pradesh and Madhya Pradesh. Sixty to seventy per cent of the CRS work is now being undertaken in these states.

CRS has four offices in India, besides the Country head office at Delhi. These offices are at Chennai, Calcutta, Mumbai, and in Uttar Pradesh. The Delhi office is mainly an administrative office.

Structure of the CRS Activities

The Zonal Offices associate with large NGOs termed in CRS as Counterparts (CPs) in every region. There are a total number of 50 CPs in India working with CRS. Each CP associates with Operating Partners (OPs), typically 40-50 in a region. One OP generally works in 5-6 villages. Around 2500 small NGOs (OPs) work with CRS. This structure helps CRS to remain in touch with the smallest units of development work and still have a lean organisation.

The structure has two important aspects, i.e.; Counterpart selection procedure and Capacity Building. The selection procedure is very strict and is used to basically evaluate the capacity of the CP to undertake the quantum and quality of work that CRS is committed to. The details of the selection procedure is given in Annexe 1.

The structure is illustrated in the figure below.

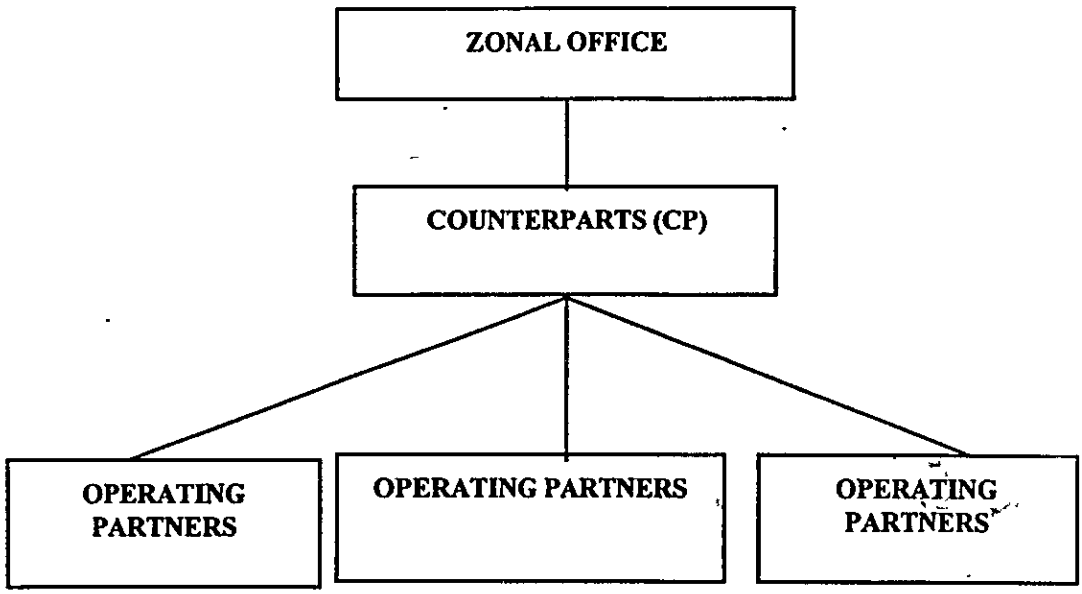


FIGURE 3-4: STRUCTURE OF THE CRS DEVELOPMENT FRAMEWORK

Control Activities

The activities of the organisation are evaluated for proper accountability within CRS and amongst CPs and OPs. There is an Internal Audit department which undertakes control activities within the organisation and the External Auditors; Lovelock and Lewes undertake audit of CRS activities world-wide. The CPs undertake 100% audit of the OPs' activities, whereas CRS undertakes 100 per cent audit of CPs' work besides audit of a sample representing 25 per cent of all the OPs.

Project Selection

The project is typically conceived at OP level. The OPs evaluate the needs of their areas and approach the CP concerned on the project. The project is reviewed by the CP and evaluated according to its feasibility and the availability of the resources with CRS. The projects are then brought to the CRS for support.

Quantum of Work Undertaken

The total programme value of CRS in 1995 was US$ 18,219,624; the break-up by Category and source is given in the following figure.

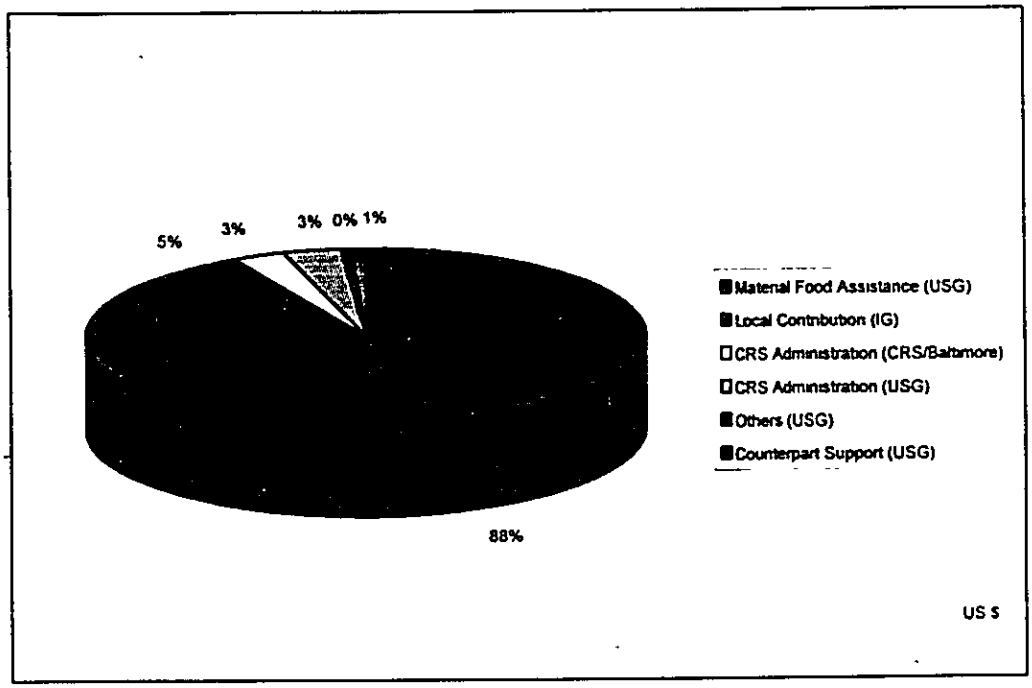


FIGURE 3-5: SUMMARY OF PROGRAMME VALUE

Note:
i. USG: United States Government
ii. IG: Government of India

The break-up of the financial commitment for projects as well as of the participants by Programme Area for the 1995 are given in the following figures.

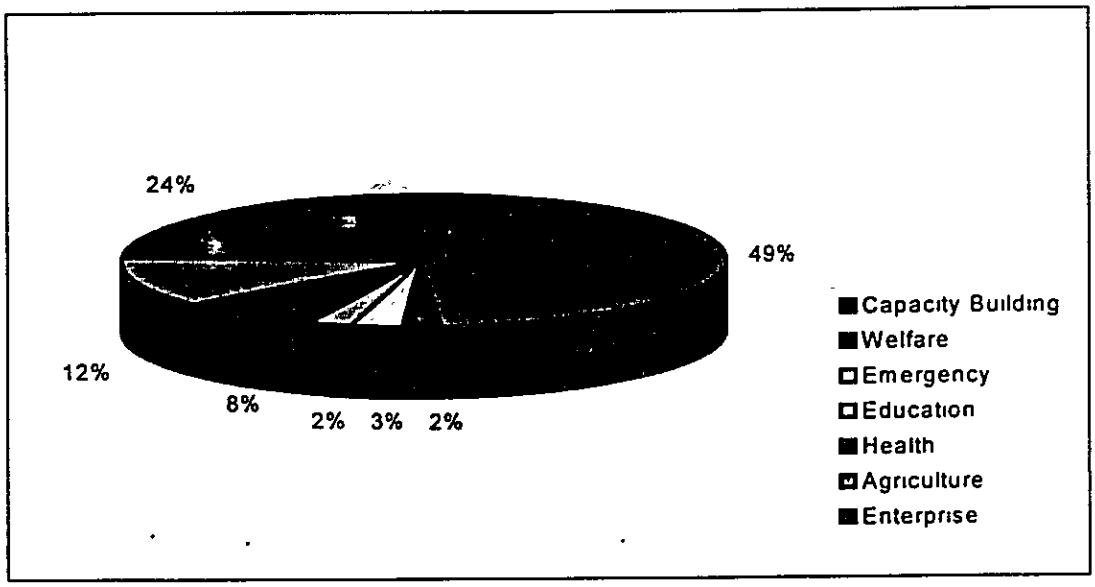


FIGURE 3-6: FINANCIAL COMMITMENTS FOR PROJECTS IN 1995

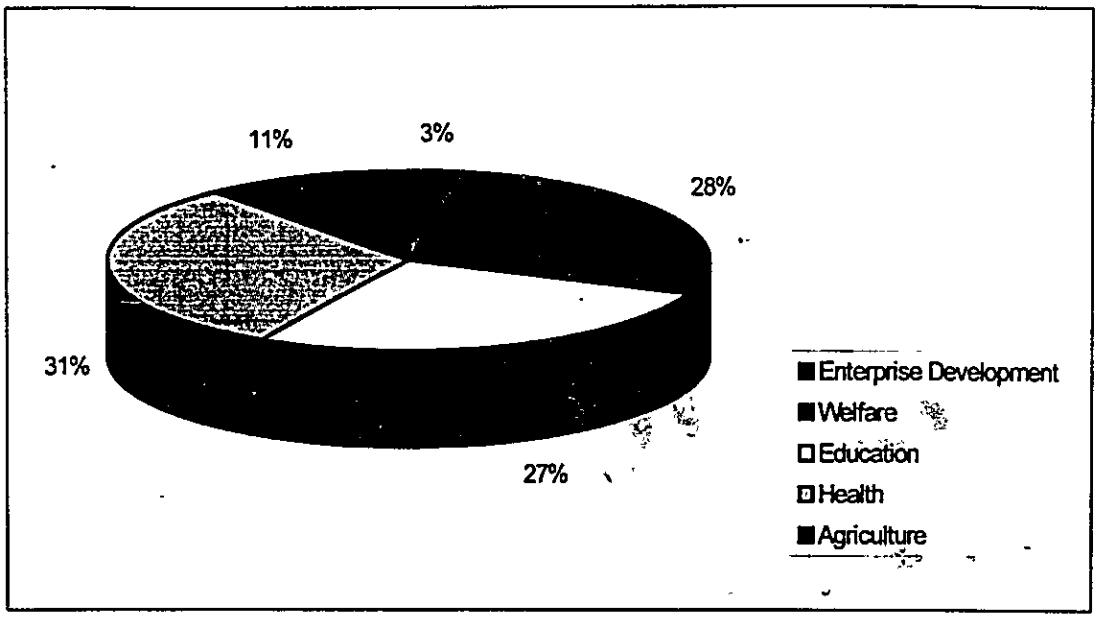


FIGURE 3-7: PARTICIPANTS BY PROGRAMME AREA

A majority of the Resources of CRS are in food assistance from the US Government. The break-up of the allocation by programme areain metric tons is given in Figure 3-8.

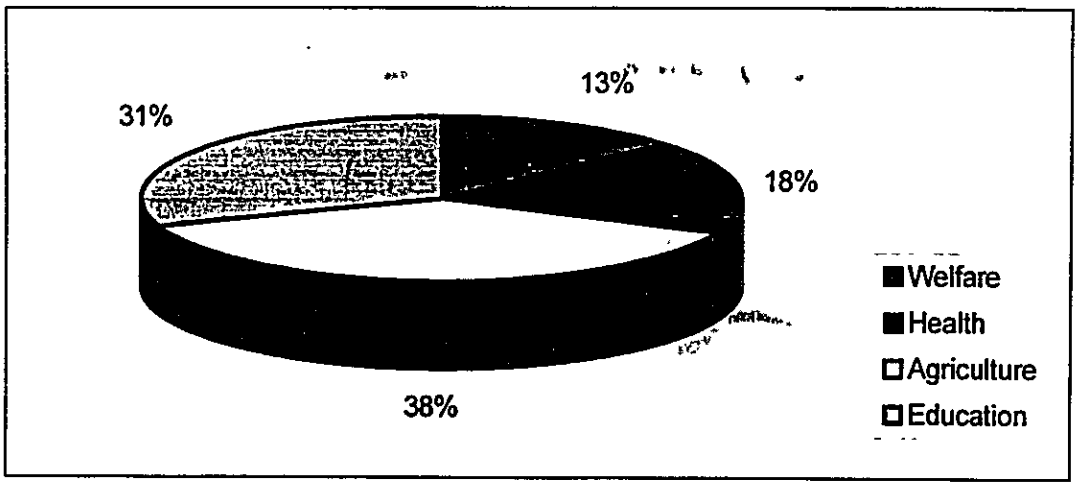


FIGURE 3-8: ALLOCATION OF FOOD BY PROGRAMME AREA

Health Sector Work: Strategic Framework

CRS works according to the strategic framework made for its activities in India. The activities related to health follow from the Sub-goal 1 i.e., improve food utilisation.

The emphasis of the programme is basically on the pregnant and lactating mothers or mothers with children under three. The details of programme interventions and strategic interventions are given below:

Programme Interventions

- Select local women as Village Health Workers with a minimum beneficiary ratio of 1:100, to ensure easy access and better interaction with mothers and train them on programme components. Further, train local birth attendants on safe delivery practices.
- Formation of women's group to create local structure and technical resource
- Periodic reinforcement of health, hygiene and nutrition messages (particularly regarding tetanus and other immunizations, anaemia, breast feeding and diarrhoel management practices) Through bimonthly health educationclassesin the programme communitylocations. Village mothers are divided into smaller groups of 20-25 to better manage health classes.
- Prepare or acquireeffective and user friendly health education suitable to the local culture and needs
- Monthly growth monitoring by Village Health Workers (VHWs) and follow-ups to mal-nourished and growth faltering children.
- Revise and distribute home-based health card to the programme beneficiaries and motivate them to maintain it.
- Revise and implement the health Management Information System for better programme feed back and corrective measures.
- Review and revise the Safe Motherhood and Child Survival (SMCS) manual and develop its local language versions for use by grass root level workers.
- Formation of village health committees to support VHWs to mobilize the communitie in health activities to sustain health impact after the phase out of food support.
- Formation of savings and credit groups to provide women access to credit or income.

Strategic Interventions

- Implement transfer of community based approach from centre based aproach and ensure total eligible beneficiary coverage ina contagious geographical location.
- Implement micro-level targeting criteria to select villages/communities for SMCS outreach services.
- Develop and implement five year phase out plan for Title II (food) support. based on set criteria.
- Establish linkages with other institutions both government and non-government for service delivery like; immunization, micro nutrient supplementation etc., training and other resource needs.
- Conduct staffing need assessment at CRS/CP/OP level and meet the need. This will involve a change in job responsibilities, and orientation and training of current staff and hiring new staff with appropriate skills and experience.
- Access FFW resorces for water and sanitation projects in SMCS communities.

- Increase programme coverage in Uttar Pradesh by identifyig new operating partners and extending programme to new villages with existing partners.

3.2.6 CARE-INDIA

CARE-INDIA is part of the CARE network. CARE is one of the world's largestindependent, international relief and development organisations. It operates in more than 60 countries in Africa, Asia, Latin America, the Middle East and Eastern Europe. The International Secretariat is in Belgium, while the fundraising and managemnet offices are in North America, Europe, Japan and Australia. CARE supports more than 45 million people each year. It has a staff of more than 10,000 with employees from the nations of operations.

CARE-INDIA set up its operations in India 45 years ago. It has established a strong relationship with the Government of India and has implemented a wide range of programmes such as refugee support, drought and disaster relief, dairy and agriculture improvement, income generation, food for work, maternal and child health and Integrated Child Development (ICDS).

Programme Focus

The primary focus of programme efforts since 1950 has been on food distribution and monitoring in accordance with the Government of India and USAID priorities. CARE-INDIA has evolved elaborate systems for food logistics, managment and monitoring.

In 1987, CARE-INDIA began to incorporate technical inputs in health, nutrition and sustainable development to complement food provisioning. These activities included child survival and continuing health education programmes, which emphasised participatory training and community involvement focusedon reducing the risk of infection, malnutrition and death. These community health programmes were implemented in partnership with government functionaries, who were trained as trainers.

CARE-INDIA works in primarily four areas:

- Nutrition and Health
- Small Enterprises Development
- Population and Reproductive Health
- Education (Girl child)

The beneficiaries identified for the development are:

- Pregnant and lactating mothers
- Children less than two years
- Adolescent girl child

CARE-INDIA works in a total of 937 blocks and over 114,000 villages in India with remote, tribal and rural population. A list of programmes/projects (ongoing and proposed) in each state is given as Appendix C .

Operations in India

CARE-INDIA has around 500 employees in all the offices in India. Inspite of the large and wide spread, the decision-making is decentralised and responsive to local needs.

Counterparts

The primary CPs are the governments; at the central level, state level, district level and block level. CARE-INDIA works along with all the major ministries active in the development sector.

The second set of CPs are the NGOs with whom CARE-INDIA has associated with in the recent years.

CARE-INDIA also undertakes Research and Documentation in its areas of operations through professional organisations like Foundation for Research in Health System. Ahmedabad; Mahila Chetna Manch, Orissa; and CINI, Calcutta.

Monitoring of Activities

Monitoring is done both, internally and externally. A full physical count for the food supplies is made at the block level to find out whether it is used properly or not. A sample of three per cent villages is taken and visited randomly for the check. The monitoring has now changed from centre-based to population -based. This means that every body in the eligible population is included in the sample rather than the persons registered with the centre.

The Internal Audit is done by CARE-USA and the external audit is done by Arthur Andersen.

Health and Nutrition Five Year Plan (July 1995-June 2000)

The total cash budget for the programme is USD 27.717,238 spread over five years. The Financial Year (FY) 1996 cash budget totals USD 5,111,558. In addition, the in-kind contributions total USD 122,545,843 and include USD 52,543982 in corn soya blend and vegetable oil, USD 17,150,418 in Ocean freight, USD 20,058,568 in Government of India (GOI) material and equipment and USD 32,792,875 in GOI personnel. The programme has secured cash funds for FY1996 from the GOI (USD 2,396,606), from monetised oil proceeds (USD 1,806,515), US Farm Bill 202e Grant (USD546,400), proceeds from empty container sales (USD 180,540), British Overseas development Fund (USD 38,366) and World Food Programme (USD 43,021).

3.2.7 Christian Children's Fund (CCF)

The predecessor organisation of CCF was first set up in mainland China in 1939, then called Chinese Children Fund by christian missionaries. The missionaries appealed to benefactors in USA. After World War II, the focus shifted from mainlan China to rest of Asia. when India also became a point of focus. With the head office at Richmond, Virginia; CCF has operations in about 40 countries with associate-organisations in most of these countries.

Development Focus

The focus for the health related activities is mainly in three areas, i.e.: Immunization. Primary Health and Nutrition Support. The development work is undertaken with respect to a child beneficiary. The child becomes a symbal of development unit and monitoring of efforts by CCF. Although the child is the unit, the entire community is benefitted. The most important beneficiaries include:

- Pregnant and Lactating mothers
- Child under five years

- Malnourished

The development work for the child thus starts before the time of birth and continues till they have been educated to eighth standard. The programme combines literacy and education for uplifting the children who are poor and malnourished.

The states of focus are Bihar, Rajasthan, Uttar pradesh, Orissa and Madhya Pradesh. CCF has two offices in India, in Bangalore and Delhi. The Bangalore office coordinates work in southern and eastern India. A total of 130 projects are going on, 77 in north and 53 in south and east. A total of 75,000 children (families) are benefitting from CCF's work.

Monitoring

Monitoring in CCF projects is mostly internal, with no external auditors, unlike CRS and CARE. The main tools for monitoring is the PMT (Project Management Tools) system. This system uses regular reporting by the village level workers of the NGO to the project incharge. The system has a baseline and regular updation components regarding the status of beneficiary families. These reports are also reviewed by CCF.

3.2.8 NGOs at State and District Level

At the State and district level, there are numerous voluntary agencies working in the health and family welfare sector. Besides the state level Voluntary Health Association (VHAs) which are a constituent of VHAI, there are other NGOs which have done commendable work in the areas of information, education and communication, awareness generation, mother and child health activities, malnutrition and hunger. The following is a list of voluntary organisation in different States, working in the areas of health and family welfare.

- Society for Participatory Research in Asia (PRIA), New Delhi
- Church's Auxiliary for Social Action (CASA), New Delhi
- Voluntary Action Network, India (VANI), New Delhi
- Child In Need Institute (CINI), Calcutta
- Indian Health Organisation (Bombay)
- Gujarat AIDS Awareness and Prevention Unit (Ahmedabad)
- Child in Need Institute (Calcutta)
- Institute of Rural Health Management (Jaipur)
- Voluntary Health Services (Madras)

4. NATIONAL PROGRAMMES IN HEALTH AND FAMILY WELFARE

4.1 NATIONAL HEALTH PROGRAMMES

The Centre has taken concerted measures to combat communicable, non-communicable and other major diseases. For this purpose, several National Programmes are directly run by the Ministry of Health and Family Welfare, which have a bearing in the reduction of mortality and morbidity and also have a salutary effect on efforts to improve the quality of life of the common person. These programmes also reinforce the delivery of primary, secondary and tertiary health care throughout the country.

4.1.1 National Malaria Eradication Programme

Genesis and Objectives

In April 1953, Government of India launched National Malaria Control Programme (NMCP) in collaboration with bilateral and international agencies. The objective of NMCP was to reduce malaria morbidity in the country to such a low level that the disease would cease to be a major public health problem. The encouraging results obtained during NMCP prompted the GOI to switch the strategy from control of malaria to eradication in 1958 under National Malaria Eradication Programme (NMEP). The broad objective of the programme was to reduce malaria related deaths to less than 0.5 Annual Parasite Incidence per thousand (API) by 2,000 AD and maintaining the industrial and green revolutions. It is the world's biggest health programme against a single communicable disease and continues to be the country's most comprehensive and multifaceted public health activity.

Control Strategy

The various efforts undertaken under this include regular rounds of spraying, decentralizing existing malaria laboratories to the PHCs, eliciting public co-operation through voluntary agencies, undertaking an urban malaria scheme, and continuing research to eliminate the malaria causing parasite, *Plasmodium falciparum*. The strategy undertaken to control and finally eradicate the disease is multifold, consisting of both preventive and curative measures, as given below.

Case Detection and Prompt Treatment:

Curative measures, that is, case detection and prompt treatment, are given great emphasis to reduce the parasitic load in the community. Blood slides are collected through active and passive agencies and preventive treatment is given. All positive cases are given appropriate treatment.

Vector Control:

Selective and judicious insecticidal spray is carried out in the areas registering two and more than two API in the preceding three years. In other areas only focal spray is done. During 1995-96, a population of 158.34 million was protected by insecticidal spraying.

Anti Larval Measure:

In the urban areas anti-larval measures are used under which recurrent weekly larviciding with temphos, Fenthion, MLO and Paris green etc. is done.

Malariogenic Stratification:

To prioritise endemic areas and judicious use of resources, stratification is being done in a phased manner. It has been completed in four states namely, Karnataka, Maharashtra, Gujarat and Rajasthan and is in progress in Andhra Pradesh and Madhya Pradesh. Areas under strata 5, 4, 3 and problematic villages in stratum 2 are selected for spraying. Entomological assessment for susceptibility and for selecting appropriate insecticide is done. Malaria Action Programme (MAP) has been launched from 1995. The high risk areas will be identified on the certain criterion like deaths due to malaria, slide positivity rate (SPR).

Health Education:

To increase awareness of the community and seek their active participation and co-operation for implementing control activities, health education is being undertaken.

Special Schemes

Malaria in Urban Areas:

Around 10 percent of the total malaria cases in the country are reported from urban areas. Recognising the need of the urban areas, the Urban Malaria Scheme (UMS) was launched in 1971 with the objective to control malaria by reducing the vector population in the urban areas through recurrent anti-larval measures and detection, and treatment of cases through the existing health services.

In this scheme, all the towns having a population more than 40,000 are to be covered and the scheme was sanctioned for 181 towns distributed in 17 States and two UTs. It has so far been implemented in 131 towns. During 1993 about 0.23 million malaria cases have been reported from these towns and 60 towns (46 percent) showed a decrease in the number of malaria cases as compared to 1992. During 1994, 54 towns showed a decrease in malaria cases by 51 percent as compared to period of 1993.

Malaria in Tribal Areas:

In view of the persistent transmission of malaria in the north-eastern States which are almost entirely inhabited by tribal population, a scheme was initiated in December, 1994 to provide 100 percent central assistance for the control of malaria.

In addition to the North Eastern states, the 44.5 million tribal population in the 7 States of Andhra Pradesh, Madhya Pradesh, Gujarat, Maharashtra, Bihar, Rajasthan and Orissa contribute 30 percent of total malaria cases and 50 percent of *P falciparum* cases of the country. A proposal to intensify malaria control measures through World Bank assistance for these areas is under consideration.

Implementation and Delivery System, and Funding Pattern

The Primary Health Care Workers in rural areas and the personnel in Urban Malaria Scheme are responsible for implementation of the programme. Drug Distribution Centres (DDCs) and Fever Treatment Depots (FTDs) serve as important sources for treatment of fever cases in specific situations. The various activities are monitored through the HMIS.

This is a partially centrally sponsored scheme, where the centre provides 50 percent assistance for drugs and DDT and the rest is by state funds.

Performance

The programme made spectacular progress till 1965 when only 0.099 million cases were recorded in the country. Thereafter malaria resurged and in 1976 the number of malaria cases reported was as high as 6.47 million cases which necessitated the revision in strategy. Hence the modified plan of Operation (MPO) was launched in 1977, with the aim of effective control of malaria and elimination of mortality due to malaria.

With the implementation of MPO, the total malaria cases came down from 6.47 million in 1976 to 2.18 million cases in 1984. The malaria situation since then is contained around 2 million cases. Table 3.5 gives the trend of malaria cases, Plasmodium falciparum cases and death due to malaria during the recent past.

TABLE 4-1- TREND OF MALARIA CASES, PLASMODIUM FALCIPARUM CASES AND DEATH DUE TO MALARIA DURING THE RECENT PAST

Year	BSE in million	ABER	+ve cases in million	API	SPR	Pf	SFR	Deaths
1976	55.98	9.53	6.47	11.251	1.55	0.75	1.35	59
1984	66.36	9.34	2.18	3.08	3.29	0.65	0.99	247
1985	69.13	9.38	1.86	8.52	2.74	0.54	0.80	213
1986	67.69	0.18	1.79	2.43	2.65	0.64	0.94	323
1987	72.53	4.63	1.66	2.21	2.27	0.62	0.85	188
1988	75.70	9.87	1.85	2.42	2.45	0.68	0.91	209
1989	72.07	9.37	2.05	2.66	2.84	0.76	1.05	269
1990	74.42	9.49	2.02	2.57	2.71	0.75	1.01	353
1991	75.16	9.30	2.12	2.62	2.82	0.92	1.22	421
1992	79.01	9.59	2.13	2.58	2.69	0.88	1.11	422
1993	77.40	9.30	2.20	2.64	2.84	0.85	1.10	354
1994	82.18	9.54	2.51	2.91	3.06	0.99	1.20	1122
1995	81.16	9.23	2.80	3.19	3.45	1.09	1.34	1061

BSE Blood Slide Examination
ABER Annual Blood Examination Rate - percent population screened for parasite
API Annual Parasite Incidence per thousand
SPR Slide Positivity Rate (percent)
SFR Slide Falciparum Rate (percent)
Pf Plasmodium falciparum

Shortcomings

The shortcoming of the programme is in its implementation, especially due to resource constraint, inadequate surveillance due to inadequate manpower, reactivization of FTDs and DDCs, unreliable statistics, lack of health education and community participation. irregular and inadequate drug supply.

4.1.2 National Filaria Control Programme

Genesis and Objectives

Filariasis is a major public health problem in many states of the country and about 420 million people are estimated to be living in known endemic areas of which about 109 million are in

urban areas. *Wucheria bancrofti* is the most prevalent cause of filariasis affecting 40 percent of India's population. The incidence of this disease has increased during recent years in both endemic and non-endemic areas characterised by poor drainage facilities and collection of stagnant water.

The National Filaria Control Programme was launched in 1955, through which about 47 million urban population is being protected. The major objectives include delimiting the problem and reducing the disease rate and micro-filaria count.

Strategy

Diagnostic and immuno-diagnostic methods include a microscopic examination of blood smears, extensive use of diethyl carbamazine and use of larvicides such as MLA, temphos, pyrosene oil and fenthion. Under the programme following measures are undertaken.

(i) Delimitation of the problem in hitherto unsurveyed areas.

(ii) Control in urban areas thorough recurrent anti-larval measures and anti parasitic measures by 206 control units and 198 filariasis clinics giving treatment with diethyl carbamizine to clinical cases and microfilaria carriers.

During the 8th Plan it has been envisaged to distribute anti filarial drugs through primary health care delivery system in the rural areas of endemic states.

Performance

Number of microfilaria (m.f.) carriers and disease cases detected during the last 3 years by the control units and filaria clinics are as follows:

TABLE 4-2 - NUMBER OF MICROFILARIA (M.F.) CARRIERS AND DISEASE CASES DETECTED

Year	No. of Examined	No. of +ve for MF	Mf Rate (%)	No. of +ve for disease	Disease Rate (%)
1992	2,736,744	50,492	1.4	40,262	1.10
1993	3,790,804	45,876	1.2	37,720	0.99
1994	3,960,013	47,427	1.2	35,219	0.89

During the past three years, a slight increase in filariometric indices has been seen in the states of Andhra Pradesh, Assam, Bihar, Goa, Kerala, Madhya Pradesh, Maharashtra, Orissa and West Bengal.

Shortcomings

The shortcoming of the programme is in its lack of focus on community involvement, lack of research in the socio-cultural and economic factors which influence the causation, transmission and control of filariasis, and finally lack of coordinated and integrated approach.

4.1.3 National Leprosy Eradication Programme

Genesis and Objectives

Leprosy has always attracted high degree of social stigma. There are many superstitions around this disease even now in the various parts of the country. Leprosy occurs in significant numbers in about 80 countries of Asia, Africa and Latin America. At one time, there were 10 to 12 million leprosy cases in the world. Now with effective treatment and relentless war against

leprosy, there are still 1.8 million cases left in the world. Of these, 55 percent to 60 percent cases are in India. Leprosy occurs in substantial numbers in 9 out of 11 countries of the south-east Asia Region. Next to India are Indonesia, Denmark, Bangladesh and Nepal who have leprosy cases in substantial numbers.

Leprosy occurs in 11 states and UTs. However, the distribution of cases is uneven. Very high leprosy endemic areas are south-eastern and central regions viz., states of Tamil Nadu, Andhra Pradesh, Orissa, West Bengal, Bihar, Madhya Pradesh, Uttar Pradesh, Maharashtra and Karnataka. These states account for over 90 percent of cases.

National Leprosy Control Programme has been in operation since 1955, but it received high priority only after 1980. The programme was redesignated as National Leprosy Eradication Programme (NLEP) in 1982-83 on the recommendations of an expert committee. The programme is goal specific and target oriented with an ultimate objective to arrest the disease in all known cases of leprosy by 2,000 AD. Its objectives are to reduce the load of infection by treating all infectious cases and also to reduce the prevalence of leprosy to less than 1/10,000. The following table gives the time frame for the elimination goal:

TABLE 4-3 - TIME FRAME FOR ELIMINATION GOAL

Year (Beginning)	Regd. Cases	New Cases	Discharge	Balance Cases
1995	740	+320	-578	482
1996	482	+280	-480	282
1997	282	+240	-400	122
1998	122	+220	-270	72
1999	72	+150	-162	60
2000	60	+100	-120	40

Thus, if the programme is implemented as per the planned strategy and additional resources are made available there would remain just over 72,000 leprosy cases by the end of 1998 and not more than 40,000 cases at the end of 2,000 AD. This would also bring in an effective break in disease transmission, thus achieving the goal of elimination of leprosy (10,000) as set by WHO for the year 2,000 AD.

The treatment of leprosy cases with a number of drugs instead of one drug has been found highly effective. The government has recognised the advantage of multi drug treatment (MDT), over traditional drug therapy. All 201 endemic districts have been covered on MDT in addition to 41 low endemic districts.

Control Strategy

NLEP aims at early detection and regular treatment through a course of MDT, education of patients and medico-social rehabilitation of former patients.

The strategy adopted involves the following steps.

(i) Early detection of leprosy cases and their regular free treatment with MDT, specially in endemic districts, to provide domiciliary treatment through staff trained in leprosy.

(ii) Provide services through mobile leprosy treatment units and primary health care personnel in moderate to low endemic districts.

(iii) Intensive case detection and treatment activities through special surveys.

(iv) Organise health education and special public awareness campaigns for patients, their families and the community.

(v) To provide rehabilitation services to the needy patients.

(vi) Provision for leprosy ulcer and disabilities.

(vii) Orientation training of PHC workers.

(viii) Slow integration of leprosy services with PHC.

Implementation and Delivery System, and Funding Pattern

A five tier organisational structure was created for the administration of the programme. This is described below.

1. The National Leprosy Eradication Commission (NLEC) functions as the policy making body for the guidance and surveillance of the programme.
2. National Leprosy Eradication Board (NLEB) is responsible for the implementation of the plan and policies laid down by NLEC.
3. An officer of the rank of Deputy Director General (DDG) of Health Services is the Director of the programme and is basically responsible for planning, programming, organising and implementing as per the policy decision of NLEC and under the direction of NLEB.
4. The Programme Director is assisted by senior technical officers in planning, guiding and monitoring the programme. The Central Leprosy Teaching and Research Institute, Chengalpattu, the three Regional Leprosy Training and Research Institutes at Aska, Raipur and Gouripur assist the DDG in manpower development and operational research.
5. The Additional/Joint Deputy Director of Health Services at the state level is the state leprosy officer. He performs the same functions at the state as the DDG does at the centre.

Over the years a separate cadre of health workers have been trained to provide anti-leprosy services. They are assisted by primary health care workers. Besides, about 285 voluntary organisations are supplementing the governmental efforts in the fight against leprosy. These organisations operate under the direction of NLEB. Until March 1993, 758 leprosy control units, 900 urban leprosy centres, 191 temporary hospitalisation wards, 285 district leprosy units, 6,097 Survey, Education and Treatment (SET) centres, 49 leprosy training centres and 39 sample survey-cum-assessment units have been established under the programme all over the country.

This is a 100 percent centrally sponsored programme, being funded both as a plan and a non plan scheme.

Performance

With the extension of MDT services under the programme, a large number of leprosy cases are being discharged as disease cured. So far the total number of cases cured, including those cured with MDT, is about 9.0 million. Active caseload has come down to 0.61 million cases at the end of March, 1996.

There has also been a definite shift in the disease pattern and the type of cases. In states, where MDT has been extended to leprosy cases in the endemic districts for over 5 years, a substantial number of cases have one or two patches only. Multibacillary cases have come down to less than 10 percent. Smear positive cases are now rare in these districts. Over 70 percent of the current caseload is now in the states of Uttar Pradesh, Madhya Pradesh, Bihar, Orissa and West Bengal.

The endemicity of these states have also reduced substantially, with only 3 States (Orissa, West Bengal and Bihar) have PR more than 2/1,000 population in 1994 (as against 12 States showing endemicity of above 5 in 1981). This impact is due to increased MDT coverage. The progress of MDT is summarised in Table 4.4.

TABLE 4-4 - PROGRESS OF MDT

Sl. No.	Indicators	Number
1.	Geographical coverage	100%
2.	Cases related under the programme	9.0 m
3.	Cases on record (Current)	0.61 m
4.	Cases currently on MDT	92%

On an average 0.4 million new cases are being detected annually. The number of cases discharged as cured is increasing progressively over the years. For the first time during the year 1987, annual case discharge was 10 percent more than the annual new case detection. This percentage increased to 25 percent in 1988, 38 percent in 1989, over 90 percent in 1990 and 1991 and again over 90 percent in 1992. The discharge rate was again 75 percent more in 1993 and 1994. During the year 1994-95, the number of discharged cases was 0.63 million as against new case detection of less than 0.43 million cases. and during 1995-96, the figures were 0.47 million and 0.35 million respectively.

Shortcomings

The major constraints being faced in the programme are lack of motivation at all the levels. underdeveloped manpower, inadequate funds and facilities, lack of desired emphasis and priority to health education, lack of operations research in leprosy to solve problems arising in the field and lack of effective monitoring system at all levels.

4.1.4 National Tuberculosis Control Programme

Genesis and Objectives

In India 14, million people are suffering from active tuberculosis of which 3-3.5 million are highly infectious. About 0.5 million die of the disease every year. An estimated 2-2.5 million cases are added every year. Thus, it is a major health problem in India, affecting the rural as well as urban population.

The National Tuberculosis Control Programme (NTBCP) was formulated in 1962 to diagnose. treat and provide preventive services to the bulk of TB patients. The short term objective of the programme is to diagnose and treat patients on domiciliary basis and also give preventive services to the bulk TB patients. The long term objective is to reduce the problem gradually till it ceases to be a public health problem. This programme is integrated with General Health Services.

Control Strategy

Consequent to a National Review of the programme in 1992, a revised strategy for Tuberculosis Control has been evolved, based on its finds and recommendations. The salient features of this strategy are listed below.

(i) Achieve at least 85 percent cure rate of infectious cases through supervised short course chemotherapy involving peripheral health functionary.

(ii) Augment case finding activities through quality sputum microscopy to detect at least 70 percent of estimated cases, and

(iii) NGO Involvement, IEC, improved MIS and Operational Research.

Regular training (average 8 in a year) and one International Training Course are conducted by National Tuberculosis Institute (NTI), Bangalore for medical and para-medical personnel. Training has also been conducted in 15 Revised NTCP project sites with World Bank assistance under PPF.

Implementation and Delivery System, and Funding Pattern

In the district, the programme is implemented through the District Tuberculosis Centre (DTC) and a number of Peripheral Health Institutions (PHIs). The District Tuberculosis Programme (DTP) is supported by a state level organisation for co-ordination of the tuberculosis activities in the state and supervision of the DTPs. The programme provides free services to the community.

At present out of 496 districts in the country, DTC have been established in 446 districts. A team of medical and para-medical personnel duly trained at NTI, are available at these centres. Besides the DTCs, 330 TB Clinics, 16 TB Training and Demonstration Centres and about 47,600 TB beds are functioning in the country. NTI Bangalore, established in 1959, is monitoring the NTCB.

The programme is run on 50:50 sharing basis between Centre and States in terms of drugs and logistics. Almost the entire central and state plan contribution is in the form of drugs and supplies. Under the programme, Voluntary Organisations are also provided anti-TB drugs (100 percent).

TABLE 4-5 - CENTRAL BUDGET AND EXPENDITURE FOR NTBCP

(Rs. Million)

Year	Budgetary Provision	Actual Expenditure
1992-93	290.00	270.10
1993-94	375.00	171.92
1994-95	460.00	321.51
1995-96	460.00	397.16
1996-97	650.00	

Monitoring and Review

Programme data is generated at the Peripheral Health Institutions on a monthly basis. Quarterly reports are compiled in the districts and one copy is sent to the state level and the other to NTI. NTI furnishes quarterly and annual reports to the Central TB Division and sends feedback to the district. The feed back to the state level is also sent from the Central division. Districts also send monthly information on case-detection, sputum examination and new sputum positive cases under 20 Point Programme directly to the Central TB Division.

The programme is periodically reviewed by the Minister of Health and Family Welfare (every quarter) and the Secretary (Health) and Director General of Health Services (every month) for appropriate action. Procurement of Anti TB drugs and expenditure is reviewed monthly.

Annual Review Meetings of the Programme Officers of all States and Union Territories are held regularly.

International Assistance

In October 1994 and February 1995, an IDA Preparatory Mission reviewed and commended the progress and achievements made in implementing the Pilot Phase of Revised NTBCP. With their assistance, the technical, laboratory and operational guidelines were finalised. Encouraged by the performance of Pilot Phase-I the Government of India decided to extend the Revised Strategy to 15 project sites with one district each in Gujarat, Kerala, Himachal Pradesh, West Bengal and Bihar, Hyderabad, Bangalore, Jaipur, Lucknow, Bhopal and Pune covering a total population of 13.85 million. World Bank assistance as Project Preparation Facility has been provided to the extent of US $ 1.996 million for this activity.

The World Bank Mission visited India in the month of January-February, 1996. In Phase-III, it is proposed to extend the Revised Strategy to 102 districts over a period of 5 years with World Bank assistance. In the year 1996-97 itself, 39 districts with a population of 124.74 million will be covered.

ODA has reached an agreement with the Government of India for support to the NTBCP to the extent of £ 900,600. The area of support includes strengthening of Central TB Division. Training activities and implementation of the Revised NTBCP in Medak district of Andhra Pradesh and Moti Nagar and Nehru Nagar districts of Delhi.

DANIDA assistance has been sought to implement the Revised Strategy of NTBCP in the State of Orissa.

The Swedish International Development Agency (SIDA) has been supporting the case finding and treatment activities of the programme by supplying various drugs and equipment since 1979 to the DTCs. It is also helping the NTI Bangalore in many ways.

The WHO has been assisting the NTI Bangalore, since its inception in 1959 and TB Research Centre, Madras since 1956 by providing short term consultants, fellowships and essential supplies and equipment. They are also providing assistance to these institutions for conducting seminars, orientation programmes, refresher courses etc.

<u>Performance</u>

The National TB Control Programme has been accorded high priority by the Government. With the inclusion of NTP in the 20-point programme, a thrust has been given for the expansion of the essential activities under the programme. There has been considerable increase in the budgetary allocation to the programme. From Rs. 18 million in 1981, the outlay has been increased to Rs. 500 million in 1994-95. Short Course Chemotherapy containing more effective drugs is being introduced in this country in a phased manner. So far 292 districts have been covered.

TABLE 4-6 - TARGETS AND ACHIEVEMENTS OF NTBCP

	Sputum Examination	New TB Cases Detection
1993-94		
Targets	34,00,000	18,00,000
Achievements	24,43,579	13,30,557
1994-95		
Targets	34,00,000	19,00,000
Achievements	22,41,379	12,49,139
1995-96	**Targets ***	**Achievements**
New TB Cases	12,70,000	9,97,631
New Sputum Smear Positive Cases	3,81,000	1,26,288
Sputum Examination	39,99,301	19,86,458

* The targets have been revised in light of the Revised Strategy with emphasis on diagnosing sputum positive cases and achieving cure in patients put on treatment.

In 1993 the Revised Strategy was launched in five project sites viz., Bombay, Delhi, Calcutta, Bangalore and Mehsana district of Gujarat to cover a total population of 2.35 million. The initial results show a sputum conversion of over 85 percent and a cure rate of over 80 percent. Thereafter, the project was extended with World Bank assistance.

The Revised Programme is proposed to be extended in a phased manner throughout the country during the Ninth Plan period.

Shortcomings

Several problems in the area of implementation, such as lack of financial resources, existence of different administrative controls and the apathetic attitude of medical personnel tend to hinder the progress of the programme. Poor development of health education activities on TB and lack of trained manpower at various levels also form major constraints.

4.1.5 National AIDS Control Programme

Genesis and Objectives

AIDS caused by the Human Immunodeficiency Virus (HIV), has become a global epidemic over the past decade. WHO estimates that so far about 18.5 million people have been infected with HIV. Despite extensive bio-medical research, the few options available for treating AIDS remain expensive and of limited effectiveness. There is no cure available at present. Hence, presently, the only effective way to deal with this epidemic is through prevention.

India too, is a victim of the epidemic. As on 30th November 1995, 2,097 AIDS cases were reported in India. The Government initiated efforts to control and prevent AIDS in India in 1985 with pilot screening of high risk populations. The National AIDS Control Programme (NACP) was launched in 1987. In 1991 a strategic plan for prevention and control was developed. Its implementation began in 1992, with support from the World Bank, WHO, and other international agencies. The Plan's objectives are in congruence with the Global AIDS Strategy of the World Health Assembly and the Economic and Social Council of the United Nations. The objectives of the global strategy are as follows.

- To prevent infection with HIV
- To reduce the personal and social impact
- to mobilise and unify national and international efforts against AIDS.

The overall objective of NACP is to arrest the spread of HIV/AIDS infections in the country with a view to reducing the future morbidity, mortality and infection of AIDS.

Control Strategy

Eight Strategies have been identified to achieve the objectives of the Prevention and Control Programme; These are outlined below.

Strengthening Programme Management Capabilities

National AIDS Control Organization (NACO) has been established as a separate wing under the Department of Health, to implement the programme at the national level. It is primarily involved in planning, consulting, implementing and monitoring the various activities under the project through the AIDS control cells at the State/UT level. The programme is being implemented as a Centrally Sponsored Scheme through all the State/Union Territories, with 100 percent Central assistance. Any financial and administrative powers beyond the ambit of NACO are vested in the National AIDS Control Board, chaired by the Secretary for Health. Programme management structures at the state level are being developed.

Surveillance and Research

In order to monitor trends and progress, a national HIV sentinel surveillance system has been established. The first two rounds of surveillance took place in 1993-94, six months apart. Attempts have also been made to improve the diagnosis and subsequent management of AIDS cases. A national training programme has been established to train physicians including those working at primary care level.

Strengthening of Information, Education and Communication

Since there is no cure for AIDS as of now, the project seeks to carry out intensive public awareness and community support campaigns through mass media and sustained dissemination of information and health education about HIV and AIDS, to all level and categories of personnel.

Controlling Sexually Transmitted Diseases

One of the pre-dominant modes of transmission of HIV infection is through sexual contact. The project seeks to take up activities to strengthen the clinical services and case management activities in STD centres in 97 medical colleges and 275 district level STD clinics.

Prevention of Transmission through Blood and Blood Products

In 1989, a study of blood banks in India showed that there was an overall shortage of blood and that testing of donated blood for HIV and Hepatitis B was limited and erratic. The project seeks to modernise the blood banks, to establish Zonal Blood Testing facilities to screen for HIV and Hepatitis B, and to recruit and train staff to an adequate level. With this end in view, all the 715 Blood Banks in the public sector are being strengthened. 31 Blood Component Separation centres are being set up to promote rational use of blood.

Condom Programming

An important way of preventing the transmission of HIV during sexual intercourse is the use of a good quality condom. A programme has been initiated by the government to ensure supply of good quality condoms.

Targeted Interventions

Although HIV is now being detected in the general population, it still remains a much greater problem for certain groups such as injecting drug users, commercial sex workers and their clients. Targeted interventions focus on particular groups and offer an integrated set of interventions such as clinical services, condom provision and IEC to these specific groups. Several such interventions have been piloted.

Reduction of Impact

The NACP is concerned not just with the physiological aspect of the problem, but also the psychological and social aspects. Strategies to reduce the impact of AIDS include training of counsellors, training of medical and para-medical staff in AIDS case management, and developing a model for community based care.

A critical element envisaged for the success of this programme is inter-sectoral collaboration throughout the government and within the private and voluntary sectors. An extensive network of links with 8 ministries has been established within the government. This has enabled NACO to collaborate effectively with other ministries to reach different sectors of society such as youth and women. NACO has also established relationships with multilateral and bilateral donor agencies, NGOs and the corporate sector.

Special Schemes

USAID APAC Project: The Scheme for Prevention and Control of AIDS (APAC) is being implemented in Tamil Nadu by a Non-Governmental Organization named Voluntary Health Services, Madras. This project is getting 100 percent financial support from USAID. The Government of India's contribution is in the form of condom distribution in the State through Family Welfare Department. The assistance from USAID to the Voluntary Health Services, Madras is passed through Government of India budgets.

Implementation and Delivery System, and Funding Pattern

The project seeks to strengthen the institutional capabilities at the State/UT level for monitoring the development of HIV and AIDS epidemic and planning and programming interventions to control such epidemic. 150 Zonal Blood Testing Centres and 62 Surveillance Centres have been set up where blood testing facilities for HIV are available. Linkages have been provided throughout the country. In addition to this, 9 HIV referral centres have also been set up. An exhaustive plan has been drawn to train medical officers down the district and taluk levels in diagnostic skill and clinical management of HIV/AIDS cases. About. 3,900 core trainers have already been trained and with the help of these core trainers, the States/UTs are training their medical officers of district hospitals and PHCs.

NACP was launched at an estimated cost of Rs. 2,226 million during the 8th Plan with assistance from the World Bank to the tune of $ 84 million and another $ 15 million in the form of technical assistance from WHO. Another scheme for Rs. 452.20 million was prepared for strengthening the Blood Banking System in the country. This scheme is now integrated with the

scheme for Prevention and Control of AIDS in India being implemented with World Bank Credit.

Presently, the bulk of funding for NACP is from donors, chiefly the World Bank. World Bank funding is budgetary. Bilateral and WHO funding is usually extra-budgetary; one exception is budgetary support of $ 10 million by USAID APAC project.

In 1996-97 budget provision for NACP is Rs 1410 million, in which World Bank contribution is Rs. 1130 million. USAID's contribution is Rs. 55 million and the GOI contribution is Rs. 225 million.

4.1.6 National Programme for Control of Blindness

Genesis and Objectives

It is estimated that over 80,000 children in India become blind every year, of whom 50 percent die. In view of the existing situation, a National Programme for Control of Blindness (NPCB) was launched in the year 1976 as a 100 percent Centrally Sponsored programme to reduce the prevalence of blindness from 1.4 percent to 0.3 percent by 2000 A.D.

Control Strategy

To achieve this target, the programme proposes to

- set up eye camps,
- establish permanent eye care facilities,
- impart health education,
- persuade more ophthalmologists to undertake cataract operations,
- develop necessary infrastructure through mobile units and PHCs.
- upgrade Medical colleges, district hospitals and block level Primary Health Centres
- establish regional training institutes and Regional Institute of Ophthalmology,
- set up eye banks,
- combat childhood blindness through nutrition education, and
- continue educational activities in the form of fellowships and workshops under WHO

Implementation and Delivery System, and Funding Pattern

Voluntary organisations are playing an important role in this programme. With the success achieved and experience gained through the pilot districts, District Blindness Control Societies are being established throughout the country under the Chairmanship of District Magistrate/District Commissioner. Training of districts Blindness Control Co-ordinators is being carried out in a phased manner. Until about March 1996, 456 DBCs had been established. During 1995-96, grants-in-aid, in instalments, to the extent of Rs. 131.9 million was released to the District Blindness Control Societies.

Consumable items including sutures are procured centrally and are being distributed to states and District Blindness Control Societies. Grants to NGOs are now being released through DBCs to ensure timely payment. Equipment, vehicles, and other supplies are also procured centrally.

The assistance provided to the service components under this programme has been enhanced during 1995-96, with the budget allocation raised from Rs. 400 million during 1994-95 to Rs. 720 million during the current year 1995-96. There is a provision of Rs. 750 million during 1996-97.

TABLE 4-7 - BUDGET ALLOCATED AND EXPENDITURE RECORDED ON NPCB

(Rs. Million)

Year	Budget Allocated	Expenditure Reported
1993-94	250	197.0
1994-95	400	382.6
1995-96	720 (RE 630)	575.1
1996-97	750	-

International Assistance

The following three organisations have been actively involved in assisting the development activities since 1980.

- Danida International Development Agency

  In 1978, an agreement was signed between the Government of India and the Government of Denmark to provide support for the development of services under NPCB, viz., supply of equipment to Mobile Units, PHCs and District Hospitals and covering part of recurring costs. It is involved in the following activities.

  (a) Manpower development;

  (b) Establishment of Management Systems at State level;

  (c) Establishment and development of monitoring and evaluation systems;

  (d) Preparation of Health Education material, teaching and information aids; and

  (e) Training

  During the first phase of Danish Assistance (1978-87), an assistance of Rs. 101.20 million was provided by the agency to supplement the programme. Danish Assistance for Phase-II (1989-94) as envisaged is about Rs. 345.30 million.

- World Health Organization

  WHO is assisting NPCB in organising workshops and seminars at national and state levels and sponsoring fellowships for regional and extra regional countries, professional development of manpower and supply of sophisticated ophthalmic equipment.

- World Bank Assistance

  Apart from the external assistance provided by the above organisations, a World Bank Assisted Cataract Control Project is under implementation since 1994-95. The proposed expenditure of the project is Rs. 5,540 million during the period of 7 years in the states of Andhra Pradesh, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu and Uttar Pradesh. Major inputs of the project are upgrading the ophthalmic service, expanding the coverage in rural and tribal areas, establishment and functioning of DBCs, training of ophthalmic manpower, improving the management information system and creating awareness about the programme in the masses.

Under the World Bank Project, a sum of Rs. 210 million was allocated for the year 1994-95. Assistance of Rs. 486 million was allocated for the year of 1995-96. Assistance of Rs. 610 million is anticipated for the year 1996-97.

Performance

The infrastructure developed so far is given in Table 4-8.

TABLE 4-8 - INFRASTRUCTURE DEVELOPED UNDER NPCB

Infrastructure	Developed/Upgraded so far
State Ophthalmic Cell	19
Medical Colleges	81
District Hospitals	418
DMUs	269
PHCs	5117
Eye Bank (Govt.)	166 (tot)
Eye Bank (Pvt.)	-
DBCS	456
CHC/SDH	-

Performance of cataract operations has gone up. The target for the year 1994-95 was 2.45 million while 2.15 million operations were performed. Targets and achievements are summarised in Table 4.9.

TABLE 4-9 -PERFORMANCE OF CATARACT OPERATIONS

Year	Targets	Achievements
1992-93	2,000,000	80%
1993-94	2,430,000	79%
1994-95	2,450,000	88%
1995-96	2,550,000	86% (up to Feb '96)
1996-97	2,620,000	

4.1.7 Kala Azar Control Programme

Genesis and Objectives

Kala Azar is a serious public health problem in Bihar and West Bengal. After its resurgence in Bihar in the early seventies, the disease spread from the four districts to adjoining areas. Presently, about 30 districts of Bihar and 9 districts of West Bengal are affected by Kala Azar. The increasing trend of the disease is evident from the fact that the total number of cases which were 17,806 with 72 deaths in 1986 rose to a total of 77,102 cases with 1,419 deaths in 1992. However, this trend has been arrested in 1993 with a total number of 45,459 cases with 710 deaths reported. 25,652 cases and 384 deaths during 1994, and 21,884 cases and 274 deaths during 1995, were reported.

In view of the growing problem planned control measures were initiated to contain Kala Azar. Until 1990-91 the assistance for the Kala Azar control was being provided by the Government of India, out of the National Malaria Eradication Programme budget provision. However, specific funds to the tune of Rs. 40.60 million were made available during 1990-91 for control of Kala Azar. When it assumed menacing proportions in 1991, claiming 2,000 lives in Bihar, and putting 45 million people at risk, the Government of India considerably enhanced the inputs to Rs.

153.80 million in 1990-91. During 1992-93, Rs. 200 million were provided against annual plan outlay of Rs. 150 million. During 1993-94, Rs. 186.40 million and during 1994-95, Rs. 57.70 million have been utilised by States as material assistance. In 1995-96, material assistance worth Rs. 31.10 million have been provided to Bihar and West Bengal for Kala Azar control. A budget estimate of Rs. 100 million has been approved during 1995-96.

Control Strategy

The strategy for Kala Azar control broadly includes these major activities:

(i) Interruption of transmission for reducing vector population by undertaking in-door residual insecticidal spray twice annually.

(ii) Early diagnosis and complete treatment of Kala Azar cases.

(iii) Health education for community awareness:

Implementation and Delivery System, and Funding Pattern

To ensure optimum utilisation of available resources district action plan are prepared under which exclusive infrastructure is deployed for the Kala Azar activities. Material and equipment with strict supervision is provided. Monitoring and concurrent and consecutive evaluation regularly carried out.

In view of the financial constraints, Government of India provides the total cost on medicine and insecticides for Kala Azar in Bihar.

Assistance in terms of cash as well as kind has been provided during the initial years. 1993-94 onwards assistance in the form of kind has been given to Bihar and West Bengal. Material assistance included the insecticide DDT, Sodium stibo Gluconate and imported drug Pentamidine Isethionate.

In addition, UNICEF assistance of Rs. 1.60 million has been provided in 1990-91 for Information, Education and Communication activities and orientation of medical professionals.

Performance

As a result of concerted efforts there has been consistent decline in both, the number of cases and deaths. A decline of 43.47 percent in cases and 50.78 percent in deaths due to Kala Azar has been recorded during 1994, as compared to 1993. During 1995, a decline of 14.69 percent and 28.65 percent morbidity and mortality respectively has been recorded as compared to 1994.

Shortcomings

The shortcomings of the programme is in its implementation, especially due to shortage of drugs and hospital beds, lack of monitoring the distribution of drugs at government dispensaries, and blackmarketing of drugs.

4.1.8 Japanese Encephalitis Control

Genesis and Objectives

The disease is caused by a minute virus and manifests as high fever, conclusions, confusion, stiffness of the neck and coma etc. The mortality rate of this disease is very high (30-45 percent)and those who survive, do so with various degrees of neurological complications. This

disease is spread by a mosquito which usually breeds in rice fields and swampy and marshy areas.

Of late, this disease has become a major public health problem and has been reported from 24 States/UTs. Andhra Pradesh, West Bengal, Assam, Tamil Nadu, Bihar and Uttar Pradesh report maximum number of deaths. There were a total of 4071 cases with 1530 deaths reported in 1991, 2432 cases with 888 deaths in 1992. In 1993, 2291 cases and 923 deaths and in 1994, 1243 cases and 640 deaths were reported. In 1995 (up to Dec.) 2027 cases and 622 deaths were reported. Efforts are being made by the government to reduce the incidence of this disease.

Control Strategy

Major activities to control Japanese Encephalitis include:

(i) Care of the patient;

(ii) Development of a safe and standard indigenous vaccine;

(iii) Sentinel surveillance including clinical surveillance of suspected cases;

(iv) Studies to identify the high risk groups by measuring the blood level of anti bodies;

(v) Epidemiological monitoring of the disease for effective implementation of prevention and control strategies.

Funding Pattern

No specific budget for Japanese Encephalitis has been approved. Assistance in terms of insecticides are being supplied to effected States out of NMEP supply as and when required.

Shortcomings

Since there are no resources dedicated exclusively to the control of this disease, it lacks focused, coordinated and integrated approach.

4.1.9 National Iodine Deficiency Disorders Control Programme

Genesis and Objectives

Iodine Deficiency Disorders (IDD) affect a large number of the world population. 100-150 micrograms of iodine, an essential micronutrient, is required daily for normal human growth and development. Iodine deficiency starts its impact from development of foetus to all ages of human beings. It results in abortion, stillbirth, mental retardation, deaf-mutism, squint, dwarfism, goitre of all ages, neuromotor defects etc.

More than 1.5 billion population of the world are at the risk of Iodine Deficiency Disorders (IDD), out of which, it is estimated about 167 million people are in India. The survey conducted by the central and state health directorates, ICMR and medical institutes have clearly demonstrated that not even single state/UT is free from the problem of iodine deficiency disorders. It is estimated that 54.4 million population are suffering from endemic goitre and about 8.8 million people are *cntal*/motor handicaps. Sample surveys conducted in 25 states and 4 UTs of the country have revealed that out of 255 districts surveyed so far IDD is a major public health problem in 222 districts.

Realising the magnitude of the problem the Government of India launched a 100 percent centrally assisted National Goitre Control Programme (NGCP) in 1962 with the following objectives:

(i) Identification of goiter endemic areas through surveys to assess the magnitude of Iodine Deficiency Disorders;

(ii) Supply of iodated salt in place of common salt; and

(iii) Assessment of impact of goiter control measures over a period of time through resurveys every 5 years.

In August 1992, the National Goitre Control Programme (NGCP) was renamed as National Iodine Deficiency Disorders Control Programme (NIDDCP) with a view of wide spectrum of Iodine Deficiency Disorders.

Control Strategy

On the recommendations of Central Council of Health in 1984, the Government took policy decision to iodate the entire edible salt in the country by 1992. The programme started in April, 1986 in a phased manner. To date, the annual production of iodated salt in our country is 3.4 million metric tonnes per annum.

Implementation and Delivery System, and Funding Pattern

For effective monitoring and proper implementation of National Iodine Deficiency Disorders Control Programme, all the states/UTs have been advised to set up Iodine Deficiency Disorders Control Cells in the state cells in the state health directorates and central government provides cash grants for this purpose. Presently, 25 states/UTs have established such types of cells. The states of Goa, Himachal Pradesh, Jammu and Kashmir, Punjab, Tamil Nadu, Union Territory of Pondicherry and Lakshadweep have not yet so far set up such IDD Control Cells.

A national reference laboratory for monitoring of iodine deficiency disorders has been set at the bio-chemistry division of Institute of Communicable Diseases, Delhi for training both medical and para-medical personnel and monitoring salt and urinary iodine.

For ensuring the quality control of iodated salt at consumption level, testing kits for on the spot qualitative testing have been developed and are distributed to all District Health Officers in endemic states for awareness.

It has been proposed to set up district level IDD monitoring labs in various states. Tentative allocation of Rs. 75,000 per lab have been provided for this purpose.

It is a purely central plan scheme and the entire expenditure incurred in the production of iodised salt is met by MOHFW.

Performance

The achievements made under the programme from its inception to date are as follows:

(i) The Policy of iodated salt production has been liberalised to private sector. 641 private manufacturers have been licensed by the Salt Commissioner, out of which nearly 532 units have commenced production so far. They have annual production capacity of iodated salt of more than 6 million metric tonnes for the entire country.

(ii) Annual production of iodised salt has been raised from 0.5 million MT in 1986-86 to 3.5 million MT in 1995-96. This is expected to be further raised to 5.00 million MT in near future.

(iii) The Salt Commissioner in consultation with the Ministry of Railways arranges for the transportation of iodated salt from the production centres to the consuming States under priority category 'B', a priority second to that for defence.

(iv) In order to ensure use of only iodated salt, 26 State/UTs have completely banned the salt other than iodised salt while three other States have issued partial ban whereas three States have yet to issue the ban.

(v) Cash grants are provided by the Central Government for conducting surveys/re-surveys of IDD; Health education and Publicity campaign to promote the consumption of iodated salt.

(vi) Realising the importance of iodine deficiency in relation to Human resource Development, NIDDC has been included in 20 Point Programme.

(vii) The standards for iodated salt have been laid down under PFA Act, 1954. These stipulate the fact that iodine content of salt at the production and consumption level should be at least 30 and 15 pm respectively and

(viii) GOI-UNICEF Project 1992-95 is being implemented in 13 selected endemic states for extensive monitoring and IEC activities of National Iodine Deficiency Disorders Control Programme. The activities are to be strengthened in 106 selected districts of the 13 States, including north-eastern regions.

Shortcomings

The success of this programme has been hindered by lack of monitoring and control system, problem being aggravated by environmental factors, inadequate retention of iodine in the iodised salt, lack of co-operation from the states, and lack of motivation in the implementing agencies.

4.1.10 National Cancer Control Programme

Genesis and Objective

Cancer has become a major public health problem due to increasing longevity and changing life style. There are about 1.5 to 2 million cases of cancer in the country at any given point of time. Therefore, to strengthen National Cancer Control Programme which was started in 1975, the programme was revised in 1984 with the objective of:

(i) Primary Prevention: Health education and prevention of intake tobacco.

(ii) Secondary prevention: Early detection of common cancers - cervix, mouth, breast and other tobacco related cancers; and

(iii) Tertiary: This consists of strengthening the existing institutions for comprehensive therapy, surgical, radio and chemotherapy, palliative treatment, i.e., providing free morphine tablets to the users.

Control Strategy

The objectives clearly define the three pronged strategy being adopted for control of this dreaded disease, from primary to secondary and finally, tertiary intervention at various stages of development of the disease. To strengthen the National Cancer Control Programme, the following steps have been taken:

Regional Cancer Centre

The existing Regional Cancer Centres are being strengthened to act as referral centres for complicated and difficult cases at tertiary level. Rs. 5 million is given each year to eight Regional Cancer Centres out of the existing 12.

Development of Oncology Wing

A scheme for development oncology wings in medical colleges has been initiated to fill up the geographical gaps in the detection and treatment of cancer. It is expected that each of the assisted institutions would carry out outreach programmes for early detection and treatment of cancer and that more such institutions would be developed under the scheme in the coming years. Financial assistance has been given to twelve medical colleges to the tune of Rs. 15 million each, during last three years for cobalt equipment and upgradation of institutions.

District Cancer Control Programme

One time assistance of Rs. 1.5 million and a recurring assistance of Rs. 1 million for 4 years are provided to a district under a scheme for district projects for health education, early detection and pain relief measures. State governments/UT administrations have to bring up proposals for assistance under the programme. So far 33 districts have been provided with the required funds.

Voluntary Organisations

A scheme has been initiated for financial assistance of up to Rs. 0.5 million to voluntary organisations for purposes of undertaking health education and early detection activities in cancer.

Cobalt Therapy Installation

Efforts should be made to strengthen the programme further during the coming years. Financial assistance for cobalt therapy units has been increased to Rs. 10 million per unit and other radiotherapy equipment have been brought under the ambit of the scheme. For 1995-96, a sum of Rs. 160 million has been allocated for National Cancer Control Programme for suitably augmenting the treatment facilities in the country. Effective monitoring of the programme, establishment of Cancer Control Boards at the national and state levels should be set up and/or suitably strengthened. During the last three years, financial assistance has been released to 23 medical colleges/hospitals/institutions for installation of cobalt therapy facilities.

Government of India has allocated Rs. 800 million for the Eighth Plan period as against Rs. 193.4 million for the Seventh Plan. As such, more schemes are being launched at the Eighth Plan period under National Cancer Control Programme.

4.1.11 National Mental Health Programme

Genesis and Objective

In order to provide minimum level of specialised services to mentally ill, the National Mental Health Programme (NMHP) was initiated in the seventh plan. The first concentrated effort to formulate a national programme was held in July 1981, when a workshop was held to draft a NMHP for further considerations. It was clearly formulated in 1982. The plan of action was developed in the Seventh Plan period in 1985. The objectives of this programme are:

- Ensure availability and accessibility of minimum mental health care to the most vulnerable and underprivileged sections of the population in the foreseeable future

- Encourage application of mental health knowledge in general health care and development.
- Promote community participation in mental health services development and stimulate effort towards self help in community.

Considering the importance of this programme, it was decided to revamp and revitalise the NMHP in 1995-96. Accordingly, a national workshop was held at Indian Institute of Management, Bangalore in February 1996 under the aegis of WHO and NIMHANS. Bangalore with the health secretaries/administrators of various states and UTs.

Strategy

Since its inception, the efforts of the NMHP have been directed at:

- Sensitisement and involvement in state level programme
- Workshops for mental health professionals
- Workshops for voluntary agencies
- Training programmes in public mental health for programme managers
- State level workshops for the personnel of health directorates and secretariats
- Evaluation of the level of care provided by trained PHC personnel.
- Development of a model District Mental Health Programme
- Training programmes for teachers of basic health workers.
- Preparation of support material in the form of manuals, records, health education materials.
- Training programmes for teachers of undergraduate medical education.
- Workshops for superintendents of mental hospitals and training for the staff of mental hospitals

Recommendations of the national workshop form a basis for future course of action for NMHP. As per its recommendations, the emphasis has been laid on community based approach and reaching the poor and unreached at the district and PHC level.

Implementation and Delivery System

The training programmes to train the members of the District Mental team at the grassroots level have already been initiated in Assam, Rajasthan, Maharashtra, Andhra Pradesh and Tamil Nadu. Rs. 0.3 million each have been made available to Institutes of Mental Health/Medical Colleges located in these states for organising the training programmes. This is in addition to the efforts being made by NIMHANS, Bangalore in this direction.

The MOHFW with the help of WHO appointed two consultants during 1995 to help it implement the National Mental Programme in various states and UTs and also assist in formation of Mental Health Authority at the Centre as well as in various states.

The Central Mental Health Authority constituted in 1992 came into force in April 1993 giving effect to the Mental Health Act 1987. Mental Health Authority have also been constituted in several states, who would have the mandate of developing and regulating mental health services in their respective states.

4.1.12 National Diabetes Control Programme

National Diabetes Control Programme was started on a pilot basis during Seventh Five Year Plan in some of the districts of Tamil Nadu, J&K and Karnataka, but due to paucity of funds in subsequent years this programme could not be expanded further in remaining years. However, a sum of Rs. 2 million was allocated for this programme during 1995-96 which was unfortunately reduced to Rs. 1.2 million at RE stage in the same year. A small expert group consisting eminent diabatologist had met in DGHS and assisted the DDG (NCD) in preparing a PIC note for this purpose. Thereafter, a Steering Committee Meeting consisting 7 eminent diabatologist from various institutions was organised at Planning Commission in September, 1995 under Prof. J. S. Bajaj, Member (Health), Planning Commission.

4.2 NATIONAL FAMILY WELFARE PROGRAMMES

Basically, there exists only one all encompassing programme in the family welfare. Earlier, this programme used to be known as family planning programme. After it acquired notoriety due to forced sterilisations during the emergency period, the maternal and child health care (MCH) aspect was merged with this programme, and it was renamed the National Family Welfare Programme (NFWP). Presently, MCH programme is a sub programme within the NFWP. This has been therefore dealt with separately in the following sub-sections. It has been further extended in 1992 as Child Survival and Safe Motherhood (CSSM) Programme, with financial assistance from the World Bank and UNICEF.

4.2.1 National Family Welfare Programme

Genesis and Objectives

The population of India is expected to cross the one million mark by 2001 as per the projections made by the Standing Committee of Experts on Population Projections. It is expected that by 2035 A.D., India would be the most populous country. Recognising the enormity of the situation, NFWP was launched in 1951 with the objective of reducing the birth rate to the extent necessary to stabilise the population at a level consistent with the requirement of the national economy.

The long term demographic goal of the National Health Policy (NHP), 1983 is to achieve a Net Reproduction Rate of unity (NRR-1) by the year 2000 A.D. This corresponds to achieving a birth rate of 21 per thousand, death rate of 9 per thousand and annual natural population growth rate of 1.2 percent. NHP also envisages reducing the infant mortality rate (IMR) to below 60 per thousand live births by the same time. These, then, become the goals of the NFWP.

The reduction of IMR has been included in the programme as there exists a direct correlation between high birth rates and high infant mortality rates. Presently, the reduction of IMR and Maternal Mortality Rate (MMR) and ensuring reproductive health of women are recognised as essential components of the NFWP. These aspects of family welfare form the basis of Maternal and Child Health (MCH) Programme, consisting of various schemes viz., the Universal Immunisation Programme (UIP), Oral Rehydration Therapy (ORT) and Prophylaxis Schemes. This MCH programme, which is a very significant component of the NFWP, would be discussed in detail in the next section.

Strategy

For population control, the NFWP seeks to address the following.

- promote responsible and planned parenthood through voluntary and informed choice of family planning methods best suited to individual acceptors;
- get peoples participation through local self-government, voluntary organisations and opinion leaders at different levels;
- use mass media extensively and innovatively, and also make interpersonal communication for highlighting the benefits of the small family norm and removal of socio cultural barriers to its adoption.

To achieve the stated demographic goals, an Action Plan has been evolved in consultation with the Governments of states and UTs. Its key features are listed below.

- Improving the quality and outreach of Family Welfare schemes;
- Differential strategy for special focus on 90 poor performing districts;
- Developing a mechanism to make available funds to States and UTs on the basis of reduction in birth rate;
- Increasing the coverage of younger couples;
- Introducing new contraceptives and improving the quality of contraceptives:
- Revitalising training activities of the personnel with emphasis on motivational counselling aspects;
- Sustaining the good work done under the UIP and strengthening of other interventions for MCH;
- Re-orienting information, education and communication efforts;
- Involving voluntary and non-governmental organisations in a big way to promote community participation in the programme
- Gearing up the implementation machinery in the states and UTs; and
- Evolving high level inter sectoral co-ordination mechanism at the national, state and district levels.

The various components of NFWP are:

- Free distribution of condoms, oral pills, IUDs - some of these are being acquired under commodity assistance from UNFPA
- Initiation of Contraceptive Social Marketing Programme under which condoms and oral contraceptives are provided to the acceptors at subsidised prices
- Procurement and distribution of laproscopes to States/UTs, for undertaking Laproscopic Sterilisation operations
- Establishment of Central Laproscopic Training Centres
- Implementation of Expanded Programme of Medical Termination of Pregnancy (MTP) in various States/UTs. Under this, small MTP cells are being set up at the State/UT level wherever on an average 10,000 and above MTPs are being undertaken in last three years. doctors are being trained in MTP techniques and other surgical procedures, ISI marked MTP Suction Aspirators are being purchased and supplied to PHCs and CHCs where there are trained personnel, and a cash provision of Rs. 15 is being made for drugs and dressing per MTP conducted.

- Involvement of Indian Medical Association (IMA) in training of doctors in Laproscopic Sterilisation Techniques and in holding workshops/seminars in NFWP, particularly to boost up spacing methods
- Development of Centres of Excellence for undertaking research and development activities for improving techniques and quality of sterilisation
- Provision of Grant-in aid to Indian Council of Medical Research for undertaking research in contraceptive technology

Besides the above, various legislative, constitutional and other steps have been taken to promote family welfare activities in the country:

- Pre-natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act 1994, was passed by the Parliament to regulate and prevent the misuse of modern pre-natal diagnostic techniques, particularly for detection and abortion of female foetuses.
- For ensuring strong political commitment, the 79th Constitution Amendment Bill has been introduced in Parliament in December 1992. This seeks to incorporation of promotion of population control and small family norm within the framework of Article 47 dealing with the Directive Principles of State Policy. It also seeks to include a clause in the list of Fundamental Duties, enjoining the citizens of India to promote and adopt small family norm. The Bill proposes to add an additional schedule under which a person having more than two children shall be disqualified for being elected as a member of either House of Parliament or of Legislature of a State. This would however have prospective effect only.
- To promote community participation a scheme has been recently initiated under which a cash reward of Rs. 0.2 million would be given to a village having population of 500 or more, in every district, which records the lowest crude birth rate, IMR and child mortality rate (CMR) amongst all the villages in the district
- Another scheme initiated for the above objective involves giving cash assistance of Rs. 5000 per revenue village, to the Mitra Krishak Mandals organised under the National Watershed Development Project for Rainfed Areas of Ministry of Agriculture, for supply of additional medicines, emergency obstetric care etc. They will also prepare health and family welfare profiles and plans of these villages.
- The method specific contraceptive targets have been replaced by quality indicators for performance evaluation, to promote the concept of quality and safety instead of quantity so as to improve the level of acceptance under the NFWP.

Special Schemes

Special schemes have been initiated to focus on certain important aspects like motivation and training of the personnel, and strengthening the delivery system of family welfare programme:

- All India Hospitals Post-Partum Programme at District and Sub-District Level under which Post Partum centres have been established to motivate women within the reproductive age group or their husbands to adopt small family norms, particularly during pre-natal, natal and post-natal period. These centres also act as referral centres for providing MCH and family welfare services
- PAP Smear Test Facilities programme was introduced in 105 Medical Colleges in the country in order to detect cervical cancer and pre-cancerous lesions among women acceptors and non-acceptors. Under this programme, a post of Cyto-Technician and financial assistance for contingencies, purchase of glassware and chemicals is being provided by the Government

- Sterilisation Bed Scheme was introduced in 1964 under which reservations of sterilised beds were made for tubectomy operations

- Urban Revamping Scheme under which urban health posts have been provided with a view to provide improved delivery service, outreach services of family health care, family welfare and maternity services in urban areas particularly the urban slums. Urban Family Welfare Centres, on ground since 1950, provide family welfare services in urban areas. These will be reorganised into Health Posts gradually as and when the particular cities would be covered under Urban Revamping Scheme

- Rural Family Welfare Centres were established at all the block level PHCs sanctioned up to 1980, to implement the NFWP.

- Crash training programme of LHVs and ANMs in IUD insertion and oral pills administration was started in the country in 1987-88 to ensure the delivery of services at the door step of the community by trained para-medical workers

- Village Health Guide (VHG) scheme aims at training the local persons, preferably women from the community to provide primary health care, family planning and MCH services to the people. These VHGs are provided an honorarium of Rs. 50 per month.

Implementation and Delivery System, and Funding Pattern

The health delivery system of the country is extensively used for the implementation of this programme. Advice, facilities and services to help eligible couples plan their families are provided free of charge in all the sub-centres, PHCs, CHCs, District Hospitals etc. of the rural health delivery system and, hospitals, dispensaries, MCH centres and Post-Partum Centres of the urban system.

Besides the above, Rural Family Welfare Centres in rural areas and, Health posts and Urban Family Welfare Centres in urban areas have been set up specifically to implement the NFWP. Private Medical Practitioners are involved to a great extent.

NFWP has been a 100 percent Centrally sponsored scheme since its inception. The entire expenditure incurred by the states under the programme is reimbursable by the Central Government. It enjoys a unique status in that its entire budget has been retained in the plan account through successive plan periods. This perhaps reflects the centre's intention to protect funding for family welfare, since many of the poorer states cannot be relied upon to provide adequate funding for the recurrent expenditures on the programme.

The financial outlay under the programme has been increasing over the successive five year plans. Table 4.10 gives the outlay and the expenditure under the programme from the First to the Eighth Plans.

TABLE 4-10 - PLAN-WISE OUTLAY AND THE EXPENDITURE UNDER THE NFWP FROM FIRST TO EIGHTH PLANS

(RS. MILLION)

Period	Outlay	Expenditure	Utilisation (%)
First Plan (1951-55)	6.5	1.4	22
Second Plan (1956-61)	50.0	21.5	43
Third Plan (1961-66)	270.0	248.6	92
Annual Plan (inter plan 1966-69)	829.0	704.6	85
Fourth Plan (1969-74)	2,858.0	2,844.3	100
Fifth Plan (1974-79)	2,856.0	4,089.8	143
Annual Plan (1978-79)	1,118.0	1,076.0	96
Annual Plan (1979-80)	1,16.20	1,18.52	102
Sixth Plan (1980-85)	13,090.0	14,257.3	109
Seventh Plan (1985-90)	28,680.0	31,052.1	108
Annual Plan (1990-91)	6,750.0	8,498.9	126
Annual Plan (1991-92)	7,490.0	10,225.2	137
Eighth Plan (1992-97)	65,000.0		
Annual Plan (1992-93)	9,000.0	10,904.0	121
Annual Plan (1993-94)	10,600.0	13,126.2	124
Annual Plan (1994-95)	12,800.0	15,218.5 (provisional)	119
Annual Plan (1995-96)	14,400.0	17,686.7 (anticipated)	123

(The outlay in the last four annual plans is excluding the provision of arrears)

The main reason for the sharp increase in the volume of expenditure is that the committed liabilities of the previous plans have been passed on to the successive five year plans. The total plan allocation for 1996-97 is Rs. 15,350 million, of which Rs. 2,850 million is from the World Bank and UNICEF for the Child Survival and Safe Motherhood (CSSM) programme under the UIP, Rs. 1950 million for the Area Projects being sponsored by various funding agencies like DANIDA and ODA and Rs. 400 million is from USAID to support the Innovations in Family Planning project in UP. About 77 percent of the family welfare budget is for family planning components like services and supplies, training, IEC, research and evaluation, organisational expenses, Area projects, VHG scheme and other schemes, and only 23 percent of the budget is for the MCH/CSSM

Performance

The goals to be achieved by the end of the Eighth Plan under the NFWP and the achievements up to 1994 are given in Table 4.11.

TABLE 4-11 - GOALS AND ACHIEVEMENTS UNDER THE NFWP

Indicator	8th Plan Goal	Achievements 1994
Crude Birth Rate (per 1000 population	26.0	28.7*
IMR (per 1000 live births)	70	74.0*
Couple Protection Rate	56%	45.8%**

* Sample Registration survey (SRS) data
** As on 31-3-95

The infrastructure built under programme as on 30 June 1994 is given in Table 4.12.

TABLE 4-12 - INFRASTRUCTURE BUILT UNDER NFWP AS ON 30 JUNE 1994

Name of the Unit	No. of Units
State Family Welfare Bureau	25
District Family Welfare Bureau	416
Health and Family Welfare Training Centres	47
ANMs Training Centres	461
Promotional Schools for LHVs	44
Post-Partum Centres at District Level	550
Post-Partum Centres at Sub-District Level	1,012
Urban Family Welfare Centres	1,291
Health Posts	871
Rural Family Welfare Centres	5,435
Sub Centres	97,757
VHGs	323,945

Shortcomings

Family planning and family welfare depend largely on the motivation of the masses. Thus, the role of personnel involved in NFWP is more crucial in terms of being able to motivate the users vis-à-vis just providing the services. Their motivation and commitment, therefore, becomes essential for the success of this programme. To achieve this, a transparent system of incentives along with is a very critical requirement. This, however, is completely missing in the present programme. Similarly, lack of an effective monitoring and control mechanisms is leading to gross misappropriation of funds, wastage of supplies and misrepresentation of the achievements.

4.2.2 Maternal and Child Health Programme

Genesis and Objectives

Caring for mothers and children is a very crucial aspect of our health delivery system. This is reflected from the fact that 9 out of 17 goals listed in the National Health Policy (1983) relate to Maternal and Child Health. MCH has being accorded an important role in the health policy of our country from the first plan itself. But the real thrust to this came only after the realisation that MCH is a pre-requisite to the success of family planning activities. The government realised that good health of children inculcates a sense of security in the parents that their offspring will survive and live a healthy life, which in turn would contribute to the acceptance of a small family norm. Also, the health of a child especially that of an infant, would depend largely on the health of the mother. Thus, the MCH programme has the objective of the following objectives.

- providing antenatal, natal and post natal care to the mothers,
- monitoring the growth and development of infants and pre school children.
- providing them with adequate protection through immunisation, and
- providing them with facilities for early detection and treatment of diarrhoea and other childhood diseases.

To begin with, the MCH programme basically comprised the following three family welfare schemes:

- Universal Immunisation Programme (UIP) for the control of vaccine preventable diseases namely diphtheria, pertussis, neo-natal tetanus, tuberculosis, poliomyelitis and measles;
- Oral Rehydration Therapy (ORT) Programme for control of deaths due to dehydration caused by diarrhoea; and
- Prophylaxis Schemes against nutritional anaemia among pregnant mothers and against blindness due to Vitamin A deficiency among children of under 5 years of age.

The training of Dais (the traditional birth attendants in the country) also forms an important component of the MCH.

In 1992, the Child Survival and Safe Motherhood (CSSM) Programme was launched as an extension of the above schemes, with financial assistance of the World Bank and UNICEF. It has the following components:

- Sustaining and strengthening the ongoing Immunisation, ORT and prophylaxis schemes;
- Improving maternal care at the community level by providing an enhanced reporting fee of Rs. 10 per case to the Traditional Birth Attendants (TBAs) and disposable delivery kits to the pregnant women;
- Expanding, in a phased manner, programme for control of Acute Respiratory Infections (ARI) for children below 5 years of age; and
- Setting up, in a phased manner, a network of sub-district level First Referral Units (FRUs) for improving emergency obstetric care in the states of Assam, Bihar, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh. These are, however, being extended to other states as well.

Strategy

The UIP, declared as a Technology Mission in 1986, was launched in 1985. As part of its objective of providing immunisation to all infants against six vaccine preventable diseases and pregnant women against tetanus, it provides inputs in form of cold chain equipment (for safe storage and movement of vaccines), vaccines, training of medical and paramedical staff and IEC material to all the districts.

The ORT programme was started in 1986-87 with the aim of preventing deaths caused in children due to dehydration. The programme put emphasis on the rational use of drugs for the management of Diarrhoea. Anti-diarrhoeals have no place in the programme. Instead, ORS supplies are organised and distributed by the Government of India to the states and UTs. Under CSSM, ORS is being supplied as part of the sub-centre kits. A national standard has been developed for ORS packets. Inter personnel communication, specially with mothers, was started for promotion of ORT.

The two prophylaxis schemes, Anaemia Prevention and Control among Pregnant Women and Prevention and Control of Vitamin A Deficiency among Children, concentrate on controlling maternal mortality and blindness in children.

The ARI or pneumonia control programme includes training of peripheral level health workers on recognition of pneumonia and treatment with cotrimoxazole. Besides, cotrimoxazole is being supplied to the health workers through CSSM drug kit.

A large proportion of deliveries in the country, especially the rural areas, are attended by untrained hands of TBAs. The goal of the government is to achieve 100 percent deliveries by trained personnel. The CSSM programme, therefore accords high priority to the speeding up of

the training of TBAs in all states/UTs. After successful completion of training, each dai is provided with a dai kit to help her in safe and clean delivery.

Under the CSSM programme support in form of equipment is being provided to health facilities that can function as FRUs, and to PHCs and SCs, for strengthening their Emergency Obstetrics Care (EOC) facilities. This equipment is being provided in the form of kits containing Laprotomy set, Minilaporatomy set, IUD insertion set, Vasectomy set, Normal Delivery set, Vaccum extraction set, Emryotomy set, Uterine evacuation set, equipment for anaesthesia, Neonatal resuscitation set, equipment and reagents for blood tests, and donor blood transfusion set.

Implementation and Delivery System and Funding Pattern

As it forms part of the NFWP the implementation and delivery system is same as that of NFWP. UIP has particularly succeeded in establishing a contact between the beneficiaries (mother and child) and paramedical workers (ANMs) located at the Subsidiary Health Centres.

Considerable effort has gone into developing a surveillance system. The immediate reporting of cases of neonatal tetanus and poliomyetis has been made mandatory.

All the schemes are 100 percent centrally sponsored. The CSSM programme is being implemented with a component of financial assistance of World Bank and UNICEF with an approved outlay of Rs. 11,255 million over a seven year period (1992-93 to 1997-98). An amount of Rs. 2,200 million had been kept in the budget estimates of 1995-96. The expenditure during the eighth plan on the MCH has been as outlined in Table 4.13.

TABLE 4-13 - EXPENDITURE DURING EIGHTH PLAN ON MCH

(RS. MILLION)

Year	Expenditure
1992-93	3338.4
1993-94	3778.3
1994-95	5178.8
1995-96	4291.0 (outlay)

Performance

Table 4.14 gives the performance of UIP over the last two years.

TABLE 4-14 - ACHIEVEMENT AS PERCENTAGE OF ANNUAL TARGETS FOR UIP

Year	Targets (in millions)		DPT	OPV	BCG	MSL	TT (PW)
1985-86	12.855	12.855	41.12	35.66	28.84	1.34	39.85
1986-87	15.200	15.200	56.55	48.41	52.19	16.17	45.27
1987-88	16.932	16.932	72.23	60.46	70.70	44.06	56.48
1988-89	18.044	22.664	79.61	74.83	79.29	55.17	66.15
1989-90	19.141	25.124	82.93	82.30	89.04	69.32	58.83
1990-91	22.334	25.266	100.72*	101.54*	102.99*	90.85	79.70
1991-92	23.334	26.131	90.89	91.26	92.83	84.99	77.57
1992-93	24.290	27.008	90.53	91.04	96.54	85.82	79.18
1993-94	24.790	27.555	93.10	93.57	96.95	88.51	82.48
1994-95	24.765	27.526	91.65	92.28	97.07	83.54	80.90
1995-96	24.861	27.530	76.41	76.82	83.69	67.76	66.93

* Over 100 percent figures due to inclusion of children over one year of age under immunisation