3

Health and Family Welfare and AYUSH

3.1 HEALTH AND FAMILY WELFARE

Introduction

3.1.1 The health of a nation is an essential component of development, vital to the nation's economic growth and internal stability. Assuring a minimal level of health care to the population is a critical constituent of the development process.

3.1.2 Since Independence, India has built up a vast health infrastructure and health personnel at primary, secondary, and tertiary care in public, voluntary, and private sectors. For producing skilled human resources, a number of medical and paramedical institutions including Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy (AYUSH) institutions have been set up.

3.1.3 Considerable achievements have been made over the last six decades in our efforts to improve health standards, such as life expectancy, child mortality, infant mortality, and maternal mortality. Small pox and guinea worm have been eradicated and there is hope that poliomyelitis will be contained in the near future. Nevertheless, problems abound. Malnutrition affects a large proportion of children. An unacceptably high proportion of the population continues to suffer and die from new diseases that are emerging; apart from continuing and new threats posed by the existing ones. Pregnancy and childbirth related complications also contribute to the suffering and mortality.

3.1.4 The strong link between poverty and ill health needs to be recognized. The onset of a long and expensive illness can drive the non-poor into poverty. Ill health creates immense stress even among those who are financially secure. High health care costs can lead to entry into or exacerbation of poverty. The importance of public provisioning of quality health care to enable access to affordable and reliable heath services cannot be underestimated. This is specially so, in the context of preventing the non-poor from entering into poverty or in terms of reducing the suffering of those who are already below poverty line.

3.1.5 The country has to deal with rising costs of health care and growing expectations of the people. The challenge of quality health services in remote rural regions has to be urgently met. Given the magnitude of the problem, we need to transform public health care into an accountable, accessible, and affordable system of quality services during the Eleventh Five Year Plan.

Vision for Health

3.1.6 The Eleventh Five Year Plan will provide an opportunity to restructure policies to achieve a New Vision based on faster, broad-based, and inclusive growth. One objective of the Eleventh Five Year Plan is to achieve good health for people, especially the poor and the underprivileged. In order to do this, a comprehensive approach is needed that encompasses individual health care, public health, sanitation, clean drinking water, access to food, and knowledge of

hygiene, and feeding practices. The Plan will facilitate convergence and development of public health systems and services that are responsive to health needs and aspirations of people. Importance will be given to reducing disparities in health across regions and communities by ensuring access to affordable health care.

3.1.7 Although it has been said in plan after plan, it needs to be reiterated here that the Eleventh Five Year Plan will give special attention to the health of marginalized groups like adolescent girls, women of all ages, children below the age of three, older persons, disabled, and primitive tribal groups. It will view gender as the cross-cutting theme across all schemes.

3.1.8 To achieve these objectives, aggregate spending on health by the Centre and the States will be increased significantly to strengthen the capacity of the public health system to do a better job. The Plan will also ensure a large share of allocation for health programmes in critical areas such as HIV/AIDS. The contribution of the private sector in providing primary, secondary, and tertiary services will be enhanced through various measures including partnership with the government. Good governance, transparency, and accountability in the delivery of health services will be ensured through involvement of PRIs, community, and civil society groups. Health as a right for all citizens is the goal that the Plan will strive towards.

Time-Bound Goals for the Eleventh Five Year Plan

- Reducing Maternal Mortality Ratio (MMR) to 1 per 1000 live births.
- Reducing Infant Mortality Rate (IMR) to 28 per 1000 live births.
- Reducing Total Fertility Rate (TFR) to 2.1.
- Providing clean drinking water for all by 2009 and ensuring no slip-backs.
- Reducing malnutrition among children of age group 0–3 to half its present level.
- Reducing anaemia among women and girls by 50%.
- Raising the sex ratio for age group 0–6 to 935 by 2011–12 and 950 by 2016–17.

(Actions to be taken to achieve the goals related to clean drinking water, malnutrition, and anaemia have been indicated in detail in other chapters.)

Current Scenario, Concerns, and Challenges

India in the International Scenario

3.1.9 The comparative picture with regard to health indicators such as life expectancy, TFR, IMR, and MMR points that countries placed in almost similar situations such as Indonesia, Sri Lanka, and China have performed much better than India (Table 3.1.1).

TABLE 3.1.1
Health Indicators among Selected Countries

Country	IMR (per 1000 live births)	Life Expectancy M/F (in years)	MMR (per 100000 live births)	TFR
India	58	63.9/66.9*	301	2.9
China	32	70.6/74.2	56	1.72
Japan	3	78.9/86.1	10	1.35
Republic of Korea	3	74.2/81.5	20	1.19
Indonesia	36	66.2/69.9	230	2.25
Malaysia	9	71.6/76.2	41	2.71
Vietnam	27	69.5/73.5	130	2.19
Bangladesh	52	63.3/65.1	380	3.04
Nepal	58	62.4/63.4	740	3.40
Pakistan	73	64.0/64.3	500	3.87
Sri Lanka	15	72.2/77.5	92	1.89

Note: * Projected (2001–06).

Source: India—RGI, Government of India (GoI) (Latest Figures); Others—State of World Population (2006).

Scenario in Relation to Tenth Plan Goals

3.1.10 Of the 11 monitorable targets for the Tenth Plan, three were related to the health sector. Their goals and achievements are summarized in Table 3.1.2.

DECADAL RATE OF POPULATION GROWTH/ TOTAL FERTILITY RATE (TFR)

3.1.11 The decadal growth of population during 1991–2001 had been 21.5%, on account of the momentum built from high levels of fertility in the past. The good news is that we are right on course with respect to the first of the three Tenth Plan monitorable targets related to the health sector. The projected decadal population growth rate is 15.9% for 2001–11. The two important demographic goals of the National Population Policy (2000) are: achieving the population replacement level (TFR 2.1) by 2010 and a stable population by 2045. TFR, which in the early 1950s was 6.0, has declined to 2.9 in 2005. Thus, India is moving towards its goal of replacement-level fertility of 2.1. The percentage of married women using contraception has increased from a level of just over 10% in the early 1970s to 41% in 1992–93, 48% in 1998–99, and to 56% by 2005–06 (Figure 3.1.1). However, there are huge differentials amongst various States.

MATERNAL MORTALITY RATIO (MMR)

3.1.12 The MMR during 2001–03 has been 301 per 100000 live births (RGI, 2006). Levels of maternal mortality vary greatly across the regions due to variation in access to emergency obstetric care (EmOC), prenatal care, anaemia rates among women, education level of women, and other factors. There has been a substantial decline during the seven year period of 1997–2003. However, the pace of decline is insufficient. At the present rate of decline, it will be difficult to achieve the goal of 100 by 2012 (Figure 3.1.2). This reinforces that rapid expansion of skilled birth attendance and EmOC is needed to further reduce maternal mortality in India.

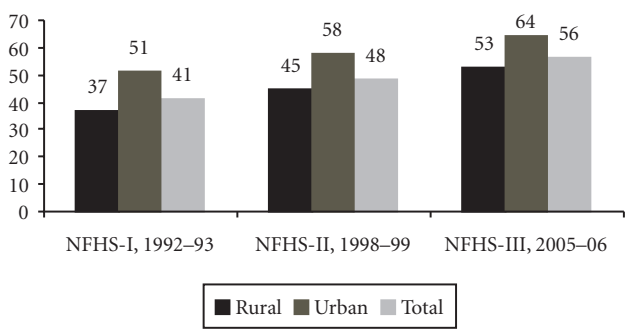
INFANT MORTALITY RATE (IMR)

3.1.13 IMR is 58 per 1000 live births (Sample Registration System [SRS], 2005). It is higher in rural areas (64) and lower in the urban areas (40) of the country.

TABLE 3.1.2
Goals and Achievements during the Tenth Plan

Indicator	Goal for Tenth Plan	Achievements
Decadal Rate of Population Growth	16.2%	15.9% for 2001–11 (Projected)[1]
IMR	45 per 1000 live births	58 per 1000 live births[2]
MMR	2 per 1000 live births	3.01 per 1000 live births[3]

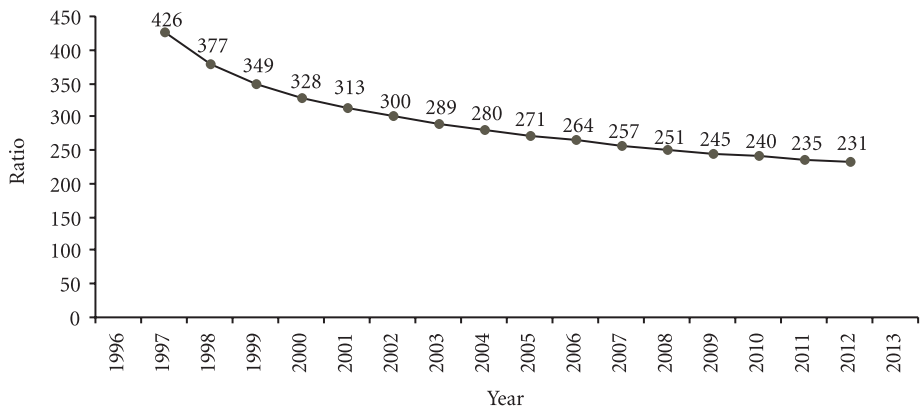
Notes: 1. Technical Group on Population Projections set up by National Commission on Population (December 2006), RGI, GoI; 2. SRS 2005; 3. 2001–03 Special Survey of Deaths using RHIME (routine, re-sampled, household interview of mortality with medical evaluation), RGI (2006), GoI.



Source: NFHS-3, IIPS (2005–06).

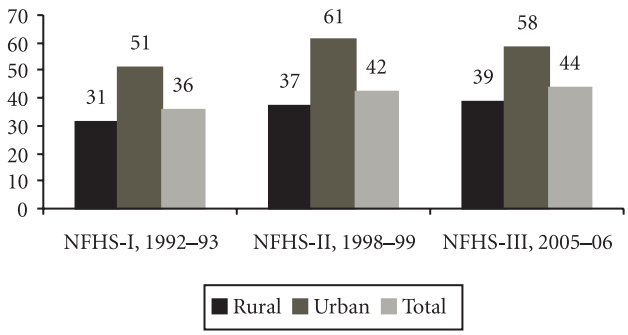
FIGURE 3.1.1: Trends in Contraceptive Use (%) (currently married women in 15–49 age group)

It also varies across States. Neo-natal mortality (at 37 per 1000 live births) constitutes nearly 60%–75% of the IMR in various States. The coverage of immunization has increased marginally from 42% in 1998–99 to 44% in 2005–06 (Figure 3.1.3). Polio continues to be a problem and usage of Oral Rehydration Solution (ORS) among children with diarrhoea continues to be low (according to NFHS-3, 26.2% of children with diarrhoea in the last two weeks received ORS). The trend of reduction in IMR has been shown in Figure 3.1.4. Concerted efforts will be required under Home Based Newborn Care (HBNC) to reduce the IMR and Neonatal Mortality Rate (NMR) further.



Source: RGI (2006).

FIGURE 3.1.2: MMR in India: Trends Based on Log-linear Model, 1997–2012



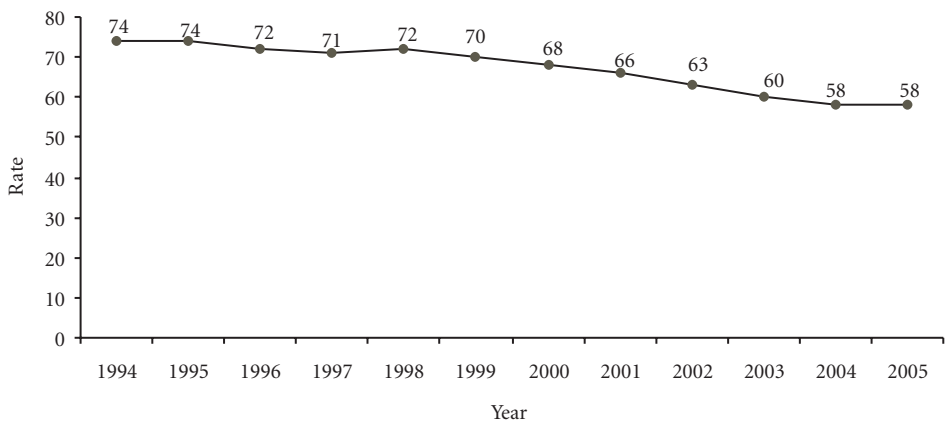
Source: NFHS-3, IIPS (2005–06).

FIGURE 3.1.3: Trends in Full Immunization Coverage

Disparities and Divides

3.1.14 Within the country, there is persistence of extreme inequality and disparity both in terms of access to care as well as health outcomes. Kerala's life-expectancy at birth is about 10 years more than that of MP and Assam. IMRs in MP and Orissa are about five times that of Kerala. MMR in UP is more than four times that of Kerala and more than three times that of Haryana. Crude death rates among States also reveal wide variations. Crude death rates in Orissa and MP are about twice the crude death rates in Delhi and Nagaland. This high degree of variation of health indices is itself a reflection of the high variance in the availability of health services in different parts of the country.

3.1.15 Approximately a quarter of the districts account for 40% of the poor, over half of the malnourished, nearly two-thirds of malaria and kala-azar, leprosy,



Source: SRS Bulletin, RGI (October 2006).

FIGURE 3.1.4: IMR in India

infant and maternal mortality, and diseases (National Commission on Macroeconomics and Health, NCMH, 2005). The challenge is to provide these areas with access to low-cost public health interventions such as universal immunization services and timely treatment. These States are also the ones that have acute crises of human and financial resources.

3.1.16 Public health care system in rural areas in many States and regions is in shambles. Extreme inequalities and disparities persist both in terms of access to health care as well as health outcomes (Table 3.1.3). This large disparity across India places the burden on the poor, especially women, scheduled castes, and tribes. Inequity is also reflected in the availability of public resources between the advanced and less developed States.

3.1.17 Urban growth has led to increase in number of urban poor. Population projections postulate that slum growth is expected to surpass the capacity of civic authorities to respond to their health and infrastructure needs. As per 2001 census, 4.26 crore lived in urban slums spread over 640 towns and cities. The number is growing. Though the coverage of health and family welfare services in urban areas is much better than the rural, lack of water and sanitation and the high population density in slums leads to rapid spread of infections. These settlements have high incidence of vector-borne diseases, asthma, tuberculosis, malaria, coronary heart diseases, diabetes, etc. Poor housing conditions, exposure to heat and cold, air and water pollution, and occupational hazards add to the environmental risks for the poor. They are vulnerable as they have no backup savings, food stocks, or social support systems to tide over the crisis of illness. Despite the presence of many private and government hospitals in urban areas, a large chunk of the homeless and those living in slums or temporary settlements are left out of the proper health care system. Thus, even though there is a concentration of health care facilities in urban areas, the urban poor lack access; initiatives in the country to date have been limited and fragmented.

Disease Burden

3.1.18 India is in the midst of an epidemiological and demographic transition with increasing burden of chronic diseases, decline in mortality and fertility rates, and ageing of the population. An estimated 2–3.1 million people in the country are living with HIV/AIDS, a communicable disease, with a potential to undermine the health and developmental gains India has made since Independence. Non-communicable diseases (NCDs) such as cardiovascular diseases (CVDs), cancer, blindness, mental illness, etc., have imposed the chronic disease burden on the already over-stretched health care system of the country. The NCMH 2005 figures of disease burden are given in Table 3.1.4.

COMMUNICABLE DISEASES

3.1.19 AIDS is acquiring a female face, that is, gradually the gap between females and males is narrowing as far as number of cases and infections are concerned. The youth are becoming increasingly vulnerable. The prevalence rate of more than 1% amongst pregnant women was reported from five States, that is, Andhra Pradesh, Maharashtra, Karnataka, Manipur, and Nagaland. GoI responded to HIV/AIDS threat by preventive awareness, targeted interventions, and care and support programmes. As on 31 December 2006, a total of 162257 cases of AIDS were reported. The risk of tuberculosis infection in HIV positive

TABLE 3.1.3
Urban/Rural Health Indicators

	Crude Birth Rate (per 1000)	Crude Death Rate (per 1000)	IMR (per 1000 live births)	Prevalence of Anaemia among Children (6–35 months) (%)	Prevalence of Anaemia among Pregnant Women (%)
Urban	19.1	6.0	40	72.7	54.6
Rural	25.6	8.1	64	81.2	59.0
Total	23.8	7.6	58	79.2	57.9

Source: Ministry of Health and Family Welfare (MoHFW), GoI (2006) and NHFS-3, IIPS (2005–06).

TABLE 3.1.4
Disease Burden Estimation, 2005

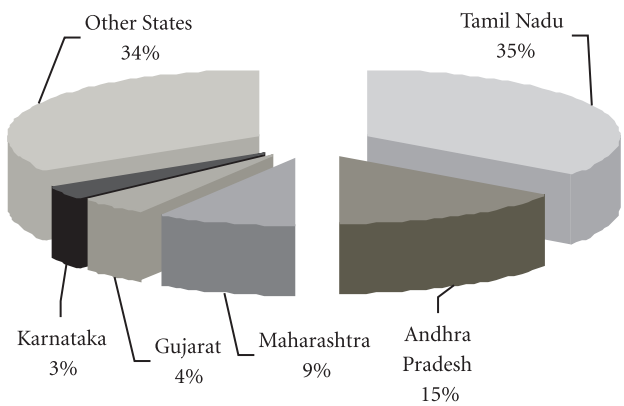
Disease/Health Condition	Estimate of Cases/lakh	Projected number (2015) of Cases/lakh
Communicable Diseases		
Tuberculosis	85 (2000)	NA
HIV/AIDS	51 (2004)	190
Diarrhoeal Diseases Episodes per Year	760	880
Malaria and other Vector Borne Diseases	20.37 (2004)	NA
Leprosy	3.67 (2004)	Expect to be Eliminated
Otitis Media	3.57	4.18
Non-Communicable Conditions		
Cancers	8.07 (2004)	9.99
Diabetes	310	460
Mental Health	650	800
Blindness	141.07	129.96
CVDs	290 (2000)	640
COPD and Asthma	405.20 (2001)	596.36
Other Non-Communicable		
Injuries—deaths	9.8	10.96
Number of Hospitalizations	170	220

Source: NCMH (2005).

persons increased manifold. National AIDS Control Organization (NACO) is working closely with Revised National Tuberculosis Control Programme (RNTCP) for promoting cross referrals for early diagnosis and prompt treatment. The strategies of National AIDS Control Programme Phase II (NACP-II) have yielded positive results. The HIV prevalence is stabilizing and States like Tamil Nadu, Andhra Pradesh, Karnataka, Maharashtra, and Nagaland have started showing declining trends. The State-wise distribution of number of AIDS cases in India during 2006 is shown in Figure 3.1.5. The lessons learnt have been utilized in formulating NACP-III, which will be implemented in the country during the Eleventh Five Year Plan.

3.1.20 Tuberculosis remains a public health problem, with India accounting for one-fifth of the world incidence. Every year 1.8 million people in India develop tuberculosis, of which 0.8 million are infectious smear positive cases. The emergence of HIV-TB co-infection and multi drug resistant tuberculosis has increased the severity and magnitude of the problem. RNTCP has achieved nation wide coverage in March 2006. Since the inception of the programme, over 6.3 million patients have been initiated on treatment, and the programme has achieved all the proposed goals in terms of expansion of Directly Observed Treatment, Short Course (DOTS) services, case finding, and treatment success during the Tenth Plan.

3.1.21 A National Vector Borne Disease Control Programme was initiated during the Tenth Plan with the convergence of ongoing programmes on malaria, kala-azar, filariasis, Japanese encephalitis, and dengue.

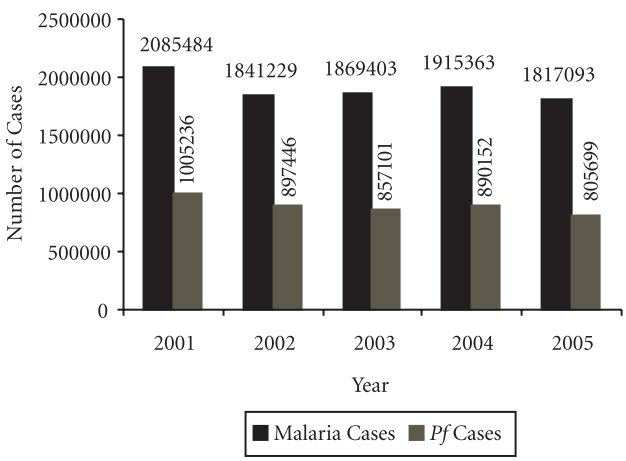


Source: National Health Profile (2006).

FIGURE 3.1.5: Number of AIDS Cases in States, 2006

Malaria cases in India declined from 3.04 in 1996 to 1.82 million cases in the year 2005. The number of *Plasmodium falciparum* (*Pf*) cases has also been decreasing (Figure 3.1.6). More than 80% of malaria cases and deaths are reported from NE States, Chhattisgarh, Jharkhand, MP, Orissa, Andhra Pradesh, Maharashtra, Gujarat, Rajasthan, WB, and Karnataka. Under the Enhanced Malaria Control Project, 100% support was provided in 100 districts of 8 States, predominantly inhabited by tribal population. These areas reported a 45% decline in malaria cases.

3.1.22 An estimated population of 130 million is exposed to the risk of kala-azar in the endemic areas. The annual incidence of disease has come down from 77099 cases in 1992 to 31217 cases in 2005 and deaths from 1419 to 157, respectively. Lymphatic Filariasis (LF) remains endemic in about 250 districts in 20 States and UTs. The population at risk is over 500 million. To achieve elimination of LF, the GoI has launched nationwide Annual Mass Drug Administration (MDA) with annual single recommended dose of diethylcarbamazine citrate tablets in addition to scaling up home based foot care and hydrocele operations. In 2005, 243 endemic districts implemented MDA targeting a population of about 554 million with a coverage rate of 80%. Dengue fever and Chikungunya are emerging as major threats in urban, peri-urban, and rural areas in many States/UTs.



Source: MoHFW, GoI (2006).

FIGURE 3.1.6: Malaria Cases and *Pf* Cases, India

3.1.23 The goal of leprosy elimination at national level (<1 case/10000 population) as set by National Health Policy (2002) was achieved in the month of December 2005. Even though the disease came down to a level of elimination, still it is prevalent with moderate endemicity in about 20% of the districts. During 2005–06, a total of 1.61 lakh new leprosy cases were detected.

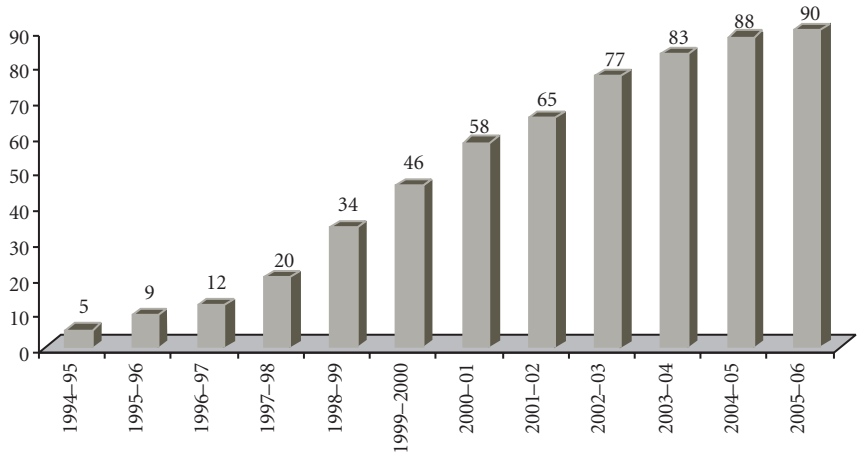
NON-COMMUNICABLE DISEASES (NCDs)

3.1.24 India is experiencing a rapid epidemiological transition, with a large and rising burden of chronic diseases, which were estimated to account for 53% of all deaths and 44% of Disability Adjusted Life Years lost in 2005. NCDs, especially diabetes mellitus, CVDs, cancer, stroke, and chronic lung diseases have emerged as major public health problems due to an ageing population and environmentally-driven changes in behaviour.

3.1.25 Cancer has become an important public health problem in India with an estimated 7 to 9 lakh cases occurring every year. At any point of time, it is estimated that there are nearly 25 lakh cases in the country. The strategy under the National Cancer Control Programme (NCCP) was revised in 1984–85 and further in 2004 with stress on primary prevention and early detection of cancer cases. In India, tobacco related cancers account for about half the total cancers among men and 20% among women. About one million tobacco related deaths occur each year, making tobacco related health issues a major public health concern.

3.1.26 In India, more than 12 million people are blind. Cataract (62.6%) is the main cause of blindness followed by Refractive Error (19.70%). There has been a significant increase in proportion of cataract surgeries with Intra Ocular Lens (IOL) implantation from <5 % in 1994 to 90% in 2005–06 (Figure 3.1.7).

3.1.27 Oral Health Care has not been given sufficient importance in our country. Most of the district hospitals have a post of dental surgeon but they lack equipment, machinery, and material. Even where the equipment exists, the maintenance is poor, hence service delivery is affected.



Source: Annual Report, MoHFW (2006–07).

FIGURE 3.1.7: Percentage of Cataract Surgeries with IOL

Health Care Infrastructure and Human Resources: The Gaps

3.1.28 To address the gaps in health infrastructure and human resources, the National Rural Health Mission (NRHM) was launched on 12 April 2005. A generic public health delivery system envisioned under NRHM from the village to block level is illustrated in Figure 3.1.8.

3.1.29 The details of existing and required physical infrastructure have been provided in Table 3.1.5. Maximum shortage at the Community Health Centres (CHCs) level is adversely affecting the secondary health care and linkages.

3.1.30 Availability of appropriate and adequately trained human resources is an essential concomitant of Rural Health Infrastructure. The present position, requirement, and shortfall regarding public health care human resources have been shown in Table 3.1.6. Across rural areas, there are considerable shortfalls plus a large number of vacant positions of doctors, nurses, and paramedical personnel. There is also wide variation in number of persons served by a specialist in rural areas (Figure 3.1.9). Despite the existing shortages, whatever few formally trained and qualified doctors are available, are mainly through the public health care system. A large proportion of population visits private providers for their health care needs. The challenge is to resolve these problems and provide the poor access to subsidized or free public health services.

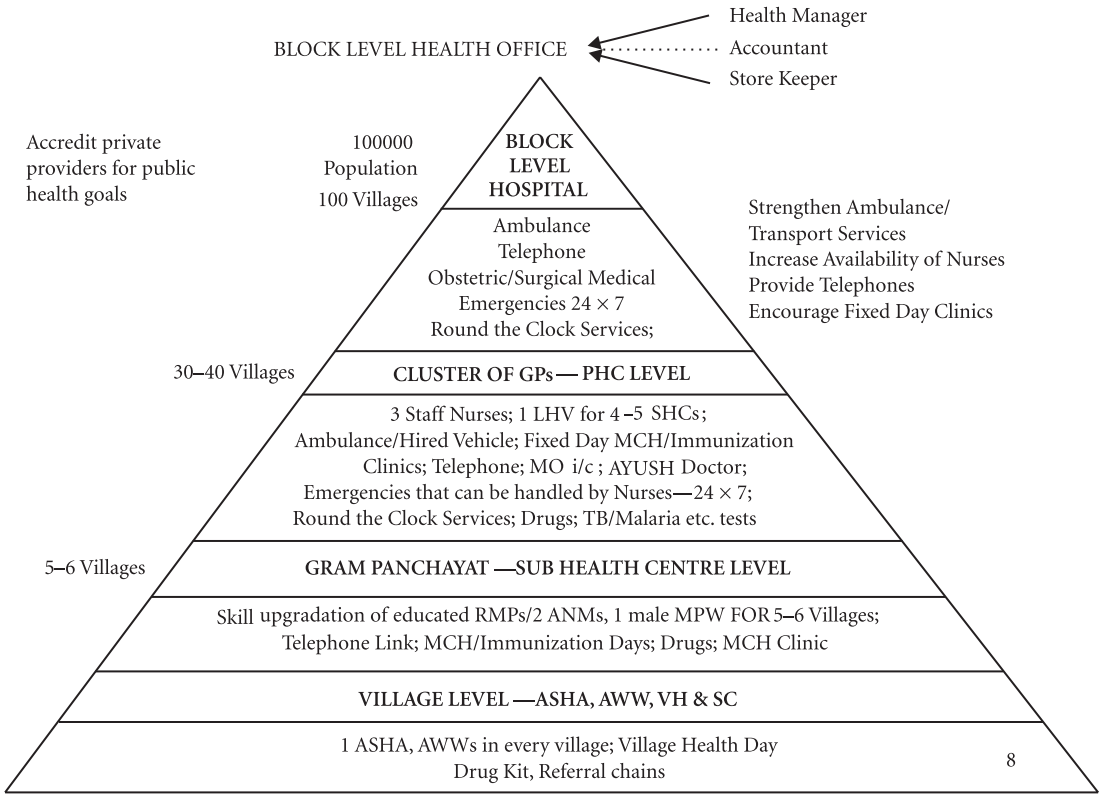
3.1.31 During the last few years there has been a great change in the availability of secondary and tertiary health care facilities in the country. Number of government hospitals increased from 4571 in 2000 to 7663 in 2006, that is, an increase of 67.6%. Number of beds in these hospitals increased from 430539 to 492698, that is, an increase of 14.4%. Current figures are not available on number of private and NGO hospitals as well as on human resources in the

TABLE 3.1.5
Shortfall in Health Infrastructure—All India

As per 2001 Population	Required	Existing	Shortfall	% Shortfall
Sub-Centres	158792	144998	20903	13.16
PHCs	26022	22669	4803	18.46
CHCs	6491	3910	2653	40.87

Notes: All India shortfall is derived by adding State-wise figures of shortfall ignoring the existing surplus in some of the States.

Source: Bulletin of Rural Health Statistics in India, Special Revised Edition, MOHFW, GoI (2006).



Notes: TB = Tuberculosis, MO = Medical Officer, MCH = Maternal and Child Health.

FIGURE 3.1.8: NRHM–Illustrative Structure

private sector but in 2002, the country had 11345 private/NGO hospitals (allopathic) with a capacity of 262256 beds. These are mostly in the private sector located in cities and towns.

Drawbacks of the Public Health System

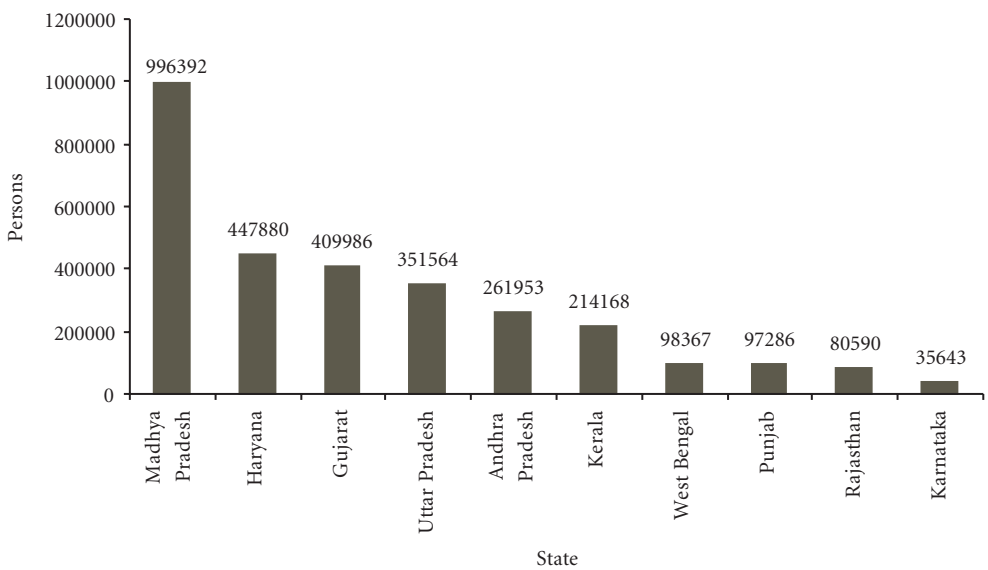
3.1.32 The public health system in our country has various drawbacks (see Box 3.1.1). The conceptualization and planning of all programmes is centralized instead of decentralized using locally relevant strategies. The approach towards disease control and prevention is fragmented and disease-specific rather than comprehensive. This leads to vertical programmes for each and every disease. These vertical programmes are technology-centric and work in isolation of each other (Box 3.1.2). The provision of infrastructure is based on population norms rather than habitations leading to issues of accessibility, acceptability, and utilization. Inadequate resources also lead to lack of client conveniences and non-availability of essential consumables and non-consumables. The gap between requirement and availability of human resources at various levels of health care is wide and where they are available, the patient–provider interactions are beset with many problems, in addition to waiting time (opportunity cost) for consultation/treatment. The system lacks a real and working process of monitoring, evaluation, and feedback. There is no incentive for those who work well and check on those who do not. Quality assurance at all levels is not adhered to due to lacunae in implementation. This results in semi-used or dysfunctional health infrastructure. There is lack of convergence with other key areas affecting health as the system has been unable to mobilize action in areas of safe water, sanitation, hygiene, and nutrition. Despite constraints of human resources, practitioners of Indian Systems of Medicine (ISM), Registered Medical Practitioners (RMPs), and other locally available human resources have not been adequately mobilized and integrated in the system.

TABLE 3.1.6
Shortfall in Health Personnel—All India

For the Existing Infrastructure	Required (R)	Sanctioned (S)	In Position (P)	Vacant (S-P)	Shortfal (R-P)
Multipurpose Workers (Female)/ANM at Sub-Centres and PHCs	167657	162772	149695	13126 (8.06%)	18318 (10.93%)
Health Workers (Male)/MPWs (M) at Sub-Centres	144998	94924	65511	29437 (31.01%)	74721 (51.53%)
Health Assistants (Female)/LHV at PHCs	22669	19874	17107	2781 (13.99%)	5941 (26.21%)
Health Assistants (Male) at PHCs	22669	24207	18223	5984 (24.72%)	7169 (31.62%)
Doctors at PHCs	22669	27927	22273	5801 (20.77%)	1793 (7.91%)
Total Specialists at CHCs	15640	9071	3979	4681 (51.60%)	9413 (60.19%)
Radiographers at CHCs	3910	2400	1782	620 (25.83%)	1330 (34.02%)
Pharmacists at PHCs and CHCs	26579	22816	18419	4445 (19.48%)	4389 (16.51%)
Lab Technician at PHCs and CHCs	26579	15143	12351	2792 (18.44%)	9509 (35.78%)

Note: For calculating the overall percentages of vacancy and shortfall, the States/UTs for which the human resources position is not available, have been excluded. Also, all India shortfall is derived by adding State-wise figures of shortfall ignoring the existing surplus in some of the States.

Source: Bulletin of Rural Health Statistics in India, Special Revised Edition, MOHFW, GoI (2006).



Source: Bulletin of Rural Health Statistics in India, Special Revised Edition, MOHFW, GoI (2006).

FIGURE 3.1.9: Number of Persons per Specialist at CHCs, 2006

Box 3.1.1
Drawbacks of the Public Health System

- Centralized planning instead of decentralized planning and using locally relevant strategies
- Institutions based on population norms rather than habitations
- Fragmented disease specific approach rather than comprehensive health care
- Inflexible financing and limited scope for innovations
- Semi-used or dysfunctional health infrastructure
- Inadequate provision of human resources
- No prescribed standards of quality
- Inability of system to mobilize action in areas of safe water, sanitation, hygiene, and nutrition (key determinants of health in the context of our country)—lack of convergence
- Inability to mobilize AYUSH and RMPs and other locally available human resources

Box 3.1.2
Vertical Programmes

Technology-centric
- See the disease as being caused by an agent (parasite/virus/bacteria) and fail to see its social and ecological setting.
- Response is heavily dependant on technology.

Fragmented
- Only one or two of all the factors that go into the disease setting (and that too in isolation) are addressed.

Administration
- The entire planning and packaging is done centrally.
- Only local aspect is the application (under a chain of command).
- Limited role for community participation.

The Result
- An inappropriate package for local needs.
- Local people are indifferent—sometimes even resistant.
- Even the administration cannot in perpetuity keep its attention on the programme alone.

Growth of Private Sector, Health Care Utilization, and Cost

3.1.33 The growth of private health sector in India has been considerable in both provision and financing. There is diversity in the composition of the private sector, which ranges from voluntary, not-for-profit, for-profit, corporate, trusts, stand-alone specialist services, diagnostic services to pharmacy shops and a range of highly qualified to unqualified providers, each addressing different market segments.

3.1.34 We have a flourishing private sector, primarily because of a failing in the public sector. The growth of private hospitals and diagnostic centres was also encouraged by the Central and State Governments by offering tax exemptions and land at concessional rates, in return for provision of free treatment for the poor as a certain proportion of outpatients and inpatients. Apart from subsidies, private corporate hospitals receive huge amounts of public funds in the form of reimbursements from the public sector undertakings, the Central and the State Governments for treating their employees.

3.1.35 The cost of health care in the private sector is much higher than the public sector. Many small providers have poor knowledge base and tend to follow irrational, ineffective, and sometimes even harmful practices for treating minor ailments. Bulk of the qualified medical practitioners and nurses are subject to self-regulation by their respective State Medical Councils under central legislation. In practice, however, regulation of these professionals is weak and close to non-existent.

3.1.36 Public spending on health in India is amongst the lowest in the world (about 1% of GDP), whereas its proportion of private spending on health is one of the highest. Households in India spend about 5–6% of their consumption expenditure on health (NSSO). The cost of services in the private sector makes it unaffordable for the poor and the underprivileged.

HEALTH CARE UTILIZATION

3.1.37 Despite a steady increase in public health care infrastructure, utilization of public health facilities by population for outpatient and inpatient care has not improved. The NSSO (1986–2004) data clearly show a major decline in utilization of the public health facilities for inpatient care and a corresponding increase in utilization of the same from private health care providers in both rural and urban areas (Figures 3.1.10 and 3.1.11). With the exception of a few States, there has been very low utilization for outpatient care as well (Figure 3.1.12). Despite higher costs in the private sector, this shift shows the people's growing lack of trust in the public system. Critical shortage of health personnel, inadequate incentives, poor working conditions, lack of transparency in posting of doctors in rural areas, absenteeism, long wait, inconvenient clinic hours, poor outreach, time of service, insensitivity to local needs, inadequate planning, management, and monitoring of service/facilities appear to be the main reasons for low utilization.

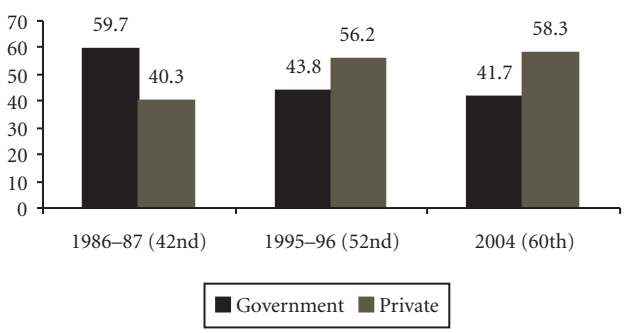
COST OF TREATMENT BY HOUSEHOLDS

3.1.38 According to NSSO (60th Round), the average expenditure for hospitalized treatment from a public hospital was less than half that of private hospital in rural areas and about one-third in urban areas (Figure 3.1.12). There are also inter-State variations. The cost per hospitalization in government hospital was lowest in Tamil Nadu (Rs 637 in rural areas and Rs 1666 in the urban areas) and highest in rural Haryana (Rs 11665) and urban Bihar (Rs 30822). The cost of hospitalization in private hospitals was highest in Himachal Pradesh (Rs 14652 in rural areas and Rs 23447 in urban areas) and lowest in rural Kerala (Rs 4565) and urban Chhattisgarh (Rs 4359), respectively.

3.1.39 As per NSSO 60th Round, during 2004, 24% of the episodes of ailments among the poor were untreated in rural areas and 22% in urban areas. Lack of finances was cited as a reason by 28% of persons with untreated episodes in rural areas and 20% in urban areas. It is also notable that 12% cited lack of medical facility as the cause of not receiving treatment in rural areas.

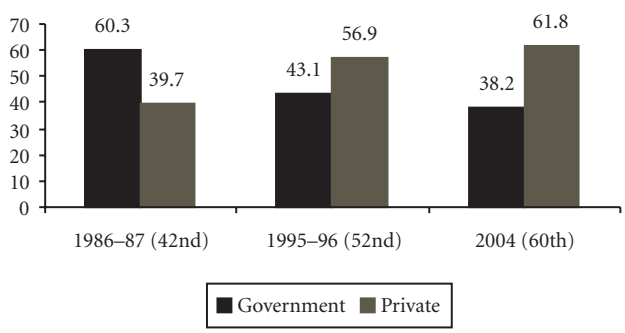
Review of Tenth Plan Schemes

3.1.40 The Tenth Five Year Plan (2002–2007) indicated the dismal picture of the health services infrastructure and emphasized the need to invest more on building good primary-level care and referral services. The plan emphasized on restructuring and developing the health infrastructure, especially at the primary level. The plan highlighted the importance of the role of decentralization but did not state how this would be achieved. Programme-driven health care was in focus. Verticality and technical solutions were



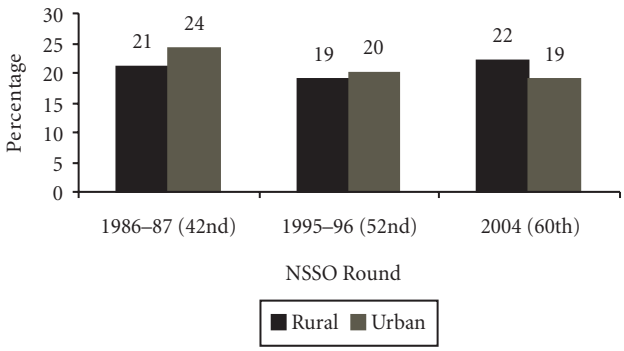
Source: NSSO 60th Round (2004).

FIGURE 3.1.10: Percentage of Cases of Hospitalized Treatment by Type of Hospital in Rural Areas



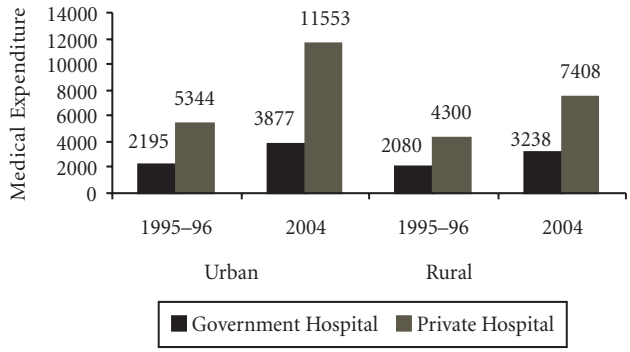
Source: NSSO 60th Round (2004).

FIGURE 3.1.11: Percentage of Cases of Hospitalized Treatment by Type of Hospital in Urban Areas



Source: NSSO 60th Round (2004).

FIGURE 3.1.12: Percentage of Treated Ailments Receiving Non-hospitalized Treatment from Government Sources



Source: NSSO 60th Round (2004).

FIGURE 3.1.13: Average Medical Expenditure (Rs) per Hospitalization Case

given more importance than comprehensive primary health care. The review of the plan not only throws light on the gap between the rhetoric and reality but also the framework within which the policies were formulated.

3.1.41 It was important to question whether it is only the low investment in health that is the main reason for the present status of the health system or is it also to do with the framework, design, and approach within which the policies were formulated. Keeping this in view the NRHM was launched.

3.1.42 The original approved health and family welfare outlay for the Tenth Plan CSS and CS was Rs 36378 crore. However, the sum of annual outlay increased to Rs 41585 crore. Against this, the actual expenditure has been Rs 34950.45 crore, that is, 84.05% of the sum of annual outlay. In 2005–06, all family welfare schemes and major disease control programmes were put under the umbrella of the NRHM. Scheme-wise details of Tenth Plan outlay and expenditure are provided in Annexures 3.1.1 and 3.1.2. State Plan outlay and expenditure during Tenth Plan have been provided in Annexure 3.1.3.

3.1.43 Review of the NRHM at the end of the Tenth Plan reveals that in order to improve the public health delivery, the situation needs to change on a fast track mode at the grassroots. The status as on 1 April 2007 is as under:

- 17318 Village Health and Sanitation Committees (VHSCs) have been constituted against the target of 1.80 lakh by 2007.
- No untied grants have been released to VHSCs pending opening of bank accounts by the Committees.
- Against the target of 3 lakh fully trained Accredited Social Health Activists (ASHAs) by 2007, the initial phase of training (first module) has been imparted to 2.55 lakh. ASHAs in position with drug kits are 5030 in number.
- Out of the 52500 Sub-centres (SCs) expected to be functional with 2 Auxiliary Nurse Midwives (ANMs) by 2007, only 7877 had the same.
- 9000 Primary Health Centres (PHCs) are expected to be functional with three staff nurses by 2007. This has been achieved at 2297 PHCs.
- There has been a shortfall of 9413 (60.19%) specialists at the CHCs. As against the 1950 CHCs expected to be functional with 7 specialists and 9 staff nurses by 2007, none have reached that level.
- CHCs have not been released untied or annual maintenance grant envisaged under the NRHM as they have not reached upto the expected level.
- Number of districts where annual integrated action plan under NRHM have been prepared for 2006–07 are 211.

Towards Finding Solutions

3.1.44 The Eleventh Five Year Plan will aim for inclusive growth by introducing National Urban Health

Mission (NUHM), which along with NRHM, will form *Sarva Swasthya Abhiyan*.

National Rural Health Mission (NRHM)

3.1.45 NRHM was launched to address infirmities and problems across primary health care and bring about improvement in the health system and the health status of those who live in the rural areas. The Mission aims to provide universal access to equitable, affordable, and quality health care that is accountable and at the same time responsive to the needs of the people. The Mission is expected to achieve the goals set under the National Health Policy and the Millennium Development Goals (MDGs).

3.1.46 To achieve these goals, NRHM facilitates increased access and utilization of quality health services by all, forges a partnership between the Central, State, and the local governments, sets up a platform for involving the PRIs and the community in the management of primary health programmes and infrastructure, and provides an opportunity for promoting equity and social justice. The NRHM establishes a mechanism to provide flexibility to the States and the community to promote local initiatives and develop a framework for promoting intersectoral convergence for promotive and preventive health care. The Mission has also defined core and supplementary strategies.

3.1.47 STRATEGIES OF NRHM

Core Strategies

- Train and enhance capacity of PRIs to supervise and manage public health services.
- Promote access to improved health care at household level through the female health activist (ASHA).
- Health Plan for each village through Village Health Committee of the Panchayat.
- Strengthen SC through an untied fund to enable local planning and action and more Multipurpose Workers (MPWs).
- Strengthen existing PHCs and CHCs and provide 30–50 bedded CHC per lakh population for improved curative care to a normative standard (Indian Public Health Service Standards [IPHS] defining personnel, equipment, and management standards).
- Prepare and implement an intersectoral District Health Plan prepared by the District Health Mission, including drinking water, sanitation, hygiene, and nutrition.
- Integrate vertical health and family welfare programmes at national, State, and district levels.
- Technical Support to National, State, and District Health Missions for Public Health Management.
- Strengthen capacities for data collection, assessment, and review for evidence-based planning, monitoring, and supervision.
- Formulate transparent policies for deployment and career development of Human Resources for health.
- Develop capacities for preventive health care at all levels for promoting healthy life styles, reduction in consumption of tobacco and alcohol, etc.
- Promote non-profit sector particularly in underserved areas.

Supplementary Strategies

- Regulation of private sector including the informal rural practitioners to ensure availability of quality service to citizens at reasonable cost.

Box 3.1.3
Sarva Swasthya Abhiyan

- NRHM has been launched for meeting health needs of all age groups and to reduce disease burden across rural India.
- NUHM will be launched to mmet the unmet needs of the urban population (28.6 crore in 2001 and 35.7 crore in 2011). As per the 2001 Census, 4.26 crore lived in urban slums spread over 640 towns and cities. The number is growing.
- NUHM based on health insurance and PPP will provide integrated health service delivery to the urban poor. Initially, the focus will be on urban slums. NUHM will be aligned with NRHM and existing urban schemes.
- Besides, Sarva Swasthya Abhiyan aims for inclusive growth by finding solutions for strengthening health services and focusing on neglected areas and groups.

Box 3.1.4
Five Planks of the NRHM

The Mission is expected to address the gaps in the provision of effective health care to rural population with a special focus on 18 States, which have weak public health indicators and/or weak infrastructure.

The Mission is a shift away from the vertical health and family welfare programmes to a new architecture of all inclusive health development in which societies under different programmes will be merged and resources pooled at the district level.

The Mission aims at the effective integration of health concerns with determinants of health like safe drinking water, sanitation, and nutrition through integrated District Plans for Health. There is a provision for flexible funds so that the States can utilize them in the areas they feel are important.

The Mission provides for appointment of ASHA in each village and strengthening of the public health infrastructure, including outreach through mobile clinics. It emphasizes involvement of the non-profit sector, especially in the under-served areas. It also aims at flexibility at the local level by providing for untied funds.

The Mission, in its supplementary strategies, aims at fostering PPPs; improving equity and reducing out of pocket expenses; introducing effective risk-pooling mechanisms and social health insurance; and taking advantage of local health traditions.

- Promotion of PPPs for achieving public health goals.
- Reorienting medical education to support health issues including regulation of Medical Care and Medical Ethics.
- Effective and viable risk-pooling and social health insurance to provide health security to the poor by ensuring accessible, affordable, accountable, and good quality health care.

3.1.48 The expected outcomes of NRHM are listed below:

- IMR—reduced to 30/1000 live births by 2012.
- Maternal Mortality—reduced to 100/100000 live births by 2012.
- TFR—reduced to 2.1 by 2012.
- Malaria Mortality Reduction—50% up to 2010, additional 10% by 2012.
- Kala-azar Mortality Reduction—100% by 2010 and sustaining elimination until 2012.
- Filaria/Microfilaria Reduction—70% by 2010, 80% by 2012, and elimination by 2015.
- Dengue Mortality Reduction—50% by 2010 and sustaining at that level until 2012.
- Cataract operations—increasing to 46 lakh until 2012.
- Leprosy Prevalence Rate—reduce from 1.8 per 10000 in 2005 to less that 1 per 10000 thereafter.
- Tuberculosis DOTS—maintain 85% cure rate through entire Mission Period and also sustain planned case detection rate.
- Upgrading all health establishments in the district to IPHS.
- Increase utilization of First Referral Units (FRUs) from bed occupancy by referred cases of less than 20% to over 75%.

3.1.49 Under the NRHM, it is planned to have:

- Over 5 lakh ASHAs, one for every 1000 population/large habitation, in 18 Special Focus States and in tribal pockets of all States by 2008
- All SCs (nearly 1.75 lakh) functional with two ANMs by 2010
- All PHCs (nearly 30000) with three staff nurses to provide 24 × 7 services by 2010
- 6500 CHCs strengthened/established with seven specialists and nine staff nurses by 2012
- 1800 Taluka/Sub Divisional Hospitals and 600 District Hospitals strengthened to provide quality health services by 2012
- Mobile Medical Units for each District by 2009
- Functional Hospital Development Committees in all CHCs, Sub Divisional Hospitals, and District Hospitals by 2009
- Untied grants and annual maintenance grants to every SC, PHC, and CHC released regularly and utilized for local health action by 2008

- All District Health Action Plans completed by 2008

3.1.50 In the Eleventh Five Year Plan, the emphasis under NRHM will not be on numerical achievements only but also on IPHS and enforcement of guidelines for improving the functioning of infrastructure being strengthened and created. It has been felt that the Mission Directors, both at the Centre and the States, should be officials with public health background, supported by the Civil Service cadres.

JANANI SURAKSHA YOJANA (JSY)

3.1.51 To change the behaviour of the community towards institutional delivery, the GoI, under NRHM in 2005, modified the National Maternity Benefit Scheme (NMBS) from that of a nutrition-improving initiative to the JSY. The scheme has the dual objectives of reducing maternal and infant mortality by promoting institutional deliveries. Though the JSY is implemented in all States and UTs, its focus is on States having low institutional delivery rate. The scheme is 100% centrally sponsored and integrates cash assistance with maternal care. It is funded through the flexi-pool mechanism. Under the NRHM, out of 184.25 lakh institutional deliveries in the country (as on 1 April 2007), JSY beneficiaries were 28.74 lakh.

3.1.52 While the JSY scheme is meant to promote institutional delivery, it has to take two critical factors into account, one being that India does not have the institutional capacity (International Institute of Population Sciences [IIPS], 2003) to receive the 26 million women giving birth each year, and the other being that around half of all maternal deaths occur outside of delivery, during pregnancy, abortions, and postpartum complications. If institutions are preoccupied with handling the huge numbers of normal childbirths, there will be inevitable neglect of life-threatening complications faced by women. They will be compelled to vacate beds in the shortest time. Consequently, complications during pregnancy and after childbirth will not be given attention. Second, JSY money sometimes does not reach hospitals on time, and as a result, poor women and their families do not receive the promised money.

National Urban Health Mission (NUHM)

3.1.53 The NUHM will meet health needs of the urban poor, particularly the slum dwellers by making available to them essential primary health care services. This will be done by investing in high-caliber health professionals, appropriate technology through PPP, and health insurance for urban poor.

3.1.54 Recognizing the seriousness of the problem, urban health will be taken up as a thrust area for the Eleventh Five Year Plan. NUHM will be launched with focus on slums and other urban poor. At the State level, besides the State Health Mission and State Health Society and Directorate, there would be a State Urban Health Programme Committee. At the district level, similarly there would be a District Urban Health Committee and at the city level, a Health and Sanitation Planning Committee. At the ward slum level, there will be a Slum Cluster Health and Water and Sanitation Committee. For promoting public health and cleanliness in urban slums, the Eleventh Five Year Plan will also encompass experiences of civil society organizations (CSO) working in urban slum clusters. It will seek to build a bridge of NGO–GO partnership and develop community level monitoring of resources and their rightful use. NUHM would ensure the following:

- Resources for addressing the health problems in urban areas, especially among urban poor.
- Need based city specific urban health care system to meet the diverse health needs of the urban poor and other vulnerable sections.
- Partnership with community for a more proactive involvement in planning, implementation, and monitoring of health activities.
- Institutional mechanism and management systems to meet the health-related challenges of a rapidly growing urban population.
- Framework for partnerships with NGOs, charitable hospitals, and other stakeholders.
- Two-tier system of risk pooling: (i) women's *Mahila Arogya Samiti* to fulfil urgent hard-cash needs for treatments; (ii) a Health Insurance Scheme for enabling urban poor to meet medical treatment needs.

3.1.55 NUHM would cover all cities with a population of more than 100000. It would cover slum dwellers; other marginalized urban dwellers like rickshaw pullers, street vendors, railway and bus station coolies, homeless people, street children, construction site workers, who may be in slums or on sites.

3.1.56 The existing Urban Health Posts and Urban Family Welfare Centres would continue under NUHM. They will be marked on a map and classified as the Urban Health Centres on the basis of their current population coverage. All the existing human resources will then be suitably reorganized and rationalized. These centres will also be considered for upgradation.

3.1.57 Intersectoral coordination mechanism and convergence will be planned between the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and the NUHM.

Strengthening Existing Health System

3.1.58 There is need to shift to decentralization of functions to hospital units/health centres and local bodies. The States need to move away from the narrow focus on the implementation of budgeted programmes and vertical schemes. They need to develop systems that comprehensively address the health needs of all citizens. Thus, in order to improve the health care services in the country, the Eleventh Five Year Plan will insist on Integrated District Health Plans and Block Specific Health Plans. It will mandate involvement of all health related sectors and emphasize partnership with PRIs, local bodies, communities, NGOs, Voluntary and Civil Society Organizations.

PRIMARY HEALTH CARE

3.1.59 During the Eleventh Five Year Plan, major focus will be on NRHM initiatives. Efforts will be made for restructuring and reorganizing all health facilities below district level into the Three Tier Rural Primary Health Care System. These will serve the populations in a well-defined area and have referral linkages with each other. Population-centric norms, which continue to drive the provisioning of health infrastructure, will be modified. These will be replaced with flexible norms comprising habitation-based needs, community-based needs, and disease pattern-based needs. Steps will also be taken to reorganize Urban Primary Health Care Institutions and make them responsible for the health care of people living in a defined geographic area, particularly slum dwellers.

3.1.60 The Approach Paper on Eleventh Five Year Plan stated accessibility as a major issue, especially in rural areas, where habitations are scattered and women and children continue to die en route to hospital. Policy interventions, therefore, have to be evidence based and responsive to area specific differences as shown in Assam (Box 3.1.5). Concerted action will be taken such as enabling pregnant women to have skilled attendance at birth and receive nutritional supplements. PHCs and CHCs will be connected by all weather roads so that they can be reached quickly in emergencies (accessibility to hospital would be measured in travel time, not just distance from nearest PHC). Home-based neonatal care will be provided, including emergency life saving measures. Achievement of health objectives will, therefore, involve much more than curative or even preventive health care, an integrated approach will be adopted.

3.1.61 The Eleventh Five Year Plan will ensure availability of essential drugs and supplies, vaccines, medical equipment, along with the basic infrastructure like electricity, water supply, toilets, telecommunications, and computers for maintaining records. All States will be encouraged to implement the Tamil Nadu model in which close to 58% of the health centres are functioning round the clock. Success models of various States such as higher salary to health workers posted in tribal regions of Himachal Pradesh and KBK districts of Orissa can be considered and replicated.

3.1.62 Tribal population in India is considered to be the most socio-economically disadvantaged group. The National Population Policy (2000) has made special mention of tribal areas in terms of improving basic health and Reproductive and Child Health (RCH) services. In order to ensure adequate access to health care services for the tribal population, apart from dispensaries and mobile health clinics, 20284 SCs, 3230 PHCs, and 750 CHCs have been established.

Box 3.1.5
***Akha*—Ship of Hope**

On the *saporis* or river islands of Assam that are inundated with floods every time the mighty Brahmaputra unleashes its fury, life is a constant struggle against disease and deprivation. Some 30 lakh people live in 2300 remote, floating villages on the Brahmaputra in Upper Assam. Here, there are no functional *anganwadis*, no health centres, no schools, no power, not even drinking water. Till recently, immunization, Antenatal Care (ANC), disease management, and treatment were all unheard of. Then in 2005 the Centre for North East Studies and Policy Research intervened. They partnered with NRHM, UNICEF, and the government of Assam, to start Akha (meaning hope in Assamese)—a 22-metre long, four-metre wide ship that carries hope and health care to 10000 forgotten people in Tinsukhia, Dhemaji, and Dibrugarh districts of Upper Assam. The 120 hp powered Akha has an Out Patient Department (OPD) room, cabins for medical staff and ship crew, medicine storage space, a kitchen, two toilet cum bathrooms, and a general store. A generator set and 200 litre water reservoir are also installed to ensure that the medical team that travels to the saporis has adequate power and water supply.

The idea behind Akha is simple—use the river to tackle the problems and challenges created by it. Doctors and ANMs who are unwilling and unable to survive on these remote islands, live on this ship stocked with medicine and other supplies and hold health camps on the saporis. They immunize, treat, provide medicines, and advise people on preventive measures. They even take critically ill patients to the nearest health centre in Dibrugarh.

In less than two years, Akha has provided succour to many. If we can upscale this innovative intervention under NRHM, health care will no longer be a distant reality for the people living on this highly volatile river. It can be upscaled to include a hospital ship with diagnostic facilities, in patient ward and operation theatre. Then health care would become truly inclusive.

Most of the centrally sponsored disease control programmes have a focus on the tribal areas. In spite of all this, tribal communities have poor access to health services and there is also underutilization of health services owing to social, cultural, and economic factors. Some of the problems include difficult terrain, locational disadvantage of health facilities, unsuitable timings of health facilities, lack of Information, Education, and Communication (IEC) activities, lack of transport, etc.

3.1.63 Challenges such as demand side constraints, human resource development issues, and the providers' attitude are particularly acute in tribal areas. During the Eleventh Five Year Plan, therefore, renewed efforts will be made to provide need-based quality integrated health and family welfare services, improvement of service coverage, promotion of community participation, encouragement of tribal system of medicine under AYUSH and replication of successful efforts (See Box 3.1.6).

3.1.64 The challenge of increasing urbanization with growth of slums and low-income families in cities has made access to health care for the urban poor a priority of the Eleventh Five Year Plan. Therefore, the thrust during the Eleventh Five Year Plan will be to locate the services in or around urban slums, Minorities, and SC *bastis* and SC concentration areas having 20% or more SC/ST population. With a view to improving health status of people in urban slums, the Eleventh Five Year Plan will provide support to the Comprehensive Project Implementation Plan (PIP) for vulnerable groups, which covers population in urban slums and other vulnerable groups in cities and towns with a population up to one lakh. The Plan will develop mechanism to address this particular issue. This will be in addition to the NUHM described above.

3.1.65 In order to meet the objectives of reducing various types of inequities and imbalances, interregional and rural–urban, the Eleventh Five Year Plan will increase the sectoral outlay in the primary health sector. While recognizing the role of primary heath sector, the National Health Policy (2002) sets out an increased allocation of 55% of the total public health outlay for primary care; the secondary and tertiary health sectors being targeted for 35% and 10% respectively. The Policy also states that the increased aggregate outlays for primary health care should be utilized for strengthening existing facilities and opening additional public health service outlets, consistent with the norms.

Box 3.1.6
Cultural Alignment

Often cultural alienation coupled with the apathy of doctors drives the tribals away from big hospitals and government health care facilities. The best way of delivering health care to the tribals is to do so in an environment that is familiar to them. This is what has been done in Gadchiroli. The SEARCH hospital is a habitat of huts built between trees. The reception area resembles a *Ghotul*—the traditional place for social and cultural events in a Gond village. The patients don't stay in wards but in individual huts with their families. Everything from bedsheets to towels is of khadi. The tribals often feel isolated and scared in big buildings. Here, surrounded by their natural environment and loved ones, patients feel at home. The result: thousands of tribal patients from 10 blocks of Chandrapur and Gadchiroli flock to this hospital for treatment.

SEARCH has also demonstrated how tribal beliefs can be used to disseminate health education. Every year, a *jatra* is organized in Shodhgram (SEARCH campus at Gadchiroli) in honour of Goddess Danteshwari, the deity revered by tribals. Representatives from as many as 40 tribal villages participate in this jatra. At the end of it, an *Aarogya Sansad* is held where the tribals are asked to enumerate their health concerns. After voting, one health problem is identified as the year's priority. Representatives then go back to the villages and start working on the identified problem. This is regarded as a command from the Goddess herself which no one can oppose. For instance, one year, the tribals voted for eradication of malaria. They were shocked to learn that malaria was caused by a mosquito bite and immediately wanted to know how to check the breeding of mosquitoes. By communicating with the tribals in a language that they understand, SEARCH has been able to tackle many superstitions and unhealthy practices.

3.1.66 Under the NRHM, emphasis has been given to allocate 70% of the total financial resources to below district level (block level and below), 20% at district level, and 10% at State level. Efforts will be made to allocate funds under various schemes and programmes as per NRHM guidelines. Further, the requirements of funds for a fully functional primary health care system (defined as all services at block level and below, including field-based implementation of disease control and preventive activities, but not administration) will also be worked out.

SECONDARY AND TERTIARY HEALTH CARE

3.1.67 Secondary and Tertiary health care will receive attention. There is an urgent need to take a fresh look at how public and private sector can be better utilized during the Eleventh Five Year Plan. The NRHM addresses these issues through a few strategies. Priorities will be given to strategies involving PPPs, risk-pooling mechanisms, and cross subsidization.

3.1.68 Administration of the secondary and tertiary care hospitals will be professionalized and trained professionals posted as Medical Superintendents. Hospitals will be allowed to recruit various staff including junior doctors on ad hoc and contract basis. Drugs purchase should be made through centralized rate contract and decentralized distribution with zero stock at headquarter level. Emergency and disaster stock should be located at each hospital. Drugs at all levels with minimum of one year shelf life should be supplied.

3.1.69 District hospitals, which play a key role in providing health services to the poor, need substantial improvement in infrastructure and other facilities to perform their role more effectively. This would also be a key intermediate step in the health strategy, till the vision of health care through PHCs and community health centres is fully realized. The Plan will also complete setting up of 6 AIIMS-like institutions, upgrading 13 existing medical institutes under the *Pradhan Mantri Swasthya Suraksha Yojana* (PMSSY) and strengthening the Central Government hospitals. Adoption of PPP mode will be explored for these activities.

3.1.70 It is often observed that Government Medical Colleges and Hospitals are on the verge of de-recognition mainly because they fail to adhere to the infrastructure, equipment, and staff norms, as laid down by MCI. This is thought to be due to lack of funding. The Centre and States will have to make provisions for strengthening these institutions.

3.1.71 During the Eleventh Five Year Plan period, the following will receive priority:

- Establishment of Hospital Development Committees in all government hospitals.
- Improvement of infrastructure and facilities in district hospitals.
- Provision of high-quality secondary health care services for every block in the country.
- Creation of state-of-the-art medical education, research, and care institutions in all disciplines of medicine.
- Creation of new institutions and upgradation of existing tertiary care hospitals.
- Mainstreaming of AYUSH systems to actively supplement the efforts of the allopathic systems.

ACCESS TO ESSENTIAL DRUGS AND MEDICINES

3.1.72 Drugs and medicines form a substantial portion of the out-of-pocket spending on health by households (Table 3.1.7). The poor are the worst affected because they are frequently affected by diseases and are least able to purchase and utilize the health services, such as drugs. On the other hand, the component of drugs and medicines accounts for a mere 10% of the overall health budget of both the Central and State Governments. Timely supply of drugs of good quality that involves procurement as well as logistics management is of critical importance in any health system.

3.1.73 An essential component of strengthening primary health facilities will be a system of guaranteeing essential drugs. Standard treatment guidelines will be available for doctors at PHCs and CHCs. Under the NRHM, experiences of efficient procurement and distribution could be rapidly adapted and generalized to all States. Although the World Health Organization (WHO) has its essential list of drugs yet all of these are not required at all levels. Each State will decide for each level the essential list based on epidemiological situation. Availability of essential drugs in every PHC and CHC will increase people's confidence in the public health system.

3.1.74 Analysis of drug prices indicates that publicly procured drugs are cheaper. Assuring regular supply of drugs in public facilities would improve utilization of public sector services and reduce out-of-pocket expenditures. The NCMP also committed to ensure availability of life saving drugs at reasonable prices. During the Eleventh Five Year Plan, all efforts will be made to encourage States to model the public procurement systems on the lines of the Tamil Nadu Medical Services Corporation (Box 3.1.7). Efforts will be made to experiment available models in Rajasthan and Delhi for making drugs available to hospital at cheaper rates. In order to take up drug pricing, quality, clinical trials, etc. as recommended by the Mashelkar Committee (2003) and NCMH (2005), a National Drug Authority (NDA) with an autonomous status was to be set up during the Plan. Accordingly, Central Drugs Authority of India has been set up. The present National Pharmaceutical Pricing Authority, created under the aegis of the Ministry of Chemicals and Fertilizers, is proposed to be merged with the NDA. The Central Government will provide assistance to States for strengthening the drug regulatory system. During the Plan, the following will be emphasized:

- Developing essential drug lists for all levels of institutions
- Making available essential drugs of good quality in adequate quantities in all government health facilities
- Increasing efficiency, economy, and transparency in drug procurement, warehousing, and distribution
- Initiating strategies in coordination with professional and consumer bodies to ensure safe drugs and rational use of drugs
- Disseminating information on essential drugs to medical professionals, pharmacists, and to the people
- Including all essential drugs under a system of price monitoring
- Implementing and reinforcing the concept of Standard Treatment Guidelines in the in-service and pre-service training programmes of the doctors and health workers.

FOOD SAFETY AND QUALITY CONTROL

3.1.75 To tackle the issues of pesticide residues in food/beverages, additives and contaminants, and nutritional

TABLE 3.1.7
Percentage Share of Household Expenditure on Health and Drugs in Various States

State	Share of Health to Total Household Expenditure		Share of Drug Expenditure to Total Household Health Expenditure	
	Rural	Urban	Rural	Urban
Andhra Pradesh	6.56	4.13	72.42	71.36
Assam	2.47	4.04	70.65	68.49
Bihar	4.40	2.96	89.14	82.16
Delhi	3.34	3.34	61.83	72.69
Goa	4.28	5.16	79.19	73.87
Gujarat	5.03	4.22	63.90	69.56
Haryana	6.99	6.56	76.80	76.28
Himachal Pradesh	5.25	3.91	88.96	74.39
J&K	2.90	3.61	90.39	81.33
Karnataka	4.58	4.17	68.75	55.96
Kerala	7.79	7.15	71.83	64.05
MP	6.05	5.25	81.28	78.21
Maharashtra	7.50	5.98	68.75	59.08
Orissa	5.46	4.51	90.64	90.26
Punjab	7.66	5.60	79.47	73.90
Rajasthan	4.79	4.70	89.43	83.88
Tamil Nadu	5.80	4.45	61.41	61.44
UP	8.20	5.64	86.76	81.47
WB	4.64	4.84	72.89	67.80
All India	6.05	4.91	77.33	69.18

Source: NCMH (2005).

Box 3.1.7
Essential Drug Supply—Tamil Nadu Experience

Activities

Finalizing list of Essential Drugs selected from the model list by the WHO
Ensuring adequate funds and human resources for supply of drugs from its warehouses to various points of health care delivery
Testing drugs for quality
Supplying drugs only in strips and blister packing
Selecting drugs on the basis of disease pattern, safety, effectiveness, and cost
Including only generic drugs
Making proper arrangements for storage of drugs in modern warehouses
Training the pharmacists regarding storage and distribution of drugs
Revising store keeping procedures and storing drugs according to the first come-first out basis and according to their generic name

Achievements

Preparation of the Essential Drugs list, catering to varying needs of different levels of health care
Provision of good quality, generic drugs
Provision of drugs specific to the need and level of health care
Rational use of drugs
Availability of accurate up to date stock information on the computer
Linkage of all warehouses telephonically with the TNMSC headquarters in Chennai

labelling, following actions will be undertaken during the Eleventh Five Year Plan:

- Creating Food Safety Authority for speedy enforcement of safety standards.
- Ensuring implementation of Capacity Building Project with the objective to enhance capacities in laboratories, awareness of food safety, and hygiene.
- Strengthening State labs, capacity building, food portal, comprehensive and informative/analytical database.
- Rationalizing protocol for establishment of labs for food safety.
- Implementing the Food Safety and Standards Act, 2006.

Decentralized Governance

ROLE OF PRIs

3.1.76 PRIs have the mandate to manage the primary health system. Communitiza-tion through ownership by PRIs is necessary for an efficient and effective health system. Implementation of the NRHM will have to be closely watched to ensure that the involvement of Panchayats is total and complete. The various tiers of PRIs will decide the local priorities and also supervise functioning of health facilities, functionaries, and functions through their participation in various committees.

3.1.77 Since one-third of elected members at the local bodies are women, this is an opportunity to promote a gender-sensitive, multi-sectoral agenda for population stabilization with the help of village level health committees. All this will remain rhetoric until the elected women are trained and empowered. Under the NRHM, ASHAs are envisaged to be selected by and be accountable to the village Panchayats. Involvement of PRIs will also be necessary to improve the coverage and quality of registration of births, deaths, marriages, and pregnancies in all States.

3.1.78 During the Eleventh Five Year Plan, decentralization of resources to Panchayats or local representative bodies will be implemented in a phased manner to make decentralized planning a living reality.

ROLE OF CIVIL SOCIETY

3.1.79 Community Based Health Partnership is the key to sustaining health action even with limited resources. This can take many forms, through the PRIs, community-based and NGOs, and of people participating at all levels of health interventions. This cannot be achieved only by giving financial and administrative powers to the Panchayats, it needs active participation of the people for local action. Partnership with community groups (through youth, *mahila mandal*s, SHGs, and Gram Sabhas) is necessary for local solutions to local problems. In this regard, successful communitization of health services in Nagaland should be studied and replicated (Box 3.1.9).

3.1.80 The NRHM envisages community participation such as described above. Under the framework for implementation, the Mission tries to ensure that more than 70% of the resources are spent through bodies that are managed by peoples' organizations and at least 10% of the resources are spent through grants-in-aids to NGOs. The mechanism of untied funds at the local level is meant to give them a little flexibility. During the Eleventh Five Year Plan, efforts will be made to promote various community-based initiatives.

Affecting Convergence

3.1.81 Clean drinking water is vital as unsafe water increases the risk of diseases and malnutrition. Waterborne infections hamper absorption of food even when intake is sufficient. Rural water supply is beset with the problem of sustainability, maintenance, and water quality. Though more than 95% coverage was achieved prior to Bharat Nirman, out of the 14.22 lakh habitations in the country about 1.66 lakh have slipped back to a position where people do not have adequate water to drink and have to walk more than 2 km to fetch potable water. Similarly, about 1.86 lakh habitations are dependent on contaminated water supply, which leads to various health problems.

3.1.82 Lack of sanitation is directly responsible for several waterborne diseases. Rural sanitation coverage was 1% in the 1980s. With the launch of the Central Rural Sanitation Programme in 1986, the coverage improved

Box 3.1.8
Role of PRIs

Nearly three-fourths of the population of the country lives in villages. This rural population is spread over more than 10 lakh habitations of which 60% have a population of less than 1000. For the success of Sarva Swasthya Abhiyan, the reform process would have to touch every village and every health facility. This would be possible only when the community is sufficiently empowered to take leadership in health matters.

PRIs, right from the village to district level, would have to be given ownership of the public health delivery system in their respective jurisdictions. Some States like Kerala, WB, Maharashtra, and Gujarat have already taken initiatives in this regard and their experiments have shown the positive gains of institutionalizing involvement of PRIs in the management of the health system.

The NRHM empowers the PRIs at each level that is, Gram Panchayat, Panchayat Samiti (Block), and Zilla Parishad (District) to take leadership to control and manage the public health infrastructure at district and sub district levels in the following ways:

- A VHSC in each village within the over all framework of Gram Sabha in which proportionate representation from all the hamlets would be ensured. Adequate representation is given to the disadvantaged categories like women, SCs, STs, OBCs, and Minorities.
- Sub Health Centre is accountable to the Gram Panchayat and shall have a local committee for its management, with adequate representation of VHSCs.
- PHC, which is not at the block level, will be responsible to the elected representative of the Gram Panchayat where it is located. All other Gram Panchayats covered by the PHCs would be suitably represented on its management.
- The Block level PHC and CHC will have involvement of Panchayati Raj elected leaders in its management. The *Rogi Kalyan Samiti* would manage day-to-day affairs of the hospital.
- The Zilla Parishad at the district level will be directly responsible for the budgets of the health societies and for planning for people's health needs.
- With the development of capacities and systems, the entire public health management at the district level would devolve to the District Health Society which would be under the effective leadership and control of the district Panchayat, with participation of the block Panchayats.

To empower and facilitate local action, the NRHM provides untied grants at all levels, namely, Village, SC, PHC, and CHC. Monitoring committees will be formed at various levels, with participation of PRI representatives, user groups, and CBO/NGO/VO representatives to facilitate their inputs in the monitoring planning process. They will enable the community to be involved in broad-based review and suggestions for planning. A system of periodic *Jan Sunwai* or *Jan Samvad* at various levels has been built in to empower community members to engage in giving direct feedback and suggestions for improvement in public health.

Box 3.1.9
Communitization in Nagaland

The health SC in Mopungchuket village in Mokokchung district of Nagaland is a beautifully and aesthetically constructed building made from local materials. This village of almost 6000 people felt an acute need for health care. So, in 2002 when communitization started, the community collected Rs 2.83 lakh through contributions to run the SC. They donated a building. Two ANMs, one ASHA, and a pharmacist run the SC. They are always present. The building is spic and span. A room has been created and a few beds put in for patients. Deliveries also take place here. The records of all patients, along with their health problems, line of treatment, and medications prescribed are meticulously maintained in neat registers. The centre never falls short of medicines and essential drugs. If the government supply is delayed, the community pools in money to purchase drugs.

to 4% in 1988 and then to 22% in 2001. It is now acknowledged that unless 100% coverage is achieved and proper solid waste management (SWM) carried out, health indicators will not show significant improvement. Toilets are essential also for ensuring the safety and dignity of girls and women. Lack of adequate number of toilets with privacy affects the school dropout rate of girl child. The solution, therefore, is to provide clean drinking water and adequate sanitation coverage throughout the country by adoption of a convergent approach by VHSCs under the NRHM.

3.1.83 During the Eleventh Five Year Plan, the Ministry of Health and Family Welfare (MoHFW) will take up a Programme for Prevention and Control of Water Borne Diseases as a part of Sarva Swasthya Abhiyan, which will establish a mechanism of collaboration with other departments (for supplying safe water to community and carry out water quality monitoring), with specific responsibilities. The targets are: (i) by 2010, to reduce the burden of waterborne diseases to 75% of the present level; and (ii) by 2015, to reduce the burden of waterborne diseases to 50% of the present level. In order to achieve 100% coverage of clean water and sanitation, Eleventh Five Year Plan strategies include:

- Convergence of health care, hygiene, sanitation, and drinking water at the village level through VHSCs under NRHM.
- Renewed efforts under NUHM to cover primary health care, safe drinking water, and sanitation in urban areas.
- Participation of stake holders at all levels, from planning, design, and location to implementation and management of the projects.
- Institutionalization of water quality monitoring and surveillance systems by involving PRIs, community, NGOs, and other CSO.
- Increased attention to Behavioural Change Communication.
- Linking treatment of sewage and industrial effluents to development planning.

Enhancing PPP

3.1.84 During the last few years, the Centre as well as the State Governments have initiated a wide variety of PPP arrangements to meet peoples' growing health care needs (few examples provided in Box 3.1.10). Besides these examples, services like cleaning and maintenance of buildings, security, waste management, scavenging, laundry, diet have been contracted out to the private sector by many States.

3.1.85 The existing evidence for PPP does not allow easy generalization. Contracting is the predominant model for PPP in India. Some partnerships are simple contracts (like laundry, diet, cleaning, etc.), others are more complex involving many stakeholders with their respective responsibilities. For example, the Yeshaswini Health Insurance scheme for farmers in Karnataka includes the State Department of Cooperatives, the Yeshaswini Trust with its almost 200 private hospitals, a corporate Third Party Administrator (TPA), and beneficiaries with the eligibility conditions. It is seen that in most partnerships, the State Health Department is the principal partner with limited stakeholder consultation. However, true partnerships that mean equality among partners, mutual commitment to goals, shared decision making, and risk taking are rarely seen.

3.1.86 Findings of existing case studies also bring forth concerns such as absence of the beneficiary in the entire process, lack of effective governance mechanisms for ensuring accountability, non transparent mechanisms, lack of appropriate monitoring and governance systems, and institutionalized management structures to handle the task. For example, while contracting out PHCs, the State Governments sometimes hand over the worst performing PHCs to NGOs. Not paying the initial instalment to NGOs at the start of the project is another problem. The NGOs are never sure whether the money will eventually be released and if so, how much to expect. Management of health facilities should be handed over to NGOs only if the process is completely transparent and there is a strong local monitoring mechanism. This is the objective of Government–NGO partnership envisaged in the Eleventh Five Year Plan.

3.1.87 During the Eleventh Five Year Plan, the experience of PPP initiatives in selected States will be studied thoroughly. Based on evidence, efforts will be made

Box 3.1.10
Public–Private Partnership (PPP)

- Rajasthan:
  Partners: Medicare Relief Society, SMS Hospital, Jaipur, and Vardhman Scanning and Imaging Private Ltd.
  Services: Contracting in Radiological diagnostic services in the public hospitals.
  Provision of quality drugs and supplies cheaper than market rate. All this free for BPL patients above 70 years of age and freedom fighters; pre-negotiated rates for others.
- West Bengal:
  Partners: Government of West Bengal, Mediclue, District Health & FW Societies, Private partners, M/S Doctors Laboratory and Non Profit NGOs.
  Services: CT Scan in seven medical colleges, MRI in one medical college hospital, diagnostic facilities in 30 rural hospitals, and running of 133 ambulances for emergency transport under management of NGOs/CBOs at the level of Block PHCs.
- Uttarakhand:
  Partners: Government of Uttarakhand, DST, GoI and Uttaranchal Institute of Scientific Research, Bhimtal (NGO).
  Services: Mobile Health Services—Diagnostic, Laboratory, and Clinical Services through mobile vans. Dedicated health camps in 6 districts of western part of Uttarakhand.
- Karnataka:
  Partners: Government of Karnataka and Apollo Hospitals Enterprises Ltd, Hyderabad Rajiv Gandhi Super Specialty Hospital, Raichur handed to Apollo Hospital under management contract.
  Services: 350 bedded hospital. Free services to BPL patients, 40% beds for BPL (government reimburses the charges) and remaining patients treated under special rates.
  Partners: Government of Karnataka & Karuna Trust.
  Services: Contracting out adoption and management of PHCs and affiliated SCs in remote, rural, and tribal areas in the State.
  24 hrs health services—OPD, emergency services, electrocardiogram (ECG), X-ray, laboratory, immunization, national health programmes, RCH programme, 20 bed patient ward, and ambulance.
- Gujarat:
  Partners: Government of Gujarat and Private Doctors (Obstetricians and Gynecologists).
  Services: Chiranjeevi Yojana: Private Doctors (Obstetricians) are contracted for deliveries both normal and caesarian of BPL women at their facilities.
- Arunachal Pradesh:
  Partners: Government of Arunachal Pradesh & VHAI, Karuna Trust, Future Generations, and Prayas.
  Services: Management of selected PHCs.
- Andhra Pradesh:
  Partners: Government of Andhra Pradesh and Social Action for Integrated Development Services, Adilabad (NGO)
  Services : Urban Slum health care project. Contracting in (performance contract but without any public premises being handed over to the private partner).
  Partners: Government of Andhra Pradesh & New India Assurance Company.
  Services : Arogya Raksha Scheme based on vouchers.
  Funded by the government, operational management by the public sector company, and service delivery by private health service providers.
- Tamil Nadu:
  Partners: Government of Tamil Nadu & the Seva Nilayam Society in association with Ryder-Cheshire Foundation (NGOs).
  Services: Performance contract for the provision of emergency ambulance services in the region. Ambulances are owned by the government.

Note: FW = Family Welfare.

to develop a generic framework for different categories of PPPs at primary, secondary, and tertiary levels of health care to improve cost-effectiveness, enhance quality, and expand access through extensive stakeholder consultations. Contracting out well-specified and delimited projects such as immunization can help enhance accountability. Setting up of diagnostic and therapeutic centres (facilities that are not available in hospital) by private players in hospital premises will be encouraged. Government may consider giving them an infrastructure status in those geographical areas by providing incentives like land at concessional rates, increasing floor area ratio and ground coverage, tax holiday, and loan at concessional rates. However, emphasis would be on model contractual agreements with specific performance requirements to be measured by the civil society. Costs will be built in.

Health Insurance: Protecting the Poor

3.1.88 In India, due to huge geographical area, very large population, and inequity of resources, ensuring good health for all, particularly the poor, is a complex issue. Our health system is a mix of the public and private sectors, with the NGOs and civil society still playing a very small (though important) role.

3.1.89 The 60th Round of the NSSO (2004–05), has clearly brought out the fact that in rural government hospitals, an out-of-pocket expenditure of more than Rs 3000 is made during every hospitalization. In rural private hospitals, it is more than Rs 7000. The expenditure in the urban areas in private hospitals is more than Rs 11000 and about three times higher than the public hospitals. Today, this expenditure would have increased substantially. Private out-of-pocket expenditure can be reduced through Comprehensive Health Insurance, on a risk pooling basis for all, particularly the poor.

3.1.90 Coverage of health insurance in India is pathetically limited. Current health insurance in government and private sector covers around 11% of the population. The existing Employees State Insurance Scheme, Central Government Health Scheme (CGHS), and Ex-Servicemen Contributory Health Scheme provide services to industrial workers, government employees, and ex-Armed Forces Personnel along with their families. Mediclaim covers mainly the upper-middle income groups. Private health insurance schemes are mainly urban oriented and they have problems like unaffordable premiums, delay in settling claims, non-transparent procedures in deciding reimbursements, etc. Even though the system of TPAs has facilitated cash payments and expanded access to providers it is yet to show evidence of having been able to control cost or provide appropriate care.

ENCOURAGE COMMUNITY RISK-POOLING

3.1.91 Providing financial protection to the poor during hospitalization will have an immediate impact on alleviating indebtedness. Local governments will identify population at risk and provide a revolving fund to be managed by a consortium of SHGs. This consortium would also encourage small savings by households and whenever required, give needy households, a cash support of Rs 5000 to Rs 10000 for hospitalization, catastrophic illness, and death. This will save households from immediate financial debt at the point of crisis. They would repay this money at a modest interest rate within an appropriate time frame so that the village health risk pool does not fall below Rs 1 lakh. During the Plan, pilots will be undertaken in selected States under NRHM and NUHM. The scheme will empower SHGs, enable households to access micro-credit, and also recover from financial stress during treatment of illness.

COMMUNITY BASED HEALTH INSURANCE (CBHI)

3.1.92 Evidence suggests that well-designed and managed CBHI schemes coupled with behavioural change campaigns and other interventions increase the quality of health care. Easy and low cost accessibility to health care can protect the households from indebtedness arising from high medical expenditure. These schemes can be implemented in areas where institutional capacity is too weak to organize mandatory nation-wide risk pooling.

3.1.93 CBHI is 'any not-for-profit insurance scheme that is aimed primarily at the informal sector and formed on the basis of a collective pooling of health risks and the members participating in its management'. What distinguishes these schemes from

public or private-for-profit insurance schemes is that the targeted community is involved in defining the contribution amount and collecting mechanism, content of benefit package, and allocating the scheme's financial resources.

3.1.94 CBHI schemes in India are very diverse in nature in terms of design, management, and size of the targeted population. ACCORD, BAIF, Karuna Trust, Self Employed Women's Association (SEWA), DHAN Foundation, and VHS are some examples. Experience of current CBHI schemes in India reveals that area specific schemes should be developed according to the local requirements. These schemes should be tailored to the reality of the poor, and organized according to their convenience. During the Plan, CBHI schemes through the public system and by accredited private providers will be encouraged.

HEALTH INSURANCE FOR THE UNORGANIZED SECTOR

3.1.95 We have a huge working population of about 400 million. Almost 93% of this work force is in the unorganized sector. There are numerous occupational groups in economic activities, passed on from generation to generation, scattered all over the country with differing employer–employee relationship. Those in the organized sector of the economy, whether in the public or private sector, have access to some form of health service coverage. The unorganized sector workers have no access. The National Commission for Enterprises in the Unorganized Sector (NCEUS) has recommended a specific scheme for health in incidences of illness and hospitalization for workers and their families.

3.1.96 The Eleventh Five Year Plan will introduce a new scheme based on cashless transaction with the objective of improving access to health care and protecting the individual and her family from exorbitant out-of-pocket expenses. Under the scheme, coverage will be given to the beneficiary and her family of five members. Providers will be both public and private.

MATERNITY HEALTH INSURANCE

3.1.97 During the Eleventh Five Year Plan, the Maternity Health Insurance Scheme as an initiative across a few States is expected to be implemented. This scheme is premised on capitation-based financing, where the provider is assured a fixed per capita payment in respect of all those who enrol for maternity care. All pregnant women belonging to BPL families will be covered under this scheme. They would register with the ANM and simultaneously identify from a list of diverse accredited providers, any institutional facility in the public or private sector, which will look after her during her pregnancy. The ANM will complete the antenatal check in consultation with the facility identified. The capitation fee for the pregnant women in the BPL category will be borne by government. This intervention will improve outcomes for maternal and infant mortality by ensuring that the complete cycle of maternity care in particular for the poor, is handled by a qualified institutional provider. More specifically, this intervention will increase institutional deliveries and lower maternal mortality, empower women with improved access to reproductive health care, enable and facilitate women to adopt postpartum terminal methods of family planning if they need to. It will stimulate development of accredited health infrastructure accessible in rural and remote areas, facilitate partnerships, and finally, improve the responsiveness and accountability of public sector facilities.

Central Government Health Scheme (CGHS)

3.1.98 CGHS was started in 1954 and at present 24 cities are covered with total of 9.12 lakh card holders and 33.01 lakh beneficiaries (as on 31 March 2006). 72.5% card holders are serving employees, 25.4% are pensioners, and rest belong to the categories such as freedom fighters, Members of Parliament (MPs), ex-MPs, journalists, and others. Services covered under CGHS include hospitalization, outpatient consultation and treatment, diagnostics, drugs, etc. For these services there are 247 allopathic dispensaries, 82 AYUSH dispensaries, 19 polyclinics, and 65 laboratories in the cities covered. For hospitalization, the services are largely outsourced to selected private hospitals, all government hospitals are included. Out Patient Department (OPD) and diagnostic services are also partly outsourced to selected private hospitals and diagnostic centres.

3.1.99 Mid Term Appraisal for the Tenth Plan has made the following recommendations regarding CGHS:

- Restructure, reform, and rejuvenate.
- Existing subscribers be given the option to either continue or switch over to a system of health insurance.
- Greater autonomy to the CGHS to enable it to develop various options for reducing costs in providing services and trying different models of service delivery.

3.1.100 To reform CGHS, a number of new initiatives have been taken. A pilot project on computerization has been completed. This would help weeding out large number of duplicate cards, online indenting, and billing of medicines, reducing supply time from three days to one day, and reduction in waiting time for the beneficiaries. All dispensaries are being networked to allow beneficiary treatment from any dispensary. Database on disease profile of beneficiary, reimbursement claims, prescribing and referring, pattern of medical officers (MO), billing pattern of panel hospitals, diagnostic centres are also computerized. Other new initiatives proposed to be taken are delegation of enhanced financial powers to ministries. Within CGHS, local advisory committees at dispensary level, empanelment process of hospitals, and diagnostic centres as a continuous process, outsourcing of sanitation of CGHS dispensaries, PPP for setting diagnostic/radiological services in GGHS buildings, procurement of drugs on rate contract system with stringent penalties for delay, TPAs for processing of claims, and medical audit will also be taken up.

3.1.101 Fixed subscription is contributed by the beneficiary irrespective of the size of the family and the magnitude of services being availed. Present subscription rates are based upon the basic pay or pension of the government servant or pensioner. Since there is no linkage between subscription rates (fixed) and cost of services (dynamic), the already huge gap between beneficiary contributions and actual expenditure is progressively widening. To arrest the increasing trend, following options will be considered during Eleventh Five Year Plan:

- Linking the rate of subscription to total cost of CGHS system so that beneficiaries contribute a fixed percentage of CGHS cost and remaining cost is borne by the government.
- Contribution should be per person/beneficiary and not per CGHS card issued to the family.
- In addition to the monthly subscription, each beneficiary should bear the first 20% of the total admissible bill/amount and the balance 80% would be paid by CGHS.
- Phasing out the direct budgetary support for the CGHS through the introduction of health insurance system. Health insurance scheme(s) would cover both serving employees as well as pensioners particularly in non-CGHS areas, on optional basis. Employees joining after a cut off date (to be decided) would compulsorily be covered under health insurance scheme. Health insurance scheme would cover both OPD and hospitalization services. Premium on coverage in the insurance scheme would be on sharing basis.
- Gradually shifting Central Government employees from CGHS to system of health insurance, through which they may access the CGHS or any other clinical health care provider of their choice.

Regulation and Accreditation

3.1.102 There is a need to empower PRIs to monitor the minimum standards for clinical establishments. Participation of NGOs in such efforts will be ensured.

3.1.103 All State Councils will be encouraged to shift to a system of periodical renewal of registration, possibly every three to five years. A specialist's or a super specialist's qualifications should also be required to be registered. These details should get transferred to a National Register to be maintained and updated by each apex council. There is need for a system of accreditation of various courses offered by Medical, Dental, and Nursing educational institutions. The Human Resource Development Ministry has already established a system for accreditation and rating of universities. Such a system is also needed in the medical education sector. The proposed Health Sciences Grants Commission should be given this responsibility.

3.1.104 In the field of paramedical education, priority will be given for establishment of National Para

Medical Council as an apex body to determine standards and to ensure uniform enforcement throughout the country. On similar lines, councils for physiotherapy and occupational therapy should also be established.

3.1.105 National Accreditation Board for Hospitals and Health care Providers (NABH), a constituent Board of Quality Council of India, has adopted standards and accreditation process in line with worldwide accreditation practices. Academy of Hospital Administration had formulated a standard for NABH. Other organizations like Indian Confederation for Health Care Accreditation and financial rating organizations like ICRA have started the process of accreditation and rating the health institutions.

3.1.106 Of late, the government has given approval for introducing the Clinical Establishments (Registration and Regulation) Bill in the Parliament. The proposed legislation will cover all clinical organizations in different streams of medicine including AYUSH systems. Under this legislation, all the clinical establishments including diagnostic centres will be registered and regulated by the National Council of Standards. The council will prescribe minimum standards for health services and maintain national register of clinical establishments.

3.1.107 Efforts will be made to enforce standards for government hospitals at all levels. Priority will be given for development of Standard Operating Procedures and Standard Treatment Guidelines for all specialties and all systems of medicines. A National Advisory Board for Standards will be set up and financial assistance will be provided to States for setting up infrastructure for registration of clinical establishments.

3.1.108 The following activities will be accorded priority during the Eleventh Five Year Plan:

- Legislation for registration of clinical establishments in the country.
- Development of uniform standards for infrastructure and service delivery.
- Re-registration in case of additional and higher qualifications.
- Creation of National Registers of all medical and paramedical personnel.
- Setting up a National Paramedical and other Councils for regulating education and service delivery.
- Recognition of RMPs as *sahabhaagi*s in NRHM.

Emerging Technologies

LOW COST AND INDIGENOUS TECHNOLOGIES

3.1.109 For quality health service, development and utilization of appropriate technologies for diagnosis and treatment of diseases is essential. Over the last few years, health-related technology has developed at a rapid pace. But its impact on indices of public health has been minimal. There is a need to develop cheaper technologies that are as effective as the existing ones. Many technologies are expensive, so alternatives are badly needed. It should be of prime concern to find technological solutions for making crucial equipment affordable, for example, anaesthesia machine, surgical equipment and lighting, sterilization equipment, defibrillator, ventilator, electrocardiogram (ECG), blood pressure monitoring equipment, pulse oxymeter. Benefits of reduced cost of such technologies should reach village health care providers.

3.1.110 Apart from the secondary and tertiary care, there is need and scope to introduce the use of public health related technologies and public health related practices at all levels of health care. Use of the technologies like those indicated in Box 3.1.11 would help to prevent outbreaks of waterborne diseases, maternal mortality related to unsafe deliveries and postpartum infections, anaemia, prevent acquisition of malaria, and deaths due to childhood pneumonias, etc. Efforts will be made in the Eleventh Five Year Plan to promote public health related technologies.

ROLE OF e-HEALTH

3.1.111 Appropriate use of IT for an enhanced role in health care and governance will be aimed at during the Eleventh Five Year Plan. It is feasible to set up a National Grid to be shared by health care providers, trainers, beneficiaries, and civil society. The country already has the advantage of a strong fibre backbone

and indigenous satellite communication technology with trained human resources in this regard. A number of pilot projects on e-Health over the past years by private concerns, corporate, NGOs, medical colleges, and research institutions have been set up. The successful outcome of many of these initiatives needs to be evaluated and scaled up.

3.1.112 Health Management Information System (HMIS) would be an important new initiative utilizing developments in the field of IT. A computerized web enabled data capturing and analytical system will be established to provide valid and reliable data and reports for use at all levels. This would not only facilitate proper ME of different programmes under implementation but will also help in various aspects of service delivery. The HMIS will also integrate the various vertical systems having their own reporting machinery into an integrated umbrella of holistic ME to cater to the needs of Sarva Swasthya Abhiyan. The data will flow directly from the periphery. The Integrated Disease Surveillance Project (IDSP) will eventually be a by-product of the HMIS. As the system stabilizes and the penetration of computerization at the block level increases, the system will be modular enough to expand the scope to the remotest areas. Wastage of drugs due to date expiry also needs to be curtailed by demand-driven management and redistribution of medicines nearing date of expiry. HMIS when fully developed and implemented will track demand and supply and continuously monitor the drug situation.

3.1.113 Telemedicine could help to bring specialized health care to the remotest corners of the country. Telemedicine is likely to provide the advantages of telediagnosis, especially in the areas of cardiology, pathology, dermatology, and radiology besides continuing medical education (CME). It will be of immense use for diagnostic and consultative purposes for patients getting treatment from the secondary level health care facilities. The efficacy of telemedicine has already been shown through the network established by the Indian Space Research Organization (ISRO) that has connected 42 super-specialty hospitals with 8 mobile telemedicine vans and 200 rural and remote hospitals

Box 3.1.11
Making Health Care Affordable—
The Experience of *Jan Swasthya Sahyog* (JSS)

For the last seven years, a group of dedicated young doctors from institutes like CMC, Vellore and AIIMS have been working to make health in the hinterlands, available, accessible, and affordable. The JSS team has given up lucrative jobs, sparkling city lights, and hefty pay packets to develop cheap, accurate and easy-to-use technology that can be used for prevention, diagnosis, and treatment of diseases in remote, tribal areas of Bilaspur and Chhattisgarh. So, the JSS method for early detection of UTIs costs less than Rs 2 per test, anaemia Re 1, diabetes Rs 2, pregnancy Rs 3. They have also developed low cost mosquito repellent creams, breath counters for detection of pneumonia among children, easy-to-read BP instruments to prevent preeclampsia, and a simple water purification method whereby one can cycle for 15 minutes and get a bucket of potable water treated by UV light. Low cost delivery kits with everything needed for the mother and child in the first 24 hours—gloves, large plastic sheets, soap, disinfectant, blade, gauze, sterilized threads, cotton cloth to wrap the baby, thick sanitary pads for women—are available for just Rs 40. These simple techniques are so designed that they can be used by illiterate and semi-literate village women and school students. Then there are the more complicated tests like sputum concentration system for increasing the sensitivity of microscopic diagnosis of tuberculosis and electrophoresis for detection of sickle cell anaemia, a common malady in the area. While electrophoresis costs Rs 300 in the market, using JSS technology it costs just Rs 20.

The most innovative strategy put in place by JSS, however, is the malaria detection system. They have trained village health workers in taking blood smears. These are labelled and neatly packed in small soap cases which are handed over through school children to bus drivers. On their way to school, the drivers drop the smears at the Ganiyari hospital run by JSS. Here they are immediately tested and the reports are sent back through the same buses on their return trip. This courier system has been operational in 21 villages in the area for the last 5 years and has saved many lives. It is now being extended for tuberculosis detection. These simple, innovative technologies developed by JSS can be used by all health workers to make diagnosis in peripheral, remote areas more rational and decrease misuse of drugs.

across the country through its geostationary satellites. So far about 3 lakh people have benefited from this programme. Facility of telemedicine will be provided in district hospitals and government medical colleges.

3.1.114 The e-Health initiatives to be taken up during the Eleventh Five Year Plan are:

- Training, Education, and Capacity Building for e-Health
- Monitoring by e-enabled HMIS to ensure timely flow of data and collation to be used at various levels
- Geographical Information System (GIS) Resource Mapping of various health facilities (Allopathic and AYUSH), Laboratories, Training Centres, Health Manpower, and other inputs to optimize utilization
- Providing service delivery and other e-enabled activities like, disease surveillance, tele-consultations, health helpline, district hospital referral net, and e-enabled mobile medical units

Gender Responsive Health Care

3.1.115 The GoI has taken several policy measures to reduce gender bias. The practice of gender budgeting in Health will be made mandatory in all programmes of the Centre and the States. The performance of different health programmes will be judged on the basis of gender disaggregated data.

Box 3.1.12
Telemedicine

Telemedicine programmes are being actively supported by:
- ISRO
- DIT
- NEC Telemedicine programme for NE States
- State Governments
- NGOs

Various projects have been commissioned. Few examples are:
- NE Project
- Jammu & Kashmir (J&K) Project
- Southern India Project
- Armed Forces Medical Services Project
- Asia Heart Foundation South India Project
- Sankara Netharalaya Telemedicine Project
- Wockhardt Hospital and Heart Institute Project
- Apollo Hospitals Project

3.1.116 To reduce maternal mortality, several initiatives have been taken to make the maternal health programme broad based and client friendly. The major interventions include providing additional ANMs and Staff Nurses in certain health care facilities; referral transport; 24-hours delivery service at PHCs and CHCs; essential and emergency obstetric care; and optimal operationalization of FRUs. All these interventions will have to actually be done on a large scale during the Eleventh Five Year Plan. The goal is to reduce MMR to 100 per 100000 live births by 2012. State specific goals have also been suggested (Annexure 3.1.4).

SEX RATIO

3.1.117 The Eleventh Five Year Plan target is to raise the sex ratio for age group 0–6 to 935 by 2011–12 and subsequently to 950 by 2016–17. State-specific goals have also been suggested (Annexure 3.1.5). Apart from ensuring effective implementation of the Pre-Conception and Pre-Natal Diagnostic Techniques (PC & PNDT) Act, relentless public awareness measures will be undertaken. Other steps for integrating the issue of prenatal sex selection in the initiatives and programmes include the following:

- Increasing community awareness through ASHAs
- Including these issues in training modules and programmes and in IEC
- Adding sex selection information in medical curriculum
- Including indicators on improvement in sex ratios and birth registration as monitoring targets
- Ensuring inclusion of these issues in district level programme planning and implementation
- Ensuring convergence with other ministries such as Women and Child Development (WCD), Panchayati Raj, and Youth Affairs
- Evoking a community response to the issue

3.1.118 During the Eleventh Five Year Plan, the following additional strategies will be adopted:

- Develop clear targets of natural sex ratio at birth (SRB) which is 105 males per 100 females and give

financial benefits to States that have improved SRB. From 2007 onwards, the Annual Health Survey will include estimates of SRB at the district level. Planning Commission will obtain independent estimates of the SRB at the district level each year. The States will be asked to monitor the SRB of the institutional deliveries, by parity, for each facility as well as for the districts. Improvement in SRB will be considered one of the indicators for arriving at decisions on plan assistance to States.

- Improve availability of data plus its access and quality on SRB. The option of PHC level enumeration will be considered to monitor the SRB on a routine basis.
- Provide financial support for capacity building, awareness generation and strict enforcement of PC & PNDT Act
- Amend the PC & PNDT Act to provide for the independence of the Appropriate Authorities at the district level.
- A National Research and Resource Centre in health for women will be developed under NRHM.

ANTENATAL CARE (ANC)

3.1.119 Universal screening of pregnant women using appropriate ANC is essential for the detection of problems and risk during pregnancy for referral to appropriate hospital for treatment. Under the NRHM, efforts are being made to improve the coverage, content, and quality of ANC in order to substantially reduce maternal and perinatal morbidity and mortality. Every effort will be made to operationalize the strategy for prevention and management of anaemia during the Eleventh Five Year Plan so that the target of reducing anaemia among women and girls by 50% is achieved by the end of 2012.

3.1.120 Emphasis will be given to screening all women during pregnancy to detect those with problems and referring them at the appropriate time to predesignated institutions for management and safe delivery. This will reduce maternal and perinatal morbidity and mortality.

SAFE DELIVERY

3.1.121 Since child birth at home costs less than that at a private hospital or a public health facility, it is reasonable that families opt for home deliveries. Emphasis will therefore be given on training Traditional Birth Attendants (TBAs) and turn them into Skilled Birth Attendants (SBAs). They would ensure proper deliveries, whether at home or in an institution. Home delivery by trained persons will be encouraged if the families so desire. TBAs will be taught to recognize complications and refer them to hospitals. This strategy will help in reduction of maternal and neonatal deaths and perhaps pave the way for good ANC.

3.1.122 Attention will be paid by ASHAs, Anganwadi Workers (AWWs), and TBAs to make arrangements for transport to hospital for EmOC, early detection, and management of infections. All pregnant women from poor households will be covered by social insurance schemes to facilitate access to reliable maternal care. In this context, all States will be encouraged to experiment with schemes for maternity care (like *Chiranjeevi* scheme in Gujarat). Positive outcomes will be upscaled and replicated. Every district will have fully equipped Mother and Child Hospital. The existing maternal and child hospitals in the districts will also be upgraded.

3.1.123 It is now recognized globally that the countries successful in bringing down maternal mortality are the ones where the provision of skilled attendance at every birth and its linkage with appropriate referral services for complicated cases has been ensured. This has also been ratified by WHO. Guidelines for normal delivery and management of obstetric complications at PHCs and CHCs for MO and guidelines for ANC and skilled birth attendance at birth for ANMs and Lady Health Visitors (LHVs) have been formulated and disseminated to the States. During the Eleventh Five Year Plan, emphasis will be given to ensure the services of skilled birth attendant at child birth, both for home deliveries and in institutional settings. Since home deliveries will remain the norm across many States, effort will be made to provide skilled birth attendant training to *dai*s who are ubiquitous in every nook and corner of the country.

ESSENTIAL AND EMERGENCY OBSTETRIC CARE

3.1.124 Operationalization of FRUs and skilled attendance at birth go hand in hand. Therefore simultaneous

steps have been taken to ensure tackling obstetric emergencies. Under the NRHM, efforts are being made to make FRUs operational for providing Emergency and Essential Obstetric Care. Other steps include training of MBBS doctors in life saving anaesthetic skills for EmOC, establishment of blood storage at FRUs, and guidelines for operationalization of the FRUs. There is also a plan for training MBBS doctors in management of obstetric cases including caesarean section with the help of professional organizations of obstetricians and gynaecologists. Over the next five years, efforts will be made to improve the Emergency Obstetric Care in all CHCs in a phased manner. CHCs will have well equipped operation theatre, access to safe banked blood, qualified obstetricians, paediatricians, and anaesthetists. Roads linking habitations to CHCs will get special attention. The objective is to ensure availability of EmOC facilities within two hours of travel time.

ESSENTIAL POSTPARTUM CARE

3.1.125 Early postpartum care is essential to diagnose and treat complications such as puerperal infections, secondary postpartum haemorrhage, and ecclampsia, which are major causes of postpartum mortality. Postpartum care provides an opportunity to check the general well-being of mother and infant and to ensure that the infant is nursing well and there is enough supply of breast milk. Exclusive breastfeeding should be started within the first hour of birth. It can save many infant lives by preventing malnutrition and infections. Birth spacing and methods of contraception need to be discussed at this time. During the Eleventh Five Year Plan, Community Health Workers (ASHAs) will be appropriately oriented to this and their remuneration would also be linked to health checks of both the mother and newborns.

SAFE ABORTION SERVICES

3.1.126 The Medical Termination of Pregnancy (MTP) Act was passed by the Indian Parliament in 1971 and came into force from 1 April 1972. The aim of this Act was to reduce maternal mortality and morbidity due to unsafe abortions. The MTP Act, 1971 laid down conditions under which a pregnancy can be terminated and the place where such terminations can be performed. A recent amendment to the Act (2003) includes decentralization of power for approval of places and enlarging the network of safe MTP service providers. The amendment also provides for specific punitive measures for performing MTPs by unqualified persons and in places not approved by the government.

3.1.127 States are being provided flexibility to adopt strategies for the delivery of services to suit their local situations. Interventions for safe abortion services that were being provided in RCH Programme will however continue to be available and implemented more effectively during the Eleventh Five Year Plan.

REPRODUCTIVE TRACT INFECTIONS/SEXUALLY TRANSMITTED INFECTIONS (RTI/STI)

3.1.128 The spread of HIV infection and the role that RTI/STI play in the transmission of HIV has focused urgent attention on the problem. Identification and management of RTI is an important objective of the RCH Programme. The RCH strategies, under NRHM, for prevention, early detection, and effective management of common lower RTI through the existing primary health care infrastructure; and provision of the RTI/STI services at sub-district level will be implemented during the Eleventh Five Year Plan.

3.1.129 During the Eleventh Five Year Plan, for improving maternal health, special attention will be focused on the following areas:

- Ensuring universal provision of comprehensive ANC
- Providing widespread screening for anaemia and high-risk conditions
- Ensuring comprehensive training programme for skilled birth attendants
- Ensuring the services of skilled birth attendant at child birth, both for home deliveries and in institutional settings
- Providing SBA training to dais who are ubiquitous in every nook and corner of the country
- Enhancing availability of facilities for institutional deliveries and effective EmOC
- Providing 24-Hours Delivery Service at PHCs and CHCs
- Training of health personnel at PHCs and CHCs to

perform emergency obstetrical procedures, especially c-sections
- Providing additional ANMs and Public Health and Staff Nurses in certain SCs, PHCs, and CHCs
- Providing skilled human resources on contractual basis
- Improving EmOC in all CHCs in a phased manner (CHCs will have well equipped operation theatre, access to safe banked blood, qualified obstetricians, paediatricians, and anaesthetists)
- Operationalizing FRUs through supply of drugs in the form of Emergency Obstetric drugs kits
- Providing special attention to roads linking habitations to CHCs
- Providing Referral Transport
- Orienting ASHAs to postpartum care and linking her remuneration to health checks of both the mother and newborns
- Providing Safe Abortion Services
- Preventing, detecting, and effectively managing common lower RTI through the existing primary health care infrastructure

Child Health

3.1.130 Under the RCH Programme, newborn and child health services are implemented in the country with the aim of reducing neonatal, infant, and child mortality. In order to reduce these, a continuum of care is needed at the community as well as facility level. The Eleventh Five Year Plan goal is to reduce IMR to 28 per 1000 live births by 2012. State-specific goals have also been suggested (Annexure 3.1.6).

HOME BASED NEWBORN CARE (HBNC)

3.1.131 Efforts to improve home based care have proven successful at improving child survival. Home Based Newborn and Child Care is to be provided by a trained Community Health Worker (such as the ASHA) who guides and supports the mother, family, and TBA in the care of newborn, and attends the newborn at home if she is sick. The worker is supervised by a field person (ANM/LHV or a doctor) who visits the community once in 15 days. Community acceptance and coverage of such care has been quite good.

3.1.132 The GoI has recently approved the implementation of HBNC based on the Gadchiroli model (Box 3.1.13), where appreciable decline in IMR has been documented on the basis of work done by a VO called SEARCH. Gadchiroli has shown how ordinary women can do extraordinary things: a well-trained local woman can not only lower neonatal mortality but can also bring about attitudinal change. The women *Shishu Rakshak*s of Gadchiroli have managed to dispel many myths surrounding pregnancy and have been able to ensure better nutrition, care, immunization, and hygiene.

3.1.133 During the Eleventh Five Year Plan, ASHAs will be trained on identified aspects of newborn care during their training. This initiative will be initially implemented in the five high focus States (MP, UP, Orissa, Rajasthan, and Bihar). To supervise and provide onsite training and support to ASHAs, mentor-facilitators will be introduced for effective implementation. The national strategy during the Plan will be to introduce and make available high-quality HBNC services in all districts/areas with an IMR more than 45 per 1000 live births. Apart from performance incentive to ASHAs, an award will be given to ASHAs and village community if no mother–newborn or child death is reported in a year. For effective linkages, model Intensive Care Units will also be set up at the district level, particularly in States with poor health indicators, in order to make facility based curative newborn care available.

INTEGRATED MANAGEMENT OF NEONATAL AND CHILDHOOD ILLNESS (IMNCI)

3.1.134 IMNCI strategy encompasses a range of interventions to prevent and manage five major childhood illnesses, that is, Acute Respiratory Infections (ARI), Diarrhoea, Measles, Malaria, and Malnutrition and the major causes of neonatal mortality, which are prematurity and sepsis. It focuses on preventive, promotive, and curative aspects. The major components of this strategy are:

- Strengthening the skills of the health care workers
- Strengthening the health care infrastructure
- Involvement of the community

3.1.135 The first two components of the strategy are the facility based IMNCI and the third is the

Box 3.1.13
Home Based Newborn Care—Gadchiroli Model

Requirements

- Transparent selection of best motivated
- Rigorous training
- Intensive supervision
- Curative role for CHWs
- Performance-based remuneration

Interventions

- Health education of mothers and the community
- Attending home delivery with TBA
- Care of baby at birth
- Home visits and support to mother and baby up to 28 days
- Management of newborn sicknesses

Interventions Aimed at Prevention and Management of

- Birth asphyxia
- Sepsis/Pneumonia
- Low Birth Weight (LBW)/Preterm
- Breast feeding problems
- Hypothermia

Achievements

- NMR reduced by 51%
- IMR reduced by 47%
- High community acceptance and beneficiary preference to CHW as the source of newborn care at home (85%)

Lessons Derived

- CHWs could be trained to provide HBNC in villages and urban slums
- 85% mothers and newborns can be covered
- The various components of HBNC including the management of birth asphyxia in home deliveries and the diagnosis and treatment of newborn sepsis by using injectable gentamicin could be safely and effectively delivered by trained CHWs working under supervision

community based IMNCI. 104 districts all over the country have initiated implementation of IMNCI. During the Eleventh Five Year Plan, efforts will be made to implement the IMNCI programme coupled with home-based neonatal care throughout the country in a phased manner.

HBNC AND IMNCI: DIFFERENT BUT COMPLEMENTARY ROLES

3.1.136 In order to reduce infant and child mortality a continuum of care is needed at the community as well as facility level. Of the two main packages available for reducing child mortality, the HBNC operates at the community level and has a strong evidence of feasibility and reducing child mortality. It should be used to deliver care at home through ASHAs and ANMs. IMNCI training is primarily facility-based and has been shown to improve neonatal care. Hence the IMNCI should focus on improving newborn and child care in the district hospitals and CHCs. This will avoid duplication of efforts and, at the same time, provide continuum of care.

SKILLED CARE AT BIRTH

3.1.137 The underlying principle of effective care at birth is that wherever she is born whether at home or facility, she is provided clean care, warmth, resuscitation, and exclusive breastfeeding. She is weighed and examined, and if clinical needs are not manageable at the place of delivery, she is referred and managed at an

appropriate facility. Programme for newborn care is relatively easy to implement in facilities because of the presence of doctors, nurses, ANM/LHV, and supporting environment.

3.1.138 It is also true that a large proportion of deliveries would continue to take place at home by the TBAs. Under NRHM, newborn care skills should also be imparted to TBAs in areas with high rate of home deliveries. For this they should be provided with delivery kits. There are many good practices all over the country related to low cost hygienic kits which can be taken on board and replicated, e.g. the one developed by Jan Swasthya Sahyog (JSS). The overall effort during the Eleventh Five Year Plan will be to promote childbirth by skilled attendants at home and in institutions, both in the public and private sector.

BREAST FEEDING PRACTICES

3.1.139 Exclusive breastfeeding for the first six months of life is the single most important child survival intervention. Successful breastfeeding also requires the initiation of breastfeeding within an hour after birth, and avoidance of prelacteals, supplementary water, or top milk. Continued breastfeeding for two years or more, with introduction of appropriate and adequate complementary feeding from the seventh month onwards, further improves child survival rates by a considerable percentage. According to NFHS-3, the proportion of exclusively breast fed infants at 6 months of age was only 46.3%. Only 23.4% of mothers initiated breastfeeding within the desired one hour after birth, as against the Tenth Plan goal of 50%. Therefore, the Eleventh Five Year Plan will concentrate on promoting optimal breastfeeding practices among women at home and in health facilities. Baby Friendly Hospital Initiative and Breastfeeding Partnership, two programmes involving all the key partners will be encouraged.

ARI, DIARRHOEA, AND VACCINE PREVENTABLE DISEASES

3.1.140 Research has shown that most of the cases of ARI are not severe; community health workers can effectively manage them and bring down IMR. Severe ARI cases require urgent referral to a facility for injectable antibiotic therapy and supportive care. Co-trimoxazole tablets are being provided at SCs and ANMs are being trained to treat children with the infection. During the Eleventh Five Year Plan, attempt will be made to eradicate polio from the country along with strengthening the routine immunization. Studies have shown that the entire context, strategy, and implementation of polio eradication activities need to be reanalysed. The option of injectable polio vaccine should also be kept open. Reduction will be done in the mortality associated with diarrhoea and ARI through HBNC and IMNCI.

3.1.141 During the Eleventh Five Year Plan, thus, IMNCI and HBNC will be rigorously implemented across the country. The major strategies will be:

- Essential new born care (home and facility based)
- Standard case management of diarrhoea and pneumonia
- Timely initiation of breastfeeding, exclusive breastfeeding for six months and continued breastfeeding with appropriate complementary feeding from the seventh month onwards
- Increased usage of ORS and strengthened immunization.

School Health

3.1.142 School Health Programme should aim at helping children in attaining optimal potential for growth in physical, mental, educational, and emotional development. The programme should provide health knowledge and improve the health of children. Its components will include school health services, health promoting school environment, and health education curriculum. In this area as well there are good practices all over the country that can be taken on board and replicated. Eleventh Five Year Plan will work on school going children's health. One innovative School Health Programme is under implementation, in PPP mode, in Udaipur district of Rajasthan. In view of the low cost versus achievements, it is a good case for replicating in other parts of the country. However, to make it comprehensive, preventive, and promotive components of school health care will have to be added to this programme. Some of the key features of the programme are given in Box 3.1.15.

Box 3.1.14
Strengthening Immunization

- Strengthening routine immunization programme
- Improving awareness through various channels of communication
- Involving community and CSO in routine immunization
- Achieving 100% coverage for the six vaccine preventable diseases
- Eradicating polio
- Eliminating neonatal tetanus
- Expanding the coverage of Hepatitis B vaccine

Adolescent Health

3.1.143 Adolescents in India represent nearly one-third of the population. The last two decades witnessed a rapid increase in their population. Some of the public health challenges for adolescents include pregnancy, excess risk of maternal and infant mortality, STI, RTI, and the rapidly rising incidence of HIV. The use of health services by adolescents is limited due to poor knowledge and lack of awareness. Pregnancy is associated with significantly higher obstetric risk in adolescent girls. Many of them suffer from malnutrition and anaemia. This combined with poor ANC leads not only to increased morbidity in the mother but also to high incidence of Low Birth Weight (LBW) and perinatal mortality. Poor child-rearing practices add to the morbidity and undernutrition in infants, thus perpetuating the inter-generational cycle of undernutrition and ill health. Thus, ill health during adolescence has profound implications for maternal and infant morbidity and mortality.

3.1.144 The urgent need for appropriate nutrition and health education for adolescents will be met by advocacy for delay in age at marriage and optimum health and nutrition interventions during pregnancy. Knowledge and skills will be given to health service delivery personnel catering to the adolescents' reproductive and sexual health needs.

3.1.145 During the Eleventh Five Year Plan, adolescent issues will be incorporated in all the RCH training programmes. Materials will be developed for communication and behavioural change. The existing services at PHCs and CHCs will be made adolescent friendly by providing special window for their needs.

Health Care for Older Persons

3.1.146 An area of growing importance and demanding attention is the health of older persons. It requires comprehensive care providing preventive, curative, and rehabilitative services. Unlike developed countries, India does not have a Geriatric Health Service as a component of health services. According to the 2001

Box 3.1.15
Innovative School Health Programme—Udaipur Model

- Target Group: 40000 students from 222 government/aided schools in Udaipur.
- Care: Screening, outpatient as well as inpatient, and also specialty care.
- Screening: Camps held in school, free dental kits, and ID card issued.
- Outpatient care: one room in selected 28 schools and mobile team.
- Inpatient: a ward (7 ICU and 12 general beds), redesigned/furnished with NGO in government hospital).
- Specialty care: Tie up with good private hospitals.
- 24×7 service: toll free number and ambulances.
- Human resources: 9 doctors, 12 paramedical, and 38 support staff.
- Cost: Check up Rs 4 lakh (borne by GoR and NGO @ 50:50), Cost of OP/IP facility Rs 25 lakh (by NGO), and recurring cost Rs 72 lakh (NGO, Nagar Parishad, and UIT @ 50:25:25). It amounts to 50 paise per child per day.
- Achievements: 17500 treated in OP, 150 treated in IP for different disease including serious/chronic and 4 cardiac cases operated.

Note: GoR = Government of Rajasthan, OP/IP = Outpatient/Inpatient, UIT = Urban Improvement Trust.

Census, there are 76.6 million people over the age of sixty, constituting about 7.4 % of the total population. Life expectancy has been increasing and the proportion of older persons in India will rise in the next few decades.

3.1.147 The health services need to be responsive to the special needs of older persons. Provision of specialty based clinics in secondary and tertiary care facilities would help. A counselling and medical care facility to look after health needs of older persons and an emergency facility to reach those in acute need and transport them to a hospital is needed. This will include acute care, long-term care, and community-based rehabilitation.

3.1.148 To improve the access to promotive, preventive, curative, and emergency health care among older persons, a range of services will be provided under the programme for health care of older persons. First, a home health service, which means home visits intended to detect health problems, and as a psychological support by health personnel sensitized on such issues. Second, a community-based health centre for them for educational and preventive activity. This will be integrated with the NRHM and an allocation made specifically for geriatric care. The ASHAs under the NRHM will be trained in geriatric care. Third, the outpatient medical service that serves as the base for home health service will be enhanced. Finally, an improved hospital-based support service focused on their health care needs will be established. Specific provisions will also be made for widows and a few centres on geriatric health especially focused on elderly women.

Box 3.1.16
Older Persons' Health

- Prevalence and incidence of diseases as well as hospitalization rates are much higher in older people than the total population.
- 8% of older Indians are confined to their home or bed (immobile)
- Women are more frequently afflicted with immobility
- Many older people take ill health in their stride as a part of 'usual/normal ageing'.
- Self perceived health status is an important indicator of health service utilization and compliance to treatment interventions.

3.1.149 During the Eleventh Five Year Plan, thus, following actions will be taken:

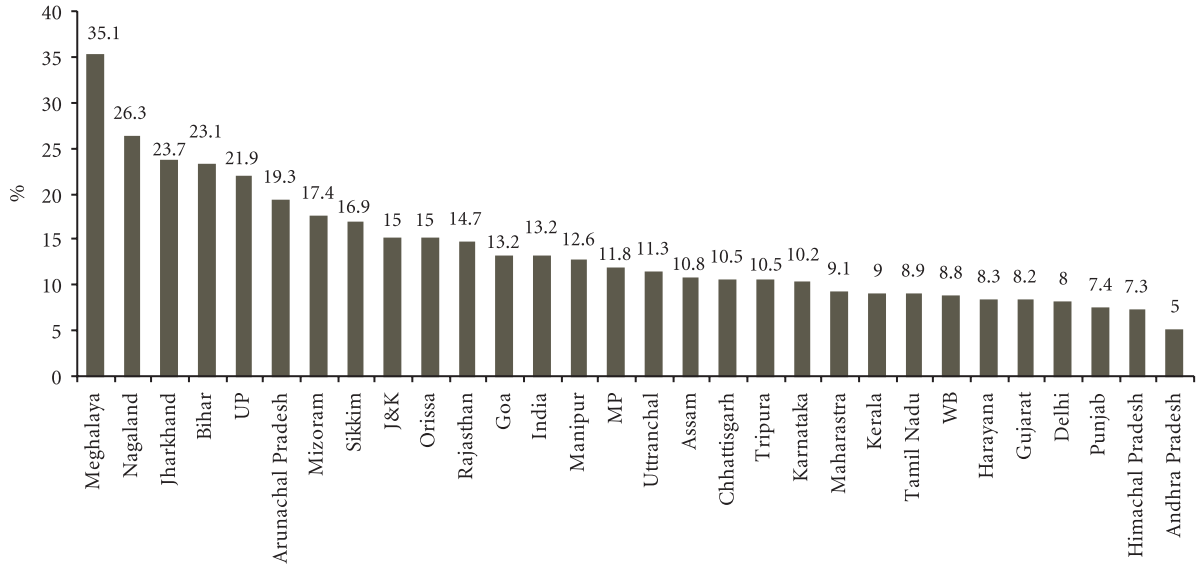
- Providing comprehensive health care to the older persons
- Training health professionals in Geriatrics, including supportive care and rehabilitation
- Developing scientific solutions to specific health problems by research in Geriatrics and Gerontology
- Developing two National Institutes for Research in Ageing and Health, one in the North and the other in South

Voluntary Fertility Regulation

3.1.150 The percentage of married women using contraception has increased. Yet the gender imbalance in the family planning programme is evident by the fact that despite being the most invasive and tedious contraceptive intervention, female sterilization remains the most common method of family planning. Men are not being addressed as responsible partners and the use of condoms or male sterilization remains very low. There are also inter-State differences in the magnitude of unmet need for contraception (Figure 3.1.14).

3.1.151 Even meeting half of the unmet need could lead to an appreciable decline in the birth rate. ANMs and ASHAs will identify the couples with unmet need in their area, and address their concerns. During the Eleventh Five Year Plan, all strategies adopted under RCH programme will be continued with a greater focus in areas of high unmet need.

3.1.152 The Eleventh Five Year Plan goal is to achieve a reduction of TFR to 2.1 by 2012. State specific goals have also been suggested (Annexure 3.1.7). The Plan will ensure that all issues of demographic change, the population policies, and programmes to achieve population stabilization are addressed without violating the peoples' rights of decision making and choices. Most importantly this should be done without adversely affecting the sex ratio.



Source: NFHS-3, IIPS (2005–06).

FIGURE 3.1.14: Unmet Need for Family Planning (currently married women, age 15–49)

INVOLVEMENT OF CIVIL SOCIETY AND NGOS

3.1.153 As per the NFHS data, less than 10% of rural women report that they are visited by the ANMs during a year. On the other hand, there is a large pool of formally or informally qualified Rural Health Practitioners (RHPs) who meet the day-to-day health care needs of people in 6 lakh villages, 24×7. In the Eleventh Five Year Plan, it is proposed to enlist their services for many tasks including the delivery of non-clinical methods of contraception and referring the clinical cases to the PHCs or FRUs. The successful experiment by a VO, *Janani*, in Bihar may be studied and replicated.

3.1.154 There is an urgent need to increase the involvement of CSO, VOs, and NGOs including private sector in the delivery of family planning services, especially in areas where the public sector is weak. *Jansankhya Sthirata Kosh* (JSK) (National Population Stabilization Fund) is a registered society of the MoHFW to accelerate population stabilization efforts. JSK is expected to work in close cooperation with the government, private, and voluntary sectors to promote small and healthy families. State governments, district officials, and other organizations will be encouraged to suggest innovations in enhancing family planning services which can be supported by JSK on a pilot scale. Expertise of the Population Foundation of India will be sought to scale up good pilots in the country. Centres of excellence (such as one in Tamil Nadu—Box 3.1.18) can also play a vital role.

3.1.155 During the Eleventh Five Year Plan greater focus will be on the following for voluntary fertility reduction:

Box 3.1.17
Janani—Using RHPs

An NGO, Janani, set up a network of more than 21000 Titli (Butterfly) centres and more than 500 Surya (Sun) clinics in the States of Bihar, Jharkhand, and MP. Surya clinics are referral clinics run in towns by formally qualified, State-registered doctors. Titli centres are situated in villages and run by RHPs who have been trained to provide family planning counselling and sell non-clinical contraceptives. Since RHPs are males, they work with a Woman Health Partner who is generally a member of their family (in most cases, wife). RHPs and their female counterparts hold a two-day training programme on family planning counselling. Female partners help reach out to the village women who are hesitant to approach male health providers on reproductive health matters.

Box 3.1.18
Facilitating Action by Private Sector

Tamil Nadu Government established a Centre of Excellence, 'Sterilization and Recanalization Training-cum-Service Centre' at Kilpauk Medical College, Chennai, in 1987 with core officers—a female gynaecologist and a male urologist. It conducts workshops and trains doctors in standard procedures of male and female sterilizations. The centre also provides services by conducting sterilization and recanalization operations for males and females.

In Tamil Nadu, private sector participation is strengthened to improve family welfare programmes in the State. Private nursing homes have been approved to provide family welfare services in the State. Nearly 25% of the sterilizations are performed by voluntary and approved private institutions. Contraceptive stocks are freely supplied to these institutions to provide better services to needy couples to improve spacing between births.

- Expanding the basket of contraceptive choices
- Improving social marketing
- Increasing male involvement
- Enhancing role of mass media for behavioural change
- Disseminating through satisfied users

Human Resources for Health

3.1.156 Given the present scarcity of human resources, the next decade will posit newer opportunities and challenges for medical and health education. The country has to train an adequate number of health professionals with appropriate knowledge, skill, and attitude to meet the future health care needs of the people and the increasing disease burden. Additionally, there is the opportunity for India to become an important destination for health care services. Given the rising demand and growing need for expanding health services, systematic studies need to be launched for estimating requirements. In the Eleventh Five Year Plan, efforts will be made to develop an effective human resource MIS by involving concerned Ministries, Professional Councils, Technical Councils, UGC, Central and State Universities, Public Health Institutions, and knowledgeable individuals from Civil Society.

3.1.157 NCMH (2005) has recommended additional funding for establishment of new medical, nursing, and other institutions, training of village level functionaries, and in-service training of health personnel. The resource requirements for development of human resources for health during the Eleventh Five Year Plan will be shared by the Centre and the States. The NRHM will also contribute. Efforts will be made to mobilize additional resources through suitable partnership arrangements with the private sector and also through other available options.

3.1.158 Measures will be taken during the Eleventh Five Year Plan period to solve the problem of shortage of basic education infrastructure and human resources. The role and functions of apex bodies like MCI need to be reviewed. The following strategies will be accorded priority during the Plan:

- Ensure availability of medical professionals in rural areas on a permanent basis, posting of doctors with adequate monetary as well as non-monetary incentives, such as suitable accommodation, class I status, preferential school admissions for children of doctors living in remote areas, transfer or posting of choice after a stipulated length of stay and training opportunities.
- States to expand the pool of medical practitioners including a cadre of Licentiate Medical Practitioners and practitioners of Indian Systems of Medicine and Homeopathy (AYUSH).
- Increase age of retirement of doctors (all Central and State Government including Defence, Railways, etc.) to 62 years. States will be encouraged to retain public health doctors on contract basis for further period of three years till the age of 65 years, especially in the notified hardship areas.
- A series of one-year duration Certificate Courses for MBBS graduates will be launched in deficit disciplines like public health, anaesthesia, psychiatry, geriatric care, and oncology. The private sector will also be encouraged to participate in this venture.

Box 3.1.19
Human Resources for Health

Issues

- Growing shortage of all key cadre in rural areas—Doctor, Paramedicals, ANMs, Nurses, Lab Technicians, and OT Assistants.
- Problems of absenteeism and irregular staff attendance.
- Non-availability of drugs and diagnostic tests at health facility leading to demotivation of doctors.
- No motivation or will to serve in rural areas.
- Weak or non-existent accountability framework leading to powerlessness of local communities and Panchayat vis-à-vis the health system functionaries.
- Non-transparent transfer and posting policy leading to demoralization.
- Inadequate systems of incentive for all cadres especially in difficult area postings.
- Lack of career progress leading to demotivation and corruption.
- Lack of standard protocols to promote quality affordable care and full utilization of human resources.

Possible Solutions

- State-specific human resource management policy and transparency in management of health cadres.
- Training and utilization of locally available paramedics, RMPs, and VHWs to meet the gaps in rural areas. Allow them to prescribe basic medication.
- Reintroducing Licentiate course in Medicine
- Incentives for difficult areas and system for career progression.
- Accountability to local communities and Panchayats.
- Devolution of power and functions to local health care institutions—provide resources and flexibility to ensure service guarantee.
- Resources, flexibility, and powers to ensure that IPHS are achieved.
- Adequate staff nurses and a minimum OPD attendance and service provision
- Improved and assured tele-linkages.

- Efforts of the National Board of Examinations (NBE) will be enhanced for overcoming the shortage of specialists and also to improve the quality of training.
- Councils to create a scientific data bank of health professionals.
- Re-registration of all medical and dental practitioners including specialists after every five years till they are practising or serving.
- New medical, nursing, and dental colleges will be established in the underserved areas.
- As recommended by the NCMH (2005), priority will be given to reducing the existing inequality by establishing 60 medical colleges in deficit States (UP, Rajasthan, MP, Orissa, Chhattisgarh, etc.) and 225 new nursing colleges in underserved areas. PPP will be used to bridge this gap.
- Experiences of University of Health Sciences set up in various States during the Tenth Plan, against medical colleges that are part of the general universities to be evaluated before more such universities are set up during the Eleventh Five Year Plan.
- Implementation of recommendations of OSC for development of Human Resources for health.
- Equip medical graduates with the skills essential for providing broad-based community health care.
- Stem the high rate of attrition of academics; teaching in professional colleges to be made attractive. Need to enhance the salary structure and provide an innovative programme of incentives. Private OPDs in the medical colleges to be considered as one such incentive.
- RMPs, after training, can contribute towards activities under NRHM. Few suggested roles have been listed in Box 3.1.20.

Public Health Education

3.1.159 Currently several institutions are engaged in imparting public health and related education in the country. Various medical organizations are in

the process of starting new Public Health Courses at the Masters level, namely Indian Council of Medical Research (ICMR), AIIMS, PGIMER, etc. The supply position is bound to improve after institutions of Public Health under Public Health Foundation of India (PHFI) and new Public Health Schools are set up within the existing Medical Institutions.

3.1.160 During the Eleventh Five Year Plan, benefits of knowledge and skills of modern Public Health will be made available at all levels. For the development of public health, multiple independent centres with a common regulatory body will be a suitable approach. Some of these centres could be located in universities of health sciences and some with the multidisciplinary universities. This would enable greater input from different disciplines to enrich the subject. During the Plan, therefore, efforts will be made to set up new public health schools within the existing medical colleges. MBA Programmes specially tailored for the health care and MD (Hospital Administration)/Diplomate National Board (Hospital and Health Administration)/ MD (Community Health Administration)/Masters (Hospital Administration) Programmes will be encouraged.

Health Systems and Bio-Medical Research

3.1.161 With the development and use of sophisticated tools of modern biology, a better understanding of complex interplay between the host, agent, and environment is emerging. This is resulting in the generation of new knowledge. This scientific knowledge is to be used to develop drugs, diagnostics, devices, and vaccines that should find a place in the health systems of the country. A vibrant inter-phase between the research community, the industry, and the health systems is the only way to facilitate this. It is not only the technological advances in public health and medicine that influence health of the population. The epidemiology of disease extends beyond biology. A sociological perspective is important to understand the occurrence, persistence, and cure of a disease. The diseases are not rooted in biological causes alone, but are multifactorial. This calls for an inter-disciplinary approach to health research.

3.1.162 The Eleventh Five Year Plan, therefore, will mark a departure in orientation to research in health. No amount of pure bio-medical research will be able to find solutions to health issues unless it addresses upfront the social determinants of health. While health research has made appreciable progress, there remains an unacceptable lag time in translating the research outcomes into tangible health products or in application of the knowledge generated through research. Thus, the task is how best to mobilize research to bridge the gap between what is known and what is done—the 'know-do' gap. Equally important is to ensure that the products of health research reach and are used for and by the people who need it most. Health research during the Eleventh Five Year Plan will be directed to provide ways and means of bringing about equity and improving access to health technologies.

3.1.163 With a view to re-organize the medical research establishments in the country in order to keep

Box 3.1.20
Role of RMPs as Sahabhaagis in NRHM

- Running social awareness programmes in schools to cover topics like: ill effects of tobacco and alcohol, advantages of good sanitation, hygiene, nutrition, and safe drinking water
- Running free camps for: vision tests, health check-ups, immunization
- Training rural people in association with SHGs about: Hygiene, Sanitation, Nutrition, Safe drinking water, Needs of pregnant women, Protection against unsafe sex, awareness about locally prevalent communicable and non communicable diseases
- Providing non clinical contraceptives and referring for clinical cases
- Acting as drug distribution depots and fever treatment centres
- Supervising spray activities, water treatment, sanitary landfill, and sanitary latrines
- Providing emergency primary health services and referrals

abreast with the dynamic international health research environment and to address the current and future health challenges, the Central Government is creating a new Department of Health Research under the MoHFW. The newly created Department will deal with promotion and co-ordination of basic, applied, and clinical research including clinical trials and operations research in areas related to medical, health, biomedical and medical profession, and education through development of infrastructure, human resources, and skills in the cutting edge areas and management of related information thereto; promote and provide guidance on research governance issues including ethical issues in medical and health research; inter-sectoral coordination and promotion of PPP in medical, biomedical, and health research areas; advanced training in research areas concerning medicine and health including grant of fellowship for such training in India and abroad; international co-operation in medical and health research including work related to international conferences in related areas in India and abroad; technical support for dealing with epidemics and natural calamities; investigation of outbreaks due to new and exotic agents and development of tools for prevention; matters relating to scientific societies and associations, charitable and religious endowments in medicine and health research areas; coordination between organizations and institutions under the Central and State Governments in areas related to the subjects entrusted to the Department and for promotion of special studies in medicine and health, and ICMR.

3.1.164 The following priority areas for the health system research have been identified for the Eleventh Five Year Plan:

- Impact of PPPs in health on the public health services, State finances, and whether PPPs really bring about equity in health access.
- Studies on modalities and impact of health insurance.
- Issues of health care access in urban areas, health problems of urban poor, the migrants, homeless, street, and working children.
- Health care in situations of violence and conflict.
- Gender issues in disease prevalence, access to health care, and education.
- Studies on the innovation, diffusion, use, and misuse of medical technologies, research on their relevance or appropriateness, misuse and irrational use, the additional financial burden on the users due to misuse. Such studies should cover prescription practices to the new medical technologies such as genetics, assisted reproduction, life prolonging technologies, stem cell research, and organ donation and transplantation.
- Medical audit to establish various ways of improving health care service delivery at different levels.
- Nursing research to be undertaken by the nursing as well as social science and bioethics institutions in India.
- Audit of research, that is, whether research is justified and relevant.

3.1.165 During the Plan, clinical and operational research in both the modern and AYUSH systems will continue. The major thrust in Allopathy as well as AYUSH will be given to the following areas:

- Improving diagnosis, treatment delivery, and development of new tools for the diagnosis and treatment
- Integrating disease control programmes within primary health care system
- Cost effectiveness analysis of different regimen for prevention and treatment of diseases
- Quality of lab-diagnosis, lab related factors, periodic training, adequacy of reagents, kits and good microscopy
- Delayed diagnosis: community factors, surveillance factors, lab factors, and health system factors
- Upgradation of drug delivery system: surveillance mechanisms
- Research on poor drug compliance rate: community, social, educational, ethnic, cultural, and health system factors
- Research on social determinants of health, health care seeking, and the epidemiological web

3.1.166 The institutions and organizations like ICMR involved in research, should be committed to an agenda that recognizes that future improvements in health

and well-being will depend on research that does the following:

- Increases understanding of both the molecular and biological mechanisms underlying diseases as well as the psychosocial, economic, and environmental determinants of health
- Develops new vaccines, diagnostic tools, and cost-effective therapies
- Deepens understanding of underlying social and behavioural causes of injuries and lifestyle diseases
- Links health with S&T, engineering, and related disciplines
- Promotes healthy living and reduces risk behaviours

From Vertical to Horizontal: Affecting Integration

3.1.167 The Eleventh Five Year Plan will not allow any vertical structures to be created below district level under different programmes. The existing programmes will be integrated horizontally at the district level, as the emphasis during the Plan would be system-centric rather than disease centric. Already under NRHM, some programmes like the ones dealing with vector-borne diseases, tuberculosis, leprosy, blindness, and iodine deficiency disorders (IDD) have been integrated under a single District Health Society. Other programmes and activities described below will also be brought under one umbrella.

NATIONAL AIDS CONTROL PROGRAMME (NACP)

3.1.168 During the Eleventh Five Year Plan, the NACP has set the goal to halt and reverse the epidemic in India over the next five years by integrating programmes for prevention, care, support, and treatment and also addressing the human rights issues specific to people living with HIV/AIDS (PLWHA). The specific objectives are to reduce new infections by 60% in high prevalence States so as to obtain reversal of the epidemic and by 40% in the vulnerable States so as to stabilize the epidemic.

3.1.169 In order to achieve the objectives, the following strategies will be adopted:

- Preventing new infections in high risk groups and general population through:
  - Saturation of coverage of high risk groups with targeted interventions.
  - Scaled up interventions in the general population.
- Increasing the proportion of PLWHA who receive care, support, and treatment.
- Strengthening the infrastructure, system, and human resource in prevention, care, support, and treatment programmes at the district and national levels.
- Enacting and enforcing national legislation prohibiting discrimination against PLWHA and their families in health facilities, schools, places of employment, and other institutions.
- Including mechanisms for victims and their guardians to lodge complaints and receive quick redressal.
- Ensuring that women and children living with HIV/AIDS receive medical care, including antiretroviral (ARV) treatment and use all possible means to remove barriers to their receiving care.
- Strengthening a nation-wide strategic information management system.
- Advancing R&D of vaccines suitable for the strains of HIV prevalent in India.

NATIONAL CANCER CONTROL PROGRAMME (NCCP)

3.1.170 During the Tenth Five Year Plan, a taskforce comprising experts from across the country was constituted. Based on recommendations from the national taskforce a comprehensive NCCP will be implemented during the Plan. The main activities during the Plan will be:

- Establishing new Regional Cancer Centres
- Upgradation of the existing Regional Cancer Centres based on their performance and linkages with other cancer organizations in the region.
- Creating skilled human resources for quality cancer care services
- Training health care providers for early detection of cancers at primary and secondary level
- Increasing accessibility and availability of cancer care services
- Providing behavioural change communication along with provision of cost effective screening techniques and early detection services at the door step of community

- Propagating self-screening of common cancers (oral, breast)
- Upgrading Oncology Wings in government medical colleges
- Creating and upgrading Cancer detection and Surgical and Medical Treatment facilities in District Hospitals/Charitable/NGO/Private Hospitals
- Promoting research on effective strategies of prevention, community-based screening, early diagnosis, environmental, and behavioural factors associated with cancers and development of cost effective vaccines
- Creating Palliative Care and Rehabilitation Centres
- Monitoring, Evaluation, and Surveillance

NATIONAL PROGRAMME FOR PREVENTION AND CONTROL OF DIABETES, CVDs, AND STROKE

3.1.171 Common risk factors for both CVD and diabetes are unhealthy diet, physical inactivity, and obesity. There is evidence-based information that NCDs are preventable through integrated and comprehensive interventions. Cost-effective interventions exist and have worked in many countries. The most successful ones have employed a range of population wide approaches combined with interventions for the individuals. Thus, the programme will aim to prevent and control common NCDs risk factors through an integrated approach and to reduce premature morbidity and mortality from diabetes, CVD, and stroke. Up scaling based on pilot results will be done during the Eleventh Five Year Plan.

3.1.172 During the Plan, the objectives of the programme will be:

- Primary prevention of major NCDs through health promotion
- Surveillance of NCDs and their risk factors in the population
- Capacity enhancement of health professionals and health systems for diagnosis and appropriate management of NCDs and their risk factors
- Reduction of risk factors in the population
- Establishment of National guidelines for management of NCDs
- Development of strategies and policies for prevention by intersectoral coordination
- Community empowerment for prevention of NCDs

NATIONAL MENTAL HEALTH PROGRAMME (NMHP)

3.1.173 A multipronged strategy to raise awareness about issues of mental health and persons with mental illness with the objective of providing accessible and affordable treatment, removing ignorance, stigma, and shame attached to it and to facilitate inclusion and acceptance for the mentally ill in our society will be the basis of the NMHP. Its main objective will be to provide basic mental health services to the community and to integrate these with the NRHM. The programme envisages a community and more specifically family-based approach to the problem.

3.1.174 The Plan will strengthen District Mental Health Programme (DMHP) and enhance its visibility at grass root level by promoting greater family and community participation and creating para professionals equipped to address the mental health needs of the community from within. It will fill up human resource gap in the field of psychiatry, psychology, psychiatric social work, and DMHP. The plan will strive to incorporate mental health modules into the existing training of health personnel. It will also harness NGOs' and CSOs' help in this endeavour, especially family care of persons with mental illness, and focus on preventive and restorative components of Mental Health. The Eleventh Five Year Plan, recognizing the importance of mental health care, will provide counselling, medical services, and establish help lines for people affected by calamities, riots, violence (including domestic), and other traumas. To achieve these, a greater outlay will be allocated to mental health.

3.1.175 During the Eleventh Five Year Plan, the Restrategized NMHP will be implemented all over the country with the following objectives:

- To recognize mental illnesses at par with other illnesses and extending the scope of medical insurance and other benefits to individuals suffering with them
- To have a user friendly drug policy such that the psychotropic drugs are declared as Essential drugs

- To give greater emphasis to psychotherapeutic and a rights based model of dealing with mental health related issues
- To include psychiatry and psychology, and psychiatric social work modules in the training of all health care giving professionals
- To empower the primary care doctor and support staff to be able to offer psychiatric and psychological care to patients at PHCs besides educating family carers on core aspects of the illness.
- To improve public awareness and facilitate family-carer participation by empowering members of the family and community in psychological interventions.
- To provide greater emphasis on public private participation in the delivery of mental health services.
- To upgrade psychiatry departments of all medical colleges to enhance better training opportunities
- To improve and integrate mental hospitals with the whole of health delivery infrastructure that offer mental health services thus lifting the stigma attached
- To provide after care and lifelong support to chronic cases.

INJURIES AND TRAUMA

3.1.176 Data from Survey of Causes of Death and Medical Certification of Causes of Deaths reveals that 10–11% of total deaths in India were due to injuries. It is estimated that nearly 850000 persons die due to direct injury related causes including road traffic injuries every year in India, with 17 million hospitalizations and 50 million requiring hospital care for minor injuries. Most of the hospitals do not have integrated facilities for treatment of trauma victims and the casualty services are generally ill equipped, poorly managed, and over worked. A scheme to upgrade and strengthen emergency care in State hospitals located on national highways has been under implementation with a view to provide treatment to road accident victims in hospitals as near the site of accident as possible.

3.1.177 During the Eleventh Five Year Plan, the emphasis will also be given for development of a comprehensive trauma care system covering the entire nation with State wide emergency medical service and trauma care. The components will include provision of equipment, communication system, training and provision of human resources, registry and surveillance. Eventually the plan is to start a National Programme for Medical Emergencies Response. The strategy during the Eleventh Five Year Plan will be:

- To identify health care facilities along highways and upgrade them to specific levels of trauma care
- To establish a life support ambulance system
- To plug gaps in human resource training and availability for trauma care
- To establish communication linkages between various levels of health care
- To assist the States in developing and managing an appropriate trauma referral system
- To develop, implement, and maintain State-wise and nation wide trauma registry as an integral part of e-Health.

DISABILITY AND MEDICAL REHABILITATION

3.1.178 With the ongoing health, demographic, and socio-economic transitions, the Disability Profile is changing, with an alarming rise in the number of people suffering from chronic disorders and associated morbidity and disability. According to census (2001), there were 2.19 crore persons with visual, hearing, speech, locomotor, and mental disabilities in India. Of the disabled population, locomotor disabled constitute 28%, speech and hearing 13%, visual 49%, and mental 10%. Population over 60 years of age has disabilities affecting multiple organs.

3.1.179 The Eleventh Five Year Plan aims at building capacity in Medical Colleges and District Hospitals to train adequate human resources required for medical rehabilitation programme at all three levels of Health Care Delivery System. Towards this end the following steps are planned:

- To upgrade and develop two Physical Medicine and Rehabilitation (PMR) departments in the country to act as Model Centres
- To set up PMR Departments in 30 Medical Colleges/ Teaching Institutions (at least one in each State) and each such department to adopt districts, CHCs,

and PHCs for developing medical rehabilitation services
- To train medical and rehabilitation professionals in adequate number for providing secondary and tertiary level rehabilitation services
- To introduce training programme on Disability Prevention, Detection, and Early Intervention at diploma, undergraduate, and postgraduate level
- To provide Rehabilitation Services in Medical Hospitals and evolve strategy of care in the domiciliary and community set up.

PREVENTION AND CONTROL OF DEAFNESS

3.1.180 As per WHO estimates, in India, there are 63 million hearing impaired, with an estimated prevalence as 6.3%. A larger percentage of our population suffers from milder degrees of hearing impairment, adversely affecting productivity, both physical and economic. The objectives in the Eleventh Five Year Plan will be to prevent avoidable hearing loss; identify, diagnose, and treat conditions responsible for hearing impairment; and medically rehabilitate all hearing impaired.

3.1.181 The strategies during the Eleventh Five Year Plan will be:

- Strengthening service delivery including rehabilitation
- Developing human resources for ear care
- Promoting outreach activities and public awareness using innovative IEC strategies
- Developing institutional capacity of District Hospitals/CHCs/PHCs for ear care services

OCCUPATIONAL HEALTH

3.1.182 Exposure to chemicals, biological agents, physical factors and adverse ergonomic conditions, allergens, safety risks, and psychological factors often afflict working population of all ages. People also suffer from injuries, hearing loss, respiratory, musculoskeletal, cardiovascular, reproductive, neurotoxic, dermatological, and psychological effects. Such risks are often preventable. The illness resulting from such exposures is not identified properly due to lack of adequate expertise. The work up of the cases by physicians lacking skills to identify such illness leads to unnecessary use and waste of scarce medical resources as well as their own time. Freedom from occupational illness is essential in today's competitive world where workers' productivity is an important determinant of growth and development.

3.1.183 The objectives of occupational health initiative during the Eleventh Five Year Plan will be to promote and maintain highest degree of physical, mental, and social well-being of workers in all occupations; identify and prevent occupational risks of old as well as newer technologies such as Information and Nano technology; build capacity for prevention, that is, early identification of occupational illness; create an occupational health cell under NRHM in each district headquarter, well-equipped to be able to promote primary, secondary, as well as tertiary prevention; and establish occupational health services in agriculture, health and other key sectors for placement of workers in suitable work and propagating adaptation of work to humans.

3.1.184 During the Eleventh Five Year Plan, following strategies will be implemented to reduce occupational health problems:

- Creating awareness among policymakers on the cost of occupational ill health including injuries
- Ensuring use of technologies that are safe and free from risks to health of the workers
- Sensitizing employers as well as workers' organizations for their right to safety and the implication of injuries in their lives
- Instituting legislation and ensuring proper enforcement for prevention and control of occupational ill health and compensating those who suffer intractable illness due to work
- Building a national data base of occupational illness and injuries
- Monitoring and evaluating programmes and policies related to pollution prevention and control
- Establishing surveillance and research on occupational injuries and building capacity in health sector to be able to participate in preventing work related illness and injuries
- Enforcing safety regulations and standards
- Introducing no-fault insurance schemes for all workers in the formal and informal sectors

BLOOD AND BLOOD PRODUCTS

3.1.185 A well-organized Blood Transfusion Service is a vital component of any health care delivery system. An integrated strategy for Blood Safety is required for elimination of transfusion transmitted infections and for provision of safe and adequate blood transfusion services to the people.

3.1.186 During the Eleventh Five Year Plan, the programme for Blood and Blood Products to be initiated, will have following objectives:

- To reiterate firmly the government commitment to provide safe and adequate quantity of blood, blood components, and blood products.
- To make available adequate resources to develop and reorganize the blood transfusion services in the entire country.
- To make latest technology available for operating the blood transfusion services and ensure its functioning in an updated manner.
- To launch extensive awareness programmes for donor information, education, motivation, recruitment, and retention in order to ensure adequate availability of safe blood.
- To encourage appropriate clinical use of blood and blood products.
- To encourage R&D in the field of Transfusion Medicine and related technology.
- To take adequate regulatory and legislative steps for ME of blood transfusion services and to take steps to eliminate profiteering in blood banks.

Pilot Projects

3.1.187 During the Eleventh Five Year Plan, a few pilot projects would be taken up that will be eventually, depending on the success and experience gained, upscaled and most put under NRHM/NUHM. These relate to:

- Sports Medicine
- Deafness
- Leptospirosis Control
- Control of Human Rabies
- Organ Transplant
- Oral Health
- Fluorosis
- Disability and Medical Rehabilitation

National Centre for Disease Control (NCDC)

3.1.188 It has been planned to strengthen the National Institute of Communicable Diseases (NICD) as the NCDC to fulfil its role as an apex institute in the country. The NCDC will have two main divisions under its head. One division will look after communicable diseases while the other will look after coordination of non-communicable disease activities. Budgetary provisions have been made for this.

Health Financing

FINANCING HEALTH SERVICES

3.1.189 The existing level of government expenditure on health in India is about 1%, which is unacceptably low. Effort will be made to increase the total expenditure at the Centre and the States to at least 2% of GDP by the end of the Eleventh Five Year Plan. This will be accompanied by innovative health financing mechanisms (Box 3.1.21). The providers in public health system are not given any incentive, which affect the quality, efficiency, and drives them to greener pastures in the private sector. Therefore, incentives that link payment to performance will be introduced in the public health system.

3.1.190 The Eleventh Five Year Plan will experiment with different systems of PPPs, of which examples already exist. The State Governments may have an entitlement system for pregnant women to have professionally supervised deliveries. If properly implemented, it will empower them to exercise choice, as well as create competition in the health service sector. Contracting out well-specified and delimited projects such as immunization may also help increase accountability.

3.1.191 The problems of indebtedness due to sickness will be handled by sensitively devised and carefully administered health insurance. CBHI is a promising idea. Existing experiences in different States show that well-managed prepayment systems with risk pooling could be effective in protecting people from

impoverishment. CBHI initiatives based on some individual contribution to the premium, along with a government subsidy, will be supported as they would improve the health care quality and expand interventions as per need of the people. In the Eleventh Five Year Plan we will consider approaches such as comprehensive risk pooling packages through the public system and through accredited private providers. This is an area where many experiments need to be encouraged to discover what can work best for people.

HEALTH SPENDING

3.1.192 Health spending in India is estimated to be in the range of 4.5–6% of GDP. The results from the National Health Account (NHA) for the year 2001–02 (Figure 3.1.15) showed that total health expenditure in the country was Rs 105734 crore, accounting for 4.6% of its GDP. Out of this, public health expenditure constituted Rs 21439 crore (0.94%), private health expenditure constituted Rs 81810 crore (3.58%) and external support 2485 crore (0.11%).

3.1.193 Of the private health expenditure during 2001–02, households' out-of-pocket health expenditure was Rs 76094 crore, which accounts for 72% of the total health expenditure incurred in India. This includes out-of-pocket payments borne by the households for treating illness among any member in the household and also insurance premium contributed by individuals for enrolling themselves or family members in health insurance schemes. The data shows that a majority of expenditure (87.7%) goes towards curative care.

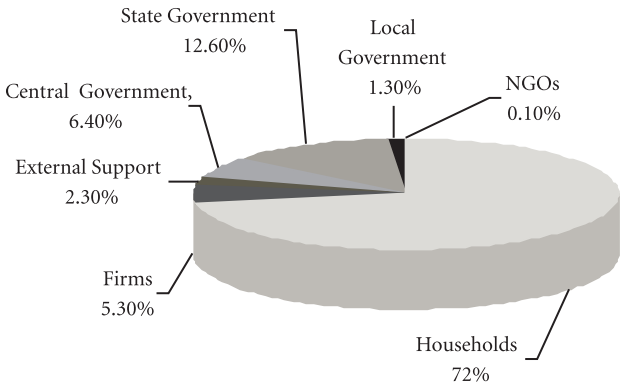
3.1.194 Studies have shown that the poor and other disadvantaged groups in both rural and urban areas spent a higher proportion of their income on health care than those who are better-off. The burden of treatment is high on them when seeking inpatient care (NSSO 60th Round). Very often they have to borrow at very high interest to meet both medical and other household consumption needs. The Eleventh Five Year Plan will explore mechanisms for providing universal coverage of population for meeting the cost of hospitalization, particularly for those who cannot afford it. It will provide public-sector financed universal health insurance, for which private and public-sector provider organizations can compete.

TREND IN HEALTH FINANCING BY THE CENTRE AND STATES

3.1.195 The financial allocation for the health sector over the past decade indicates that the public expen-

Box 3.1.21
Some Innovative Financing Mechanisms

Kerala:	In Kozhikode, risk pools constituted around professionals or occupational groups, SHGs or micro credit groups, weavers, fishermen, farmers, agricultural labourers, and other informal groups. Almost 90% of the population is covered under some form of network or the other.
Uttar Pradesh:	Voucher scheme for RCH services piloted in seven blocks of Agra for BPL population. The scheme was launched in March 2007 and funded by State Innovations in Family Planning Services Agency.
Jharkhand:	In order to promote institutional delivery and routine immunization, a voucher scheme was introduced in December 2005 in all 22 districts. Vouchers are issued to BPL pregnant women at the time registration of pregnancy. She is entitled to have the delivery at any government facility or at accredited private health providers.
Haryana:	Vikalp—an innovative approach to financing urban primary health care for the poor through a combination of PPPs and risk pooling using capitation fees for a package of primary health care services with the State Health Department and private providers.
Karnataka:	Yeshasvini Co-operative Health Care Scheme is a health insurance scheme targeted to benefit the poor. The scheme was initiated by Narayana Hrudayalaya, a super-specialty heart-hospital in Bangalore and by the Department of Co-operatives of the Government of Karnataka. All farmers who have been members of a cooperative society for at least a year are eligible to participate, regardless of their medical histories. The scheme provides coverage for all major surgeries.



Source: NHA Cell, MoHFW, GoI (2005).

FIGURE: 3.1.15: Source of Health Care Financing in India, 2001–02

ditures on health (through the Central and State Governments), as a percentage of total government expenditure, have declined from 3.12% in 1992–93 to 2.99% in 2003–04. Similarly, the combined expenditure on health as a percentage of GDP has also marginally declined from 1.01% of GDP in 1992–93 to 0.99% in 2003–04. In nominal terms, the per capita public health expenditure increased from Rs 89 in 1993–94 to Rs 214 in 2003–04, which in real terms is Rs 122 (Figure 3.1.16).

3.1.196 Health care is financed primarily by State Governments, and State allocations on health are usually affected by any fiscal stress they encounter. Besides chronic under funding, the sector has been plagued with instances of inefficiencies at several levels resulting in waste, duplication, and sub optimal use of scarce resources. All these factors combined have had an adverse impact on the public health sector's ability to provide health care services to the people.

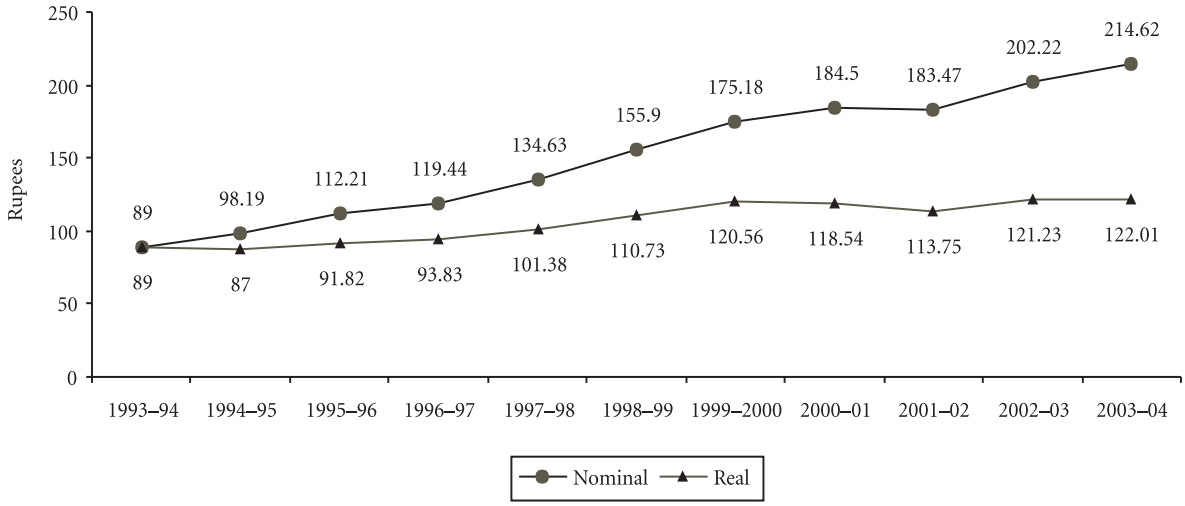
3.1.197 There was also a gradual decline in the proportion of funds released to States by Central Government when the States were themselves under fiscal stress. This resulted in sharp reduction in capital investment in public hospitals, low priority to preventive and promotive care, and inefficiencies in allocations under national health programmes. The financing system is equally dysfunctional as funds are released in five-year cycles, divided under different and complex budget heads—revenue, capital, etc., providing for little flexibility to respond to any health emergency. To address these issues, government has initiated several interventions under the NRHM such as District Health Action Plan, National Health Accounting systems, management capacity at all levels, improved financial management, and close monitoring.

3.1.198 It is estimated that in order to meet the target expenditure level, total Plan expenditure will need to grow at 29.7 % annually during the first three years of the Eleventh Five Year Plan, which breaks down to 30.2 % for the Centre and 29.2 % for the States. As a result, total health expenditure of the Centre and States, respectively, will rise to 0.55% of GDP and 0.85% of GDP in 2009–10. In the last two years of the Plan, total Plan expenditure will need to rise at about 48% annually. This will result in a total health expenditure of 0.87% of GDP by the Centre and 1.13% by States in 2011–12. Therefore, during the Eleventh Five Year Plan, while the Central Government makes every effort to augment resources for health, State Governments will be persuaded to assign at least 7–8% of State expenditures towards health care.

3.1.199 During the Plan, the objective of every State will be to increase competition among providers, create options for consumers, and ensure oversight through elected local bodies and Panchayats. State governments will also focus on integrating public health programmes with other public health interventions like drinking water, sanitation, nutrition, primary education, roads, and connectivity. State governments will be persuaded to allocate more resources for these sectors through better fiscal management and reprioritization.

MONITORING OUTCOMES VERSUS OUTLAYS

3.1.200 The allocation of funds among different levels (namely primary, secondary, and tertiary) and disease control programmes has been changing. The manner in which resources are allocated shows a wide disparity in spending and outcomes. It is therefore necessary to focus on health outcomes rather than health outlays, including a disaggregated examination by gender, class, caste, etc. to assess their impact on different groups. During the Eleventh Five Year Plan,



Source: NCMH (2005).

FIGURE 3.1.16: Growth of per capita Health Expenditure by Centre and States—Nominal and Real Terms

norms and indicators for outputs and outcomes will be developed to enable government and other agencies to measure the efficiency of health spending by the Centre and the States and allocations adjusted accordingly. The practice of gender budgeting by the States will be necessary.

BLOCK BUDGETING

3.1.201 Data from available surveys and studies reveal that there are major inequities in access to health care between the rich and the poor, between urban and rural areas, and between various regions of the country. Presently allocation of public funds is also quite iniquitous, with urban areas often receiving much larger per capita public health resources than rural areas, and certain States (Bihar, UP, MP, Orissa, Chhattisgarh, Jharkhand) having per capita public health expenditure less than half of other States (Himachal Pradesh, Punjab, Goa, Delhi, Mizoram).

3.1.202 One approach to address this situation is to follow the equity principles of 'equal resources for equal need' and 'greater resources for greater need'. With this approach, it is possible to work out a system of block budgeting wherein people in either urban or rural areas, whether in developed or less developed States anywhere in the country would receive the same baseline level of public health resources eliminating existing inequities in public health resource allocation. Added to this, there would need to be recognition of special needs (for women, children, *adivasi*s, and other disadvantaged groups) that would merit additional resources being allocated for services for these groups. During the Plan, block budgeting will be piloted in selected districts.

SCHEMES AND OUTLAYS FOR ELEVENTH FIVE YEAR PLAN

3.1.203 To achieve the desired outcomes in the health sector, a substantially enhanced outlay for the Department of Health and Family Welfare has been earmarked during the Eleventh Five Year Plan (2007–2012). The total projected GBS for the Eleventh Plan is Rs 120374.00 crore (at 2006–07 prices) and Rs 136147.00 crore (at current prices). This enhanced outlay is about four times the initial outlay for the Tenth Plan (Rs 36378.00 crore). A large proportion of this amount, i.e., Rs 89478.00 crore (65.72 %) is for NRHM, the flagship of the GoI. Another Rs 625 crore is to be contributed by the Department of AYUSH to make a total of Rs 90103 crore for NRHM during the Eleventh Five Year Plan. For the other ongoing schemes, a total of Rs 23995.05 crore has been earmarked. For the new initiatives it is Rs 20846.95 crore. Rs 1827.00 crore has also been earmarked for OSC.

3.1.204 Annexure 3.1.8 indicates the number of schemes that were in operation during 2006–07 and

the schemes that will be operational during the Eleventh Five Year Plan. The scheme-wise outlays of Department of Health and Family Welfare during the Eleventh Five Year Plan are given in Appendix of Volume III.

Eleventh Five Year Plan Agenda

3.1.205 Thrust areas to be pursued during the Eleventh Five Year Plan are summarized below:

- Improving Health Equity
  - NRHM
  - NUHM
- Adopting a system-centric approach rather than a disease-centric approach
  - Strengthening Health System through upgradation of infrastructure and PPP
  - Converging all programmes and not allowing vertical structures below district level under different programmes
- Increasing Survival
  - Reducing Maternal mortality and improving Child Sex ratio through Gender Responsive Health care
  - Reducing Infant and Child mortality through HBNC and IMNCI
- Taking full advantage of local enterprise for solving local health problems
  - Integrating AYUSH in Health System
  - Increasing the role of RMPs
  - Training the TBAs to make them SBAs
  - Propagating low cost and indigenous technology
- Preventing indebtedness due to expenditure on health/protecting the poor from health expenditures
  - Creating mechanisms for Health Insurance
  - Health Insurance for the unorganized sector
- Decentralizing Governance
  - Increasing the role of PRIs, NGOs, and civil society
  - Creating and empowering health committees at various levels
- Establishing e-Health
  - Adapting IT for governance
  - Establishing e-enabled HMIS
  - Increasing role of telemedicine
- Improving access to and utilization of essential and quality health care
  - Implementing flexible norms for health care facilities (based on population, distance, and terrain)
  - Reducing travel time to two hours for EmOC
  - Implementing IPHS for health care institutions at all levels
  - Accrediting private health care facilities and providers
  - Redeveloping hospitals/institutions
  - Mirroring of centres of excellence like AIIMS
- Increasing focus on Health Human Resources
  - Improving Medical, Paramedical, Nursing, and Dental education, and availability
  - Reorienting AYUSH education and utilization
  - Reintroducing licentiate course in medicine
  - Making India a hub for health care and related tourism
- Focusing on excluded/neglected areas
  - Taking care of the Older persons
  - Reducing Disability and integrating disabled
  - Providing humane Mental Health services
  - Providing Oral health services
- Enhancing efforts at disease reduction
  - Reversing trend of major diseases
  - Launching new initiatives (Rabies, Fluorosis, Leptospirosis)
- Providing focus to Health System and Bio-Medical research
  - Focusing on conditions specific to our country
  - Making research accountable
  - Translating research into application for improving health
  - Understanding social determinants of health behaviour, risk taking behaviour, and health care seeking behaviour.

3.2 AYURVEDA, YOGA AND NATUROPATHY, UNANI, SIDDHA, AND HOMEOPATHY (AYUSH)

Introduction

3.2.1 There is a resurgence of interest in holistic systems of health care, especially, in the prevention and management of chronic lifestyle related non-communicable diseases and systemic diseases. Health

sector trends suggest that no single system of health care has the capacity to solve all of society's health needs. India can be a world leader in the era of integrative medicine because it has strong foundations in Western biomedical sciences and an immensely rich and mature indigenous medical heritage of its own.

Vision for AYUSH

3.2.2 To mainstream AYUSH by designing strategic interventions for wider utilization of AYUSH both domestically and globally, the thrust areas in the Eleventh Five YearPlan are: strengthening professional education, strategic research programmes, promotion of best clinical practices, technology upgradation in industry, setting internationally acceptable pharmacopoeial standards, conserving medicinal flora, fauna, metals, and minerals, utilizing human resources of AYUSH in the national health programmes, with the ultimate aim of enhancing the outreach of AYUSH health care in an accessible, acceptable, affordable, and qualitative manner.

Current Scenario and Challenges

3.2.3 During the Tenth Plan, the Department continued to lay emphasis on upgradation of AYUSH educational standards, quality control, and standardization of drugs, improving the availability of medicinal plant material, R&D, and awareness generation about the efficacy of the systems domestically and internationally. Steps were taken in 2006–07 for mainstreaming AYUSH under NRHM with the objective of optimum utilization of AYUSH for meeting the unmet needs of the population.

Health Care Services under AYUSH

3.2.4 The AYUSH sector across the country supported a network of 3203 hospitals and 21351 dispensaries. The health services provided by this network largely focused on primary health care. The sector has a marginal presence in secondary and tertiary health care. In the private and not-for-profit sector, there are several thousand AYUSH clinics and around 250 hospitals and nursing homes for in patient care and specialized therapies like *Panchkarma*.

3.2.5 In clinics and nursing homes there are anecdotal reports of the role of AYUSH in the successful management of several communicable and non-communicable diseases. However, there is no macro-data available about the contribution of AYUSH to major national programmes for the management of communicable and NCDs. System and State-wise details of hospitals and dispensaries under AYUSH have been provided in Annexures 3.2.1 and 3.2.2. A major challenge in Eleventh Five Year Plan is to identify reputed clinical centres and support upgradation of their facilities via PPP schemes so that the country can boast of a national network of high-quality clinical facilities developed for rendering specialized health care in strength areas of AYUSH.

AYUSH under NRHM

3.2.6 Despite having a different scheme of diagnosis, drug requirements, and treatments as compared to the mainstream health care system, preliminary efforts to integrate AYUSH in NRHM were initiated during the Tenth Plan. The AYUSH interventions under NRHM have been depicted in Box 3.2.1. It is too early to assess if the AYUSH interventions in NRHM have had significant health impact by way of complementing the conventional national health programmes. Integrating AYUSH into NRHM has the potential of enhancing both the quality and outreach of NRHM, especially with the availability of a large number of practitioners in this field (Table 3.2.1). Supporting strategic pilot action research projects in the Eleventh Five Year Plan to evolve viable models of integration seems necessary.

Box 3.2.1
AYUSH Interventions under NRHM

- Co-location of AYUSH dispensaries in 3528 PHCs in different States.
- Appointment of 452 AYUSH doctors and paramedics (pharmacists) on contractual basis in the primary health care system.
- Inclusion of AYUSH modules in training of ASHA.
- Inclusion of *Punarnavdi Mandoor* in the ASHA Kit for management of anaemia during pregnancy.
- Inclusion of seven Ayurvedic and five Unani medicines in the RCH programme.
- Establishment of specialty clinics, specialized therapy centres, and AYUSH wings in district hospitals supported through CSS.

TABLE 3.2.1
Registered Medical Practitioners under AYUSH

System	Number of Practitioners
Ayurveda	453661
Unani	46558
Siddha	6381
Naturopathy	888
Homeopathy	217850
Total	725383

Source: Department of AYUSH, status as on 1 January 2007.

Human Resources Development in AYUSH

3.2.7 There are a total of 485 government and non-government AYUSH educational institutions in India (Table 3.2.2).There are Undergraduate and Postgraduate Regulations of Central Council of Indian Medicine (CCIM) for Minimum Standards of Ayurveda, Siddha, and Unani education. The teaching institutions are required to provide the infrastructure specified in the regulations, which include building for the college, hostel, library, hospital with requisite bed strength, teaching and non-teaching staff, etc. Despite a very large educational infrastructure, the quality of education in most of the institutions does not meet prescribed standards set by CCIM. The major challenge in the Eleventh Five Year Plan will be to initiate reforms in undergraduate and postgraduate education that can make AYUSH education more contemporary and to provide generous support to centres of excellence in governmental and non-governmental sector. The functioning of regulatory bodies requires vast improvement for proper regulation and development of professional education in these systems. Initiatives like institution of National Education Testing type testing for AYUSH teachers and NAAC type assessment and accreditation for AYUSH colleges are required.

3.2.8 There are, as of today, practically no formal accredited programmes for training of AYUSH paramedics viz., nurses, pharmacists, and panchakarma therapists.

3.2.9 Continuing Medical Education/Reorientation and Training Programme were initiated with two sub-components (i) reorientation programme for AYUSH personnel and (ii) short-term CME programme for AYUSH physicians/practitioners. Government/Private/NGO institutions of AYUSH are eligible to take up this training programme. The programme has been restructured for Eleventh Five Year Plan with more components including use of IT tools to modernize CME.

AYUSH Industry

3.2.10 System-wise details of manufacturing units have been provided in Table 3.2.3. The turnover of AYUSH industry is estimated to be more than Rs 8000 crore. 70% of the Indian exports from the AYUSH sector consist largely of raw materials and are estimated to be of the order of Rs 1000 crore per annum. The balance (around 30%) consists of finished products including herbal extracts. Indian exports are at present led by a trader's vision rather than a vision inspired by value added knowledge products. The major challenge for industry is to transform its global image from that of a raw material supplier to a knowledge products industry. This transformation will call for major

TABLE 3.2.2
Details of Educational Institutions and their Capacity

	Ayurveda	Yoga	Unani	Siddha	Homeopathy	Naturopathy	Total
Undergraduate Colleges	240	–	39	7	183	10	479
Admission Capacity	11225	–	1750	350	13425	385	27135
Colleges with Postgraduate Courses	62	–	7	3	33	–	105
Admission Capacity	991	–	67	110	1084	–	2252
Exclusive Postgraduate Institutes	2	–	1	1	2	–	6
Admission Capacity	40		28	30	99	–	197
Total Institutions	242	–	40	8	185	10	485

Source: Department of AYUSH, status as on 1 April 2007.

TABLE 3.2.3
System-wise Details of Manufacturing Units

System	Manufacturing Units	
	Numbers	Proportion
Ayurveda	7621	85.68
Unani	321	3.61
Siddha	325	3.65
Homeopathy	628	7.06
Total	8895	100.00

Source: Department of AYUSH, status as on 1 April 2007.

investments in upgrading processing technology, R&D including collaborative research with reputed international institutions and quality control. It will also call for intersectoral cooperation among AYUSH, CSIR, ICMR, private sector R&D, NGOs, and Ministry of Commerce for meeting global requirements of quality and safe natural medicinal products. Technical and financial support to the industry in this direction could go a long way in improving our exports.

Standardization and Quality Control of Ayurveda, Siddha, Unani, and Homeopathy (ASU&H) Drugs

3.2.11 Four different Pharmacopoeia Committees are working for preparing official formularies/pharmacopoeias to evolve uniform standards in preparation of drugs of ASU&H and to prescribe working standards for single drugs as well as compound formulations. Standards for around 40% of the raw materials and around 15% of formulations have been published by these committees. Drug Control Cell (AYUSH) is working in the Department of AYUSH to deal with the matters pertaining to licensing and regulation of Ayurvedic, Unani, and Siddha Drugs. Setting up of the Central Drug Authority for centralized licensing and enforcement of the provisions of Drugs and Cosmetics Act and Rules would go a long way in ensuring quality and safety of ASU&H drugs. Department of AYUSH intends to convert Pharmacopoeial Committees of various systems into a modern pharmacopoeial commission with adequate representation of stakeholders and to develop standards that are in line with internationally acceptable pharmacopoeial standards and quality parameters of Ayurveda, Siddha, and Unani drugs.

Research Activities

3.2.12 The Central Government has established research councils for Ayurveda and Siddha (Central Council for Research in Ayurveda and Siddha, CCRAS), Unani (Central Council for Research in Unani Medicine), Homeopathy Central Council for Research in Homeopathy, and Yoga and Naturopathy (Central Council of Yoga and Naturopathy). These Councils have carried out a wide range of research activities. Other government departments like ICMR, CSIR, DST, Department of Biotechnology (DBT), and ICAR also have research centres and focused programmes related to specific aspects of AYUSH. Department of AYUSH also administers an Extramural Research Scheme supporting project based research studies from accredited scientific and medical institutions.

3.2.13 One of the socially important outputs of research in the AYUSH sector has been the pharmacopeias and formularies of the various systems of medicine. Whereas numerous important research projects have been undertaken in the last three decades across the various research councils on important public health problems like malaria, filariasis, hepatitis, anaemia, there is no critical report on the quality or impact of these projects on the health sector in India. The current research investments are extremely low. One challenge is to step up research investments and support reputed research organizations in the government, non-government, and private sector and promote collaborative research with reputed international institutions. The challenge of addressing strategic research needs in disease areas of national and global importance is attempted to be met through Golden Triangle Research Programme from development of ASU&H drugs.

Natural Resource Base of AYUSH

3.2.14 The resource base of AYUSH is largely plants. Around 6000 species of medicinal plants are documented in published medical and ethno-botanical literature. Wild populations of several hundreds of these species are under threat in their natural habitats. In the Tenth Plan, a National Medicinal Plants Board (NMPB) was established for supporting conservation of gene pools and large scale cultivation of medicinal plants. The NMPB has also promoted the creation of

Box 3.2.2
Research Initiatives

Literary Research

Medico-historical studies, Transcription/translation of rare works

Fundamental Research

Pharmacopoeial work and standardization of formulations/therapies.

Drug Research

Medico-Botanical survey, Pharmacognostical/Phytochemical studies

Clinical Research

Therapeutic trials of drugs for specified diseases
Drug proving or Homeopathic Pathogenetic Trials

Tribal Health Care Research Programme, Family Welfare and RCH Related Research

Oral Contraceptive (*Pippalyadi Yoga*)
Spermicidal Agent (*Neem oil*)
Bal Rasayan and *Ayush Ghutti* for children's health
Scientific validation of Ayurvedic and Siddha Medicines for RCH Programme
Development of cosmaceutical/neutraceutical products based on traditional medicine knowledge

State Medicinal Plants Boards in most of the States. In addition to plants, there are also around 300 species of medicinal fauna and around 70 different metals and minerals used by AYUSH. However, there have been no official efforts so far to conserve these resources. The key challenges in the Eleventh Five Year Plan will be to conserve gene pools of red listed species, support large-scale cultivation of species that are in high trade, involve forestry sector in plantation of medicinal tree species, and establish modern processing zones for post-harvest management of medicinal plants.

Centrally Funded Institutions

3.2.15 Institutions for all the core functions (Regulatory, Research, Education, Laboratory, and Manufacture) have been established and/or strengthened by Central funding for establishing benchmarks for others to follow.

Review of Tenth Plan Schemes

3.2.16 Original approved outlay for the Department for the Tenth Plan was Rs 775.00 crore, which was increased to Rs 1214.00 crore. Year-wise allocation and corresponding expenditure substantially increased during Tenth Plan, particularly from the year 2004–05 onwards. Scheme wise details for Tenth Plan have been provided in Annexure 3.2.3.

Towards Finding Solutions

3.2.17 Apart from core areas for the AYUSH sector like education, research, industry, and medicinal plants, four important dimensions have been added to AYUSH in the Eleventh Five Year Plan viz., (i) mainstreaming of AYUSH in public health, (ii) technology upgradation of AYUSH industry, (iii) assistance to Centres of Excellence, and (iv) revitalization and validation of community-based local health traditions of AYUSH. All these dimensions will serve to enhance the social and community outreach of AYUSH in the Eleventh Five Year Plan at domestic and global level.

Systems Strengthening

3.2.18 The ongoing schemes namely, strengthening the Department of AYUSH, Statutory Institutions, hospitals and dispensaries, strengthening of pharmacopoeial laboratories, IEC, and other programmes and schemes have been merged as 'Systems Strengthening'. Adequate budgetary provisions will be made for this in the Eleventh Five Year Plan.

Educational Institutions

3.2.19 National Institutes of various AYUSH systems have been set up by the Central Government to set benchmarks for teaching, research, and clinical practices. Keeping in view the need for upgrading these national institutes into Centres of Excellence, a substantial increase in outlay will be made in the Eleventh Five Year Plan. This increase is also on account of setting up a state-of-the-art tertiary Ayurveda centre in the national capital with R&D focus and tertiary health care facilities.

3.2.20 Most of the AYUSH undergraduate and postgraduate colleges in the government sector suffer from a variety of infrastructure constraints. As low quality of AYUSH education is one of the crucial factors for lack of public confidence in AYUSH system, selected institutions in governmental and non-governmental sector having better track records will be upgraded into Centres of Excellence. An increased outlay will be provided to ensure that AYUSH institutions are brought up to the minimum standards prescribed by the Statutory Body within the Eleventh Five Year Plan period.

Research and Development (R&D)

3.2.21 The infrastructure and capacities of AYUSH research councils will be upgraded to enable them to carry out state-of-the-art scientific work related to drug standardization and quality control, botanical standardization, laying down of pharmacopoeial standards, and clinical trials.

3.2.22 Golden Triangle Research partnership initiated by Department of AYUSH with collaboration of CCRAS, ICMR, and CSIR is aimed at scientific validation and development of R&D based drugs as well as development of herbal drugs based on traditional medicinal knowledge for prioritized disease conditions. Ayurveda, Siddha, Unani, and Homoeopathy drug industry is being associated with this initiative. For expediting the work of laying down pharmacopoeial standards of single drugs and poly-herbal formulations, the research councils have been declared as the Secretariats of the Pharma-copoeias Committees. Various peripheral units/laboratories of research councils will be upgraded for undertaking sophisticated scientific work relating to development of marker compounds and biologically active ingredients for drug standardization and development.

Medicinal Flora and Fauna

3.2.23 The NMPB is functioning with a very small component of staff as an extension of the Department. Manifold increase in outlay for the Eleventh Five Year Plan is to restructure the NMPB as an autonomous body and provide sufficient manpower to undertake its wide mandate. A Centrally Sponsored component for cultivation, processing, and marketing of medicinal plants is being started from the outlay of NMPB. This will have sub components for financial allocation: cultivation of prioritized medicinal plants species over 75000 hectares; raising of 50 lakh seedlings; setting up of Centralized Seed Centre and Nursery for cultivating planting materials for 15 States; setting up of six medicinal plants zones in agro-climatic zones of the country; and market development assistance fund for plan building and marketing support. Another existing Central Sector component is regarding programme for in-situ conservation, creation of Gene Bank for medicinal plants, ex-situ conservation of prioritized medicinal plants, R&D for quality standards, and certification and programme for IEC.

Hospitals and Dispensaries

3.2.24 This Scheme has now been subsumed under the NRHM, as it aims at creating AYUSH facilities in PHCs, CHCs, and district hospitals for the purpose of mainstreaming of AYUSH under NRHM. The ambit of the scheme is widened to provide support for strengthening of AYUSH dispensaries, hospitals and for supply of AYUSH medicinal kits in rural areas and for development of specialized AYUSH treatment centres under PPP mode.

Industry

3.2.25 AYUSH industry at present suffers from small scale of operation and low technology that needs to be upgraded. Majority of the 5000 GMP compliance manufacturing units are of small and medium size. Even though back ended subsidy to these units under the Centrally sponsored component 'Drug Quality

Control' for establishing in-house quality control will be provided, these units also require other infrastructure like sophisticated packing machine, medicinal plants storage, testing facilities, other common quality control R&D facilities, and marketing assistance. Therefore 20 AYUSH industry clusters have been identified and an initiative for development of common facilities for these clusters will be made during the Eleventh Five Year Plan. They will be able to set benchmarks for quality control, packaging, testing of medicinal plants, brand development, and marketing development network, which are very necessary for globalizing AYUSH industry to capture a fair share of the global herbal market.

Drugs Quality Control

3.2.26 An increased outlay will be made during Eleventh Five Year Plan for strengthening the regulatory mechanism with a view to ensure safety, control, and efficacy of AYUSH medicines as a priority area. It is also proposed to reimburse to the States expenditure incurred on testing of AYUSH drugs through the network of National Accreditation Board for Testing and Calibration Laboratories accredited laboratories in the country. This is again a high priority to strengthen the enforcement of Drugs and Cosmetics Act in the country with regard to Ayurveda, Siddha, Unani, and Homoeopathy manufacturing units to create public confidence in India and abroad.

Financing AYUSH

3.2.27 The total Central Government investments in the AYUSH sector at the national level since the First Five Year Plan have ranged from 1% to 3% of the national health budget. In the States too, a small proportion of the health budget is assigned to AYUSH. The private sector investment in AYUSH industry (Rs 8800 crore turnover) is relatively large, while the private investments on research and education, public health services, and community health are relatively small. Gradually public investments for the AYUSH sector will be increased. The additional investments in AYUSH sector will not be exclusively put into government institutions. The government sector needs to be supplemented by appropriate investments through PPP and supported by non-government initiatives in strategic fields.

3.2.28 The new initiatives will be: International Co-operation including global market development; support for revitalization of local health traditions; assistance to accredited AYUSH Centres of Excellence in governmental and non-governmental sector engaged in AYUSH education, drug development and scientific validation and clinical research; AYUSH and Public Health; Cataloguing, digitization, and AYUSH IT network.

3.2.29 Some of the important new initiatives for Eleventh Five Year Plan are shown in Box 3.2.3.

3.2.30 ZBB exercise has been done for the Eleventh Five Year Plan (Annexure 3.2.4). The exercise was done to arrive at greater convergence among schemes with similar objectives for improving the efficacy and efficiency of Plan spending. The total projected GBS for the Eleventh Plan for the Department of AYUSH is Rs 3526 crore (at 2006–07 prices) and Rs 3988 crore (at current prices). Scheme-wise financial details for the Eleventh Five Year Plan have been provided in Appendix of Volume III.

Box 3.2.3
Important New Initiatives during the Eleventh Plan

- Development of common drug testing and other infrastructure facilities for AYUSH industry clusters
- Financial assistance to ASU&H Units for capacity building to improve quality control and R&D
- Support to centres of excellence in AYUSH education/drug development/clinical research/tertiary care
- Support for validation and revitalization of local health traditions
- Development of backward and forward linkages for in-situ conservation and ex-situ cultivation of medicinal plants for a sustainable ASU&H Industry
- Provision of marketing and value-added services to medicinal plant farmers
- Expansion of international cooperation and exchange programme with focus on global positioning of AYUSH systems and facilitation of cooperation with other countries in the areas of AYUSH education, research, and exports

Eleventh Five Year Plan Agenda

3.2.31 Successful implementation of the above-mentioned initiatives will enable AYUSH systems to contribute significantly to the health care of population while being an integral component of the health care system of our country.

3.2.32 The key interventions and strategies in the Eleventh Five Year Plan are enumerated below:

- Documenting measurable outputs for annual plan as well as for the five year plans that will facilitate designing and implementing systematic ME systems.
- Training in Public Health for AYUSH personnel is envisaged as an essential part of education and CME.
- Mainstreaming the system of AYUSH in National Health Care Delivery System by co-locating AYUSH facilities in primary health network.
- Restructuring Public Health Management to integrate AYUSH practitioners into the national health care system.
- Formulating a two-tiered research framework for AYUSH to interface with modern science while giving due cognizance and importance to development and application of theoretical foundations of the traditional knowledge systems and practices.
- Promoting scientific validation of AYUSH principles, remedies, and therapies.
- Revitalizing, documenting, and validating local health traditions of AYUSH.
- Improving the status of pharmacopoeial standards by setting up Pharmacopoeia Commission.
- Improving the status of quality of clinical services by creating specialty AYUSH Secondary and Tertiary Care Centres.
- Upgrading AYUSH undergraduate and postgraduate educational institutions by better regulation and establishing a system for NET type testing of AYUSH teachers and NAAC type assessment and accreditation of AYUSH undergraduate/postgraduate colleges.
- Ensuring conservation of medicinal plants gene pools as well as promoting cultivation of species in high trade and establishment of medicinal plants processing zones.
- Strengthening regulatory mechanism for ensuring quality control, R&D, and processing technology involving accredited laboratories in the government and non-government sector.
- Establishing Centres of Excellence.
- Promoting international co-operation in research, education, health services, and trade, and market development.
- Digitizing India's vast corpus of medical manuscripts in collaboration with the National Manuscripts Mission.
- Promoting public awareness about the strengths and contemporary relevance of AYUSH through IEC.

ANNEXURE 3.1.1
Department of Health and Family Welfare (Other than NRHM)—
Scheme-wise Outlay and Actual Expenditure during the Tenth Plan

(Rs in Crores)

S. No.	Name of the Schemes/Institutions	Outlay Tenth Plan (2002–07)	Tenth Plan (2002–07) Sum of Annual Outlay	Tenth Plan (2002–07) Actual Exp.
1	2	3	4	5
I.	**CENTRALLY SPONSORED PROGRAMMES**	**2045.80**	**3097.82**	**2718.36**
	Control of Communicable Diseases	1392.80	2165.17	2055.55
	1 NACP and National STD Control Programme	1392.80	2165.17	2055.55
	Control of NCDs	405.00	516.00	359.13
	2 Cancer	266.00	333.00	252.63
	(i) NCCP	266.00	333.00	252.63
	(ii) Tobacco Control Programme	0.00	0.00	0.00
	3 NMHP	139.00	183.00	106.50
	Other Programmes	248.00	355.65	299.45
	4 Assistance to State for Capacity Building for Trauma Care	110.00	140.00	142.03
	5 Assistance to States for Drug & PFA Control	138.00	215.65	157.42
	(i) Drugs Control	60.00		
	(ii) PFA Control	78.00		
	New Initiatives under CSS	0.00	61.00	4.23
	6 Initiatives during 2006–07	0.00	61.00	4.23
	(i) Telemedicine	0.00	15.00	0.00
	(ii) National Programme for Prevention and Control of Diabetes, (iii) CVD, and Stroke	0.00	5.00	0.00
	(iv) National Programme for Deafness	0.00	15.00	4.23
	(v) Other Initiatives	0.00	26.00	0.00
II	**CENTRAL SECTOR SCHEMES (CS)**	**5176.20**	**4926.58**	**3858.60**
	Control of Communicable Diseases	199.80	203.63	161.48
	7 NICD	65.00	62.17	49.93
	(i) Ongoing Activities (including Guineaworm & Yaws Eradication)	50.00		
	(ii) Strengthening of the Institute	15.00	4.00	0.00
	8 National Tuberculosis Institute, Bangalore	10.30	9.73	3.49
	9 BCG Vaccine Laboratory, Guindy, Chennai	19.50	17.27	9.48
	10 Pasteur Institute of India, Coonoor	35.00	44.00	31.18
	11 Lala Ram Sarup Institute of Tuberculosis and Allied Diseases, Mehrauli, Delhi	54.50	52.55	55.54
	12 Central Leprosy Training & Research Institute, Chengalpattu (Tamil Nadu)	5.50	7.00	4.73
	13 Regional Institute of Training, Research & Treatment under Leprosy Control Programme:	10.00	10.91	7.13
	(i) RLTRI, Aska (Orissa)	2.00	2.35	0.37
	(ii) RLTRI, Raipur (MP)	1.00	0.96	0.71
	(iii) RLTRI, Gauripur (WB)	7.00	7.60	6.05

(*Annexure 3.1.1 contd.*)

(*Annexure 3.1.1 contd.*)

1	2	3	4	5
	Hospitals & Dispensaries	567.00	796.03	609.22
	14 Central Government Health Scheme	80.00	132.50	122.43
	15 Central Institute of Psychiatry, Ranchi	50.00	62.20	30.17
	16 All India Institute of Physical Medicine & Rehabilitation, Mumbai	20.00	17.60	13.60
	17 Safdarjung Hospital and College, New Delhi	230.00	367.09	270.46
	18 Dr RML Hospital, New Delhi	150.00	175.64	138.35
	19 Institute for Human Behaviour & Allied Sciences, Shahdara, Delhi	7.00	4.00	0.00
	20 All India Institute of Speech & Hearing, Mysore	30.00	37.00	34.21
	Medical Education, Training, & Research	2981.10	3077.17	2774.62
	(a) Medical Education:	1951.00	1992.19	1649.56
	21 All India Institute of Medical Sciences and its Allied Departments, New Delhi	675.00	787.12	636.50
	22 PGIMER, Chandigarh	200.00	153.00	234.00
	23 JIPMER, Pondicherry	150.00	182.00	118.61
	24 Lady Hardinge Medical College & Smt. SK Hospital, New Delhi	200.00	95.00	68.33
	25 Kalawati Saran Children's Hospital, New Delhi	140.00	39.56	34.39
	26 Indira Gandhi Institute of Health & Medical Sciences for North East Region at Shillong	380.00	447.78	274.99
	27 NIMHANS, Bangalore	120.00	173.96	180.98
	28 Kasturba Health Society, Wardha	50.00	56.80	59.57
	29 National Medical Library, New Delhi	35.00	45.00	34.82
	30 NBE, New Delhi	1.00	11.97	7.37
	(b) Training	95.00	110.39	73.82
	31 Development of Nursing Services	82.00	102.00	70.14
	32 Nursing Colleges	13.00	8.39	3.68
	(i) RAK College of Nursing, New Delhi	11.00	6.46	2.69
	(ii) Lady Reading Health School	2.00	1.93	0.99
	(c) Research	870.00	841.00	962.00
	33 ICMR, New Delhi	870.00	841.00	962.00
	(d) Public Health	27.50	83.35	48.83
	34 PHFI	5.00	73.00	43.00
	35 All India Institute of Hygiene & Public Health, Kolkata (AIIH&PH) and Serologist and Chemical Examiner, Kolkata	22.50	10.35	5.83
	(i) AIIH&PH, Kolkota	20.00	8.90	5.22
	(ii) Serologist & Chemical Examiner, Kolkata	2.50	1.45	0.61
	(e) Others	37.60	50.24	40.41
	36 Indian Nursing Council	2.10	3.20	2.50
	37 VP Chest Institute, Delhi	23.00	30.30	31.80
	38 National Academy of Medical Sciences, New Delhi	2.50	2.74	1.75
	39 MCI, New Delhi	5.00	5.00	4.36
	40 Medical Grants Commission	5.00	9.00	0.00
	Other Programmes	429.30	441.75	283.02
	(a) Health Education, Research, & Accounts	19.40	16.64	3.37
	41 Health Education	12.60	8.20	0.79
	42 Health Intelligence and Health Accounts	6.80	8.44	2.58

(*Annexure 3.1.1 contd.*)

(*Annexure 3.1.1 contd.*)

1	2	3	4	5
	(i) Intelligence	3.80	4.44	2.58
	(ii) Accounts	3.00	4.00	0.00
	(b) Strengthening of DGHS/Ministry:	20.00	23.40	16.55
43	I. Strengthening of Departments under the Ministry	12.00	15.00	11.68
	II. Strengthening of DGHS	8.00	8.40	4.87
	(c) Emergency Medical Relief	30.00	87.00	35.96
44	Health Sector Disaster Preparedness and Management	30.00	47.00	23.25
45	Emergency Medical Relief (including Avian Flu)	0.00	40.00	12.71
	(d) Miscellaneous	359.90	314.71	227.14
46	Central Research Institute, Kasauli	50.00	30.88	23.37
47	National Institute of Biologicals, Noida (UP)	170.90	166.50	152.13
48	PFA	78.00	47.20	14.95
49	Central Drug Standard & Control Organization (CDSCO)	52.00	62.90	35.37
50	Port Health Authority	9.00	7.23	1.32
	(i) Jawaharlal Nehru Port Sheva	1.50	2.03	1.30
	(ii) Setting up of offices at 8 newly created international airports	7.50	5.20	0.02
51	PMSSY	999.00	385.00	20.94
	Dropped/Transferred Schemes	43.00	62.40	44.62
1	Hospital Waste Management	10.00	10.00	10.82
2	UNDP Pilot Initiatives for Community Health	0.00	8.90	0.00
3	Training of MO of CHS	0.00	0.00	0.01
4	RHTC, Najafgarh	0.00	0.00	1.48
5	Drug De-addition Control Programme	33.00	20.50	22.99
6	Bhuj Hospital	0.00	23.00	9.32
	Grand Total	7265.00	8063.80	6612.26

Note: Exp. stands for Expenditure; MO stands for Medical Officers.
Source: MoHFW.

ANNEXURE 3.1.2
Department of Health (H) and Family Welfare (FW)—NRHM#

(Rs in Crores)

S. No.	Name of the Schemes	Outlay Tenth Plan (2002–07)	Tenth Plan (2002–07) Sum of Annual Outlay	Tenth Plan (2002–07) Actual Exp.
1	2	3	4	5
CENTRALLY SPONSORED SCHEMES (CSS) OF FAMILY WELFARE		**24169.20**	**28011.97**	**23854.74**
1	Direction & Administration	1100.00	1176.66	999.93
2	Rural FW Services (SCs)	9663.00	8881.29	7561.01
3	Urban FW Services	580.00	638.17	539.48
4	Grants to State Training Institutions	480.00	500.37	411.08
5	Free Distribution of Contraceptives	940.00	760.22	627.97
6	Sterilization (Beds)—(Weeded)	12.00	10.25	8.78
7	Family Welfare Linked Health Insurance	150.00	105.10	10.63
8	Training	250.00	143.81	71.60
9	Procurement of Supplies and Materials	994.98	1141.30	335.14
10	Routine Immunization	1557.88	1625.50	783.44
11	Pulse Polio Immunization	3110.00	3887.70	3999.56
12	IEC	539.50	569.87	542.42
13	Area Projects	1750.00	1838.14	1250.60
14	Flexible Pool for State PIPs	3041.84	6733.59	6713.10
CENTRAL SECTOR SCHEMES (CS) OF FAMILY WELFARE		**1367.80**	**1611.53**	**1180.69**
1	Social Marketing Area Projects	20.00	35.00	0.00
2	Social Marketing of Contraceptives	660.00	790.04	599.70
3	FW Training and Res. Centre, Bombay	10.00	10.53	2.31
4	NIHFW, New Delhi	20.00	25.45	19.91
5	IIPS, Mumbai	10.00	9.57	8.09
6	Rural Health Training Centre, Najafgarh	45.00	12.42	1.56
7	Population Research Centres	45.00	39.13	30.01
8	CDRI, Lucknow	12.00	12.65	12.85
9	ICMR and IRR	100.00	150.00	162.44
10	Travel of Experts/Conference/Meetings etc. (Melas)	57.00	17.00	47.84
11	International Co-operation	9.00	8.44	6.73
12	NPSF/National Commission on Population	100.00	116.00	104.08
13	NGOs (PPP)	130.00	241.61	88.95
14	Other Schemes	149.80	143.69	96.22
TRANSFERRED TO STATES/WEEDED DURING TENTH PLAN		**589.00**	**417.50**	**291.12**
1	District Projects	51.00	105.00	40.95
2	Community Incentive Scheme	200.00	62.00	0.00
3	Transport	313.00	223.00	248.02
4	New Initiatives	25.00	27.50	2.15
TO NACO		**0.00**	**200.00**	**265.99**
FAMILY WELFARE (TOTAL)		**26126.00**	**30241.00**	**25592.54**
DISEASE CONTROL PROGRAMMES OF HEALTH		**2987.00**	**3280.20**	**2745.65**
1	Vector-borne (CSS)	1349.00	1496.03	1186.11
2	Tuberculosis (CSS)	662.00	758.17	756.88
3	Leprosy (CSS)	236.00	288.00	224.54
4	IDD (CSS)	35.00	49.00	42.71
5	Blindness (CSS)	445.00	439.00	458.15
6	Integrated Disease Surveillance (CS)	260.00	250.00	77.26
	GRAND TOTAL	29113.00	33521.20	28338.19

Note: # Includes corresponding H&FW schemes of NRHM up to 2004–05. To accommodate PMSSY, the approved Tenth Plan Outlay of the Department of Family Welfare was reduced from 27125 crore to Rs 26126 crore (Rs 999 crore was transferred to the Department of Health).

Source: MoHFW.

ANNEXURE 3.1.3
Health—State Plan Outlays and Expenditure

(Rs lakhs)

State/UT	Tenth Plan	2002–03		2003–04		2004–05		2005–06		2006–07	
	Outlay	Outlay	Exp.	Outlay	Exp.	Outlay	Exp.	Outlay	Exp.	Outlay	RE
1	2	3	4	5	6	7	8	9	10	11	12
Andhra Pradesh	133024.00	24309.00	22008.16	40995.00	35362.36	40995.44	31427.72	43269.24	33964.48	53574.24	53574.24
Arunachal Pradesh	23129.00	2181.00	2181.01	2201.00	2099.23	2781.35	3185.00	1828.82	1478.36	1970.00	3850.00
Assam	57069.00	8648.00	8194.35	7682.00	7882.00	6529.00	6529.00	5687.00	4203.54	21399.00	21399.00
Bihar	107920.00	13703.00	10731.11	13699.00	12343.11	14182.02	14389.78	12721.80	15426.00	13700.00	13822.00
Chhattisgarh	43418.00	6935.00	5550.00	8083.00	8083.00	15076.00	12462.52	14287.44	10035.86	33249.90	25165.69
Goa	13135.00	1895.00	1888.48	3175.00	2568.54	3521.33	3149.21	4132.99	4579.65	4495.00	4495.00
Gujarat	116616.00	21387.00	15192.32	25221.00	21472.13	25294.00	25294.00	43494.00	43494.00	45994.00	45994.00
Haryana	96062.00	6280.00	2233.22	7800.00	5757.51	7124.00	5843.76	10200.00	10000.50	11450.00	11450.00
Himachal Pradesh	78772.00	13414.00	12905.15	19517.00	18066.07	18295.79	19734.27	18476.60	19629.56	19948.92	19948.92
J&K	79666.00	13000.00	12861.04	14864.00	13752.90	16330.87	17748.78	21061.70	21954.04	21864.25	21864.25
Jharkhand	65000.00	11575.00	6498.00	9700.00	6339.98	14040.00	13371.59	15000.00	14020.07	26800.00	16225.00
Karnataka	153052.00	19247.00	17715.31	13974.00	19189.66	18011.51	15731.51	33239.29	26602.68	34098.61	48151.64
Kerala	40840.00	7135.00	7916.65	9748.00	5170.31	10130.00	6813.87	10035.00	10196.62	9650.00	9650.00
MP	71533.00	14016.00	14520.93	18105.00	15444.43	20298.09	17763.95	20587.00	20747.97	16961.91	23193.47
Maharashtra	110666.00	40740.00	21632.92	76435.00	33244.78	18663.93	31192.05	77874.10	35138.73	88228.54	88228.54
Manipur	8173.00	1415.00	304.23	2280.00	940.96	1915.91	789.52	499.00	558.20	2837.00	3215.00
Meghalaya	18000.00	3020.00	3219.79	3550.00	3773.09	4042.00	4071.31	4484.00	4676.31	4750.00	4750.00
Mizoram	12370.00	2860.00	2725.99	2975.00	4185.67	3000.00	2950.10	3480.00	3378.10	4000.00	4102.06
Nagaland	7965.00	1548.00	1562.14	2383.00	2514.00	2207.15	2114.87	2263.00	1991.93	2363.00	2578.00
Orissa	52139.00	12777.00	7283.09	21694.00	9256.11	11739.19	10281.41	14348.19	7659.27	4052.20	3002.20
Punjab	53081.00	9298.00	6483.49	10450.00	5971.99	7508.93	2133.32	2743.13	1247.13	5019.10	5019.10
Rajasthan	56892.00	12778.00	4034.19	8236.00	5434.80	10811.56	9736.64	18605.59	15384.70	20615.60	21822.16
Sikkim	8000.00	1600.00	1408.04	1606.00	1454.87	2210.00	2200.56	1840.00	1984.87	1690.00	1790.00
Tamil Nadu	70000.00	10440.00	14285.27	16314.00	15963.39	19400.66	17402.60	26874.17	39745.00	46564.75	38074.55
Tripura	25072.00	1480.00	1407.34	2013.00	2243.86	2535.36	3040.42	2662.21	4831.84	6459.60	8376.42
UP	240543.00	27826.00	25950.00	33927.00	19745.93	33009.00	38352.82	85421.00	91526.63	188763.00	189570.00
Uttaranchal	38767.00	4286.00	5768.50	7359.00	6302.53	8759.31	9978.76	8790.92	17710.21	18600.00	18600.00
WB	103618.00	27898.00	14137.89	21193.00	18590.41	23739.80	15392.06	40207.80	25440.14	44289.68	38482.68
A&N Islands	11400.00	2050.00	2119.64	2150.00	2312.26	2390.00	2382.96	3321.00	2832.22	3657.00	3657.00
Chandigarh	22426.00	3803.65	3944.93	3111.00	3546.75	3477.00	3355.33	3392.00	2983.27	3587.00	3587.00
D&N Haveli	1225.00	238.00	269.57	266.00	301.67	343.00	403.20	400.00	561.27	470.00	470.00
Daman & Diu	1750.00	194.15	217.68	228.00	282.85	290.00	301.03	350.00	462.84	414.00	424.50
Delhi	238150.00	38970.00	33043.43	42692.00	38942.11	53775.00	46989.16	60600.00	54336.37	69120.00	76160.30
Lakshadweep	901.30	275.20	232.33	227.00	264.90	225.00	166.73	242.00	236.70	178.00	178.00
Pondicherry	16360.00	3272.09	3000.21	3205.00	3259.04	4160.00	4196.59	5635.00	5665.74	9485.00	12681.40
Total	2176734.30	370494.09	293426.40	457058.00	352063.20	426812.20	400876.40	618053.99	554684.80	840299.30	843552.12

Note: RE stands for Revised Estimate.
Source: Planning Commissioin.

ANNEXURE 3.1.4
Maternal Mortality Ratio—India and Major States

(per 100000 live births)

India & Major States	MMR 1998	MMR 2001–03	Eleventh Five Year Plan Goal
India	407	301	100
Assam	409	490	163
Bihar/Jharkhand	452	371	123
MP/Chhattisgarh	498	379	126
Orissa	367	358	119
Rajasthan	670	445	148
UP/Uttarakhand	707	517	172
Andhra Pradesh	159	195	65
Karnataka	195	228	76
Kerala	198	110	37
Tamil Nadu	79	134	45
Gujarat	28	172	57
Haryana	103	162	54
Maharashtra	135	149	50
Punjab	199	178	59
WB	266	194	64

Source: 2001–03 Special Survey of Deaths, RGI (2006).

ANNEXURE 3.1.5
Sex Ratio (0–6 Years) (India and States/UTs)

S. No.	State/UT	Current Level	Goal by 2011–12	Goal by 2016–17
1	2	3	4	5
	India	927	935	950
1	A&N Islands	957	965	981
2	Andhra Pradesh	961	969	985
3	Arunachal Pradesh	964	972	988
4	Assam	965	973	989
5	Bihar	942	950	965
6	Chandigarh	845	875	900
7	Chhattisgarh	975	983	999
8	Dadra & Nagar Haveli	979	987	999
9	Daman & Diu	926	934	949
10	Delhi	868	875	900
11	Goa	938	946	961
12	Gujarat	883	891	905
13	Haryana	819	850	875
14	Himachal Pradesh	896	904	918
15	J&K	941	949	964
16	Jharkhand	965	973	989
17	Karnataka	946	954	969
18	Kerala	960	968	984
19	Lakshadweep	959	967	983
20	MP	932	940	955
21	Maharashtra	913	921	936
22	Manipur	957	965	981
23	Meghalaya	973	981	997
24	Mizoram	964	972	988
25	Nagaland	964	972	988
26	Orissa	953	961	977
27	Pondicherry	967	975	991
28	Punjab	798	850	875
29	Rajasthan	909	917	932
30	Sikkim	963	971	987
31	Tamil Nadu	942	950	965
32	Tripura	966	974	990
33	UP	916	924	939
34	Uttarakhand	908	916	931
35	WB	960	968	984

Source: Curent Level, Census 2001.

ANNEXURE 3.1.6
Infant Mortality Rate—India and States/UTs

(per 1000 live births)

S. No.	State/UT	Current Level	Eleventh Five Year Plan Goal
	India	58	28
1	Andhra Pradesh	57	28
2	Assam	68	33
3	Bihar	61	29
4	Chhattisgarh	63	30
5	Delhi	35	17
6	Gujarat	54	26
7	Haryana	60	29
8	J&K	50	24
9	Jharkhand	50	24
10	Karnataka	50	24
11	Kerala	14	7
12	MP	76	37
13	Maharashtra	36	17
14	Orissa	75	36
15	Punjab	44	21
16	Rajasthan	68	33
17	Tamil Nadu	37	18
18	UP	73	35
19	WB	38	18
20	Arunachal Pradesh	37	18
21	Goa	16	8
22	Himachal Pradesh	49	24
23	Manipur	13	6
24	Meghalaya	49	24
25	Mizoram	20	10
26	Nagaland	18	9
27	Sikkim	30	14
28	Tripura	31	15
29	Uttarakhand	42	20
30	A&N Islands	27	13
31	Chandigarh	19	9
32	Dadra & Nagar Haveli	42	20
33	Daman & Diu	28	14
34	Lakshadweep	22	11
35	Pondicherry	28	14

Source: Current level—SRS Bulletin, Vol. 41, No. 1, October 2006.

ANNEXURE 3.1.7
Total Fertility Rate—India and Major States

S. No.	State	Current Level	Eleventh Five Year Plan Goal
	India	2.9	2.1
1	Andhra Pradesh	2.1	1.8
2	Assam	2.9	2.3
3	Bihar	4.3	3.0
4	Chhattisgarh	3.3	2.4
5	Delhi	2.1	1.8
6	Gujarat	2.8	2.2
7	Haryana	3.0	1.9
8	Himachal Pradesh	2.1	1.8
9	J&K	2.4	2.0
10	Jharkhand	3.5	2.5
11	Karnataka	2.3	1.8
12	Kerala	1.7	1.7
13	MP	3.7	2.6
14	Maharashtra	2.2	1.9
15	Orissa	2.7	2.1
16	Punjab	2.2	1.8
17	Rajasthan	3.7	2.6
18	Tamil Nadu	1.8	1.7
19	UP	4.4	3.0
20	WB	2.2	1.8

Note: Figures for other States are not available.
Source: Current level—Statistical Report, RGI (2004).

ANNEXURE 3.1.8
Schemes under Health and Family Welfare

S. no.	Ministry/ Department	No. of Schemes Towards the End of Tenth Plan	Weeded/Transferred Towards the End of Tenth Plan	To be Continued During Eleventh Five Year Plan	New Schemes During Eleventh Five Year Plan	Total Schemes During Eleventh Five Year Plan
Central Sector Schemes (CS)						
1	Health	49	3	6 (Ongoing Schemes clubbed as 6 Schemes)	6	12
2	Family Welfare	14	Nil	– (Ongoing Schemes clubbed with above)		
Centrally Sponsored Schemes (CSS)						
1	Health	14	3	6 (Ongoing Schemes merged into 6 Schemes)	7	13
2	Family Welfare	14	1	– (Ongoing Schemes merged with above)		

ANNEXURE 3.2.1

State-wise/System-wise Number of AYUSH Hospitals with their Bed Strength in India as on 1.4.2007

S. No.	States/UTs & others	Ayurveda		Unani		Siddha		Yoga		Naturo-pathy		Homoeo-pathy		Total	
		Hosp.	Beds	Hosp.	Beds	Hosp.	Beds	Hosp.	Beds	Hosp.	Beds	Hosp.	Beds	Hosp.	Beds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1	Andhra Pradesh	9	584	6	310	0	0	0	0	1	120	6	300	22	1314
2	Arunachal Pradesh	1	10	0	0	0	0	1	10	0	0	1	50	3	70
3	Assam	1	100	0	0	0	0	1	25	0	0	3	105	5	230
4	Bihar	11	1356	4	459	0	0	0	0	0	0	11	510	26	2325
5	Chhattisgarh	8	365	1	90	0	0	0	0	1	50	3	100	13	605
6	Delhi	10	643	2	111	0	0	2	65	4	125	2	150	20	1094
7	Goa	1	40	0	0	0	0	0	0	0	0	1	25	2	65
8	Gujarat	48	1855	0	0	0	0	0	0	0	0	14	873	62	2728
9	Haryana	8	835	1	10	0	0	0	0	0	0	1	50	10	895
10	Himachal Pradesh	24	420	0	0	0	0	0	0	1	10	1	25	26	455
11	J&K	2	155	3	200	0	0	0	0	0	0	0	0	5	355
12	Jharkhand	1	160	0	0	0	0	0	0	0	0	2	82	3	242
13	Karnataka	122	8147	13	402	1	10	3	15	5	276	20	896	164	9746
14	Kerala	124	3987	0	0	2	170	0	0	1	40	33	1130	160	5327
15	MP	34	1626	3	250	0	0	0	0	0	0	20	1105	57	2981
16	Maharashtra	51	7673	6	635	0	0	0	0	0	0	44	3080	101	11388
17	Manipur	0	0	0	0	0	0	0	0	2	65	1	10	3	75
18	Meghalaya	1	10	0	0	0	0	0	0	0	0	7	70	8	80
19	Mizoram	0	0	0	0	0	0	0	0	1	14	0	0	1	14
20	Nagaland	0	0	0	0	0	0	0	0	0	0	1	10	1	10
21	Orissa	8	488	0	0	0	0	0	0	0	0	6	185	14	673
22	Punjab	15	1214	0	0	0	0	0	0	0	0	6	270	21	1484
23	Rajasthan	100	914	3	30	0	0	1	20	2	22	8	205	114	1191
24	Sikkim	1	10	0	0	0	0	0	0	0	0	0	0	1	10
25	Tamil Nadu	7	580	1	54	275	2131	0	0	0	0	9	460	292	3225
26	Tripura	1	10	0	0	0	0	0	0	0	0	1	10	2	20
27	UP	1771	10288	209	1585	0	0	0	0	0	0	8	350	1988	12223
28	Uttrakhand	7	319	2	8	0	0	0	0	0	0	1	50	10	377
29	WB	4	409	1	60	0	0	0	0	0	0	12	630	17	1099
30	A&N Islands	1	10	1	5	1	5	0	0	0	0	1	10	4	30
31	Chandigarh	1	120	0	0	0	0	0	0	0	0	1	25	2	145
32	Dadra & Nagar Haveli	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Daman & Diu	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	Lakshadweep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	Puducherry	1	10	0	0	0	0	0	0	0	0	0	0	1	10
36	CGHS	1	25	0	0	0	0	0	0	0	0	0	0	1	25
37	Research Council	24	600	12	280	2	85	0	0	0	0	6	85	44	1050
38	Ministry of Railways	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	Ministry of Labour	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	Ministry of Coal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	2398	42963	268	4489	281	2401	8	135	18	722	230	10851	3203	61561

Note: Figures are provisional; Hosp. = Hospitals.

Source: State governments and certain Central Government organizations.

ANNEXURE 3.2.2
State-Wise/System-wise Number of AYUSH Dispensaries in India as on 1.4.2007

S.No.	States/UTs and Others	Ayurveda	Unani	Siddha	Yoga	Naturopathy	Homoeopathy	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Andhra Pradesh	620	193	–	–	–	283	1096
2	Arunachal Pradesh	2	–	–	1	–	44	47
3	Assam	380	1	–	25	2	75	483
4	Bihar	311	144	–	–	–	179	634
5	Chhattisgarh	634	6	–	–	–	52	692
6	Delhi	148	25	–	4	2	98	277
7	Goa	11	–	–		–	3	14
8	Gujarat	501	–	–	1	8	216	726
9	Haryana	472	19	–	–	–	20	511
10	Himachal Pradesh	1105	3	–	–	–	14	1122
11	J&K	273	235	–	–	–	0	508
12	Jharkhand	122	30	–	–	–	54	206
13	Karnataka	589	51	–	–	5	42	687
14	Kerala	740	1	6	–	–	580	1327
15	MP	1427	50	–	–	–	146	1623
16	Maharashtra	490	25	–	–	1	0	516
17	Manipur	0	–	–	–	–	9	9
18	Meghalaya	12	–	–	–	–	10	22
19	Mizoram	0	–	–	–	–	1	1
20	Nagaland	–	–	–	–	–	–	0
21	Orissa	624	9	–	35	30	603	1301
22	Punjab	507	35	–	1	–	107	650
23	Rajasthan	3496	92	–		4	147	3739
24	Sikkim	1	–	–	–	–	1	2
25	Tamil Nadu	32	21	435	1	1	43	533
26	Tripura	55	–	–	–	–	93	148
27	UP	340	49	–	–	–	1482	1871
28	Uttrakhand	467	3	–	–	–	60	530
29	WB	295	3	–	–	–	1220	1518
30	A&N Islands	1	–	–	–	–	8	9
31	Chandigarh	6	–	–	–	–	5	11
32	Dadra & Nagar Haveli	3	–	–	–	–	1	4
33	Daman & Diu	1	–	–	–	–	–	1
34	Lakshadweep	2	–	–	–	–	1	3
35	Puducherry	16	–	16	–	–	7	39
36	CGHS	31	9	2	3	3	34	82
37	Research Council	6	5	2	–	–	40	53
38	Ministry of Railways	39	–	–	–	–	129	168
39	Ministry of Labour	127	1	3	–	–	29	160
40	Ministry of Coal	28	–	–	–	–	–	28
	Total	13914	1010	464	71	56	5836	21351

Note: Figures are provisional; – = Nil.
Source: State governments and certain Central Government organizations.

ANNEXURE 3.2.3
Department of AYUSH—Scheme-wise Tenth Plan Outlay and Expenditure

(Rs in crore)

S. No.	Name of Scheme	2002–07 Tenth Plan Approved Outlay	2002–07 Sum of Annual Outlay	2002–07 Sum of Actual Expenditure
1	2	3	4	5
1	Development of Institutions	120.00	155.72	120.81
2	Hospitals and Dispensaries	59.00	243.85	310.15
3	Drugs Quality Control	45.40	43.56	56.67
	Total CSS	224.40	443.13	487.63
1	Strengthening of Department of AYUSH	22.50	28.56	27.02
2	Statutory Institutions	2.65	2.75	0.69
3	Hospitals and Dispensaries	28.94	61.69	15.72
4	Strengthening of Pharmacopoeial Laboratories	26.50	36.17	9.97
5	IEC	19.00	18.71	19.27
6	Educational Institutions	116.50	147.75	125.18
7	Research Councils	140.50	206.78	195.64
8	Medicinal Plants	93.50	134.21	141.47
9	Other Programmes and Schemes	100.46	134.20	6.95
10	New Initiatives	0.05	0.05	0.01
	Total CS	550.60	770.87	541.92
	Total: (CSS + CS)	775.00	1214.00	1029.55

ANNEXURE 3.2.4
Schemes under Department of AYUSH

S. No.	Ministry/ Department	Number of Schemes towards the end of Tenth Plan	Weeded/ Transferred towards the end of Tenth Plan	To be continued during Eleventh Plan	New Schemes during Eleventh Plan	Total Schemes during Eleventh Plan
Central Sector Schemes (CS)						
1	AYUSH	10	0	5 (Ongoing Schemes clubbed as 5 Schemes)	3	8
Centrally Sponsored Schemes (CSS)						
1	AYUSH	3	0	1 (Ongoing Schemes merged into 1 Scheme)	2	3