

October, 2006

**Report of the Working Group on  
Public Health Services  
(including Water & Sanitation)  
for the Eleventh Five-Year Plan  
(2007-2012)**



**Ministry of Health & Family Welfare**

Nirman Bhawan, New Delhi – 110011

## INTRODUCTION

A Working Group was set up by the Planning Commission on Public Health Services (including Water and Sanitation) for the Eleventh Five Year Plan with the following Terms of Reference:

- (i) *To review existing scenario of Public Health Services (including Water & Sanitation) in urban and rural areas considering regional & inter district disparities and with a view to provide universal access to equitable, affordable and quality health care which is accountable at the same time responsive to the needs of the people and also achieve goals set under the National Health Policy and the Millennium Development Goals.*
- (ii) *To review the goals, objectives, strategies and expected outcomes of the National Rural Health Mission by the end of the eleventh five year period (2012) at all levels.*
- (iii) *To review the implementation of major health and family welfare programmes, functioning of infrastructure and manpower in rural and urban areas, and suggest measures for rationalizing/restructuring the infrastructure, strategies for improving efficiency and for the delivery of services with a special focus on women & children.*
- (iv) *To review the challenges of the immediate future such as aging population increased disease burden on account of new infections and non-communicable diseases that have the potential to impoverish the poor.*
- (v) *To review the mechanism for screening and referral of patients, so that they receive appropriate care at all levels.*
- (vi) *To review disease control programmes and disease surveillance mechanism in the country, its capability to provide up-to-date information for effective timely response to prevent/limit disease out breaks and to provide effective relief measures.*
- (vii) *Identify year-wise quantifiable goals and specific road map of the NRHM and also suggest method of concurrent evaluation of NRHM.*
- (viii) *To suggest modification in policies, priorities and programmes during 11<sup>th</sup> Plan period in relation to:*
  - (a) *Priority areas of research to investigate alternative strategies;*
  - (b) *Mid-course correction of ongoing activities;*
  - (c) *New initiatives;*

- (d) Strategies to improve quality and coverage of services at affordable cost, to cope with existing, reemerging and new challenges in communicable diseases, emerging problems of non-communicable diseases due to increasing longevity, life style changes and environmental degradation;*
- (e) Provide all these services through NRHM and secondary health care system in an integrated fashion;*
- (f) Improve disease surveillance, HMIS, effective timely response.*
  
- (ix) To indicate manpower requirement and financial outlays required for implementation of these programmes during the 11<sup>th</sup> Plan period;*
  
- (x) To deliberate and give recommendations on any other matter relevant to the topic.*

The Composition of the Working Group is at Annexure-I. The meeting of the Working Group was held on 17 August 2006 and the Report is based on the suggestions obtained from Members.

The Terms of Reference (TOR) assigned to the Working Group is wide ranging as it intends to cover not merely the health sector but also services relating to the determinants of health including water and sanitation. As some of these terms are inter-related, the TORs have been merged to facilitate focused analysis and recommendations. In this regard, the TOR at (ii) and (vii) relating to the National Rural Health Mission have been deliberated at one place. In respect of certain other terms of reference, while the salient issues have been discussed, the detailed status including the framework required for the 11<sup>th</sup> Plan may be referred to in the reports of the corresponding Working Groups. Specific mention of TOR (iii) and TOR (vi) are relevant in this context. In the case of TOR (iii), there is a separate Working Group which has delved into in great detail about the health of women and children, while in the case of TOR (vi), the Working Group on Communicable and Non-communicable Diseases have reviewed the entire gamut of Disease Control Programmes including surveillance and the details of the action plan proposed for the 11<sup>th</sup> Five Year Plan is contained in that report.

The Working Group had the benefit of the recommendations made in the Mid-Term Appraisal of the Tenth Five Year Plan by the Planning Commission, the Report of the National Commission on Macro Economics on Health and the Framework for Implementation of the NRHM. Additionally, the reports generated by the Task Forces while formulating and implementing the Rural Health Mission have also been available to this Group.

The Report attempts to place in greater focus the lessons learnt from the current experience and draw up an action plan for improving the availability, accountability and affordability of public health services including water and sanitation.

### *Terms of Reference-1*

*(i) To review existing scenario of Public Health Services (including Water & Sanitation) in urban and rural areas considering regional and inter district disparities and with a view to provide universal access to equitable, affordable and quality health care which is accountable at the same time responsive to the needs of the people and also achieve goals set under the National Health Policy and the Millennium Development Goals.*

Public Health services play a critical role in promoting, restoring or maintaining the health status of a population whether they do so effectively depends on which services are provided and how they are organized. These services basically take the form of healthcare infrastructure, manpower facilities relating to supply of clean drinking water, sanitation and hygiene besides a host of other inter-related activities. In terms of physical infrastructure, there exists a network of 1,46,026 sub-centres, 23,236 PHCs and 3346 CHCs with the sub-centres catering to a population of 1 per 5000 (3000 in the case of tribal areas), 1 per 30,000 population in respect of PHCs (20,000 in tribal and desert areas) and 1 per 1,20,000 in CHCs in general areas ( as against 1 per 80,000 population in tribal / desert areas ). Availability of medical manpower for the country as a whole shows that for every 1,00,000 population there are 70 doctors. Across rural areas, the public health manpower include 28,930 nurse mid-wives, 1,33,194 ANMs, 61,907 male MPWs, 17,708 pharmacists and 58,752 paramedical staff in addition to non technical staff.

With this infrastructure, significant progress has been achieved in the planning era as evident from the trends in the health sector as given below:

**Table 1 : INDIA – SELECT HEALTH INDICATORS**

S.No.	Parameter	1951	1981	1991	Current level
1	Crude birth rate (Per 1000 population)	40.8	33.9	29.5	24.8(2003)
2.	Crude death rate (Per 1000)	25.1	12.5	9.8	8.0 (2003)
3.	Total fertility rate(TFR) (Per Woman)	6.0	4.5	3.6	3.0 (2001)
4.	Maternal mortality ratio (MMR) (Per 100,00 live births)	NA	NA	437 (1992-93)	407(1998)
5.	Infant mortality rate (IMR) (Per 1000 live births)	146 (1951-61)	110	80	60(2003)
6.	Child (0-4) mortality rate (Per 1000 children)	57.3 (1972)	41.2	26.5	17.8(2002)
7.	Couple protection rate (per cent)*	10.4 (1971)	22.8	44.1	48.2(1998-99)
8.	Life Expectancy at birth				
	8.1 Male	37.2	54.1	59.7 (1991-95)	63.9(2001-08)
	8.2 Female	36.2	54.7	60.9 (1991-95)	66.9(2001-06)

**Note:** \* National Family Health Survey                      **NA: Not Available**

**Source: Economic Survey 2005-06**

The health outcomes for India as a whole disaggregated by major States is at Annexure-II.

However, despite a massive public health infrastructure that has been created over the plans, the determinants of health have not been assigned the desired focus limiting the success that could have been otherwise achieved. Alongside another discernible phenomenon is that the public health care facilities have been accessed and utilized differently in the rural and urban areas for purposes of outpatient and inpatient care. According to the NSSO 60<sup>th</sup> Round, public facilities for outpatient care have been accessed by 22% in the rural areas and 19% in the urban areas. It may be pertinent to note that while % of treated ailments receiving non-hospitalized treatment from government sources registered a slight increase from 19 to 22 during 1995-96 to 2004, it

revealed a marginal decline in urban areas from 20 to 19 during the same period. States showing an increase in this share were Orissa, Kerala, Karnataka and Rajasthan in respect of rural areas and Orissa, Punjab and Rajasthan in respect of urban areas. The States of Bihar and Gujarat showed a decline in the share of public institutions in treatment of non-hospitalized ailments in the rural and urban areas while a significant decline in the share of public institutions in treating ailments can be seen in the urban areas of Kerala, Maharashtra and Tamil Nadu. However between 1986-97 and 2004, outpatient care in urban areas from government services have registered a steep fall from 24% to 19%. A state-wise picture capturing the variations across States and during the last 3 rounds of survey by NSSO over the period 1986-87 to 2004 in respect of both rural and urban areas for outpatient care is given in Annexure III.

As regards hospitalized treatment the picture is even more discouraging (captured in the 60<sup>th</sup> Round). The private sector has been the main provider of inpatient healthcare both in the rural and urban areas and the roles between the private and public sector seem to have reversed as evident from the table below:-

**Table 2 : Per 1000 distribution of cases of hospitalized treatment by type of hospital during 2004, 1995-96 and 1986-87**

Type of Hospital	Rural			Urban		
	2004 (60 <sup>th</sup> )	1995-96 (52 <sup>nd</sup> )	1986-87 (42 <sup>nd</sup> )	2004 (60 <sup>th</sup> )	1995-96 (52 <sup>nd</sup> )	1986-87 (42 <sup>nd</sup> )
Govt.	417	438	597	382	431	603
Non-Govt.	583	562	403	618	569	397

**Source: NSSO 60<sup>th</sup> Round-Report 507 on Morbidity, Healthcare and condition of aged.**

Reliance on the public sector for hospitalized treatment varied largely between States. The state-wise variations as captured by the 60<sup>th</sup> Round is at Annexure-IV.

According to the NSSO 60<sup>th</sup> Round, the proportion of hospitalized treatments received from public sector hospitals varied from 144 in Bihar to 913 in J&K in the rural areas. Besides J&K, 3 other States namely Orissa, West Bengal and Himachal Pradesh reported relatively high proportion of cases of hospitalized treatment from public institutions. The States of Andhra Pradesh, Bihar, Haryana, Maharashtra and Uttar Pradesh showed a high degree of reliance on private sector hospitals. 62% of beds were in government hospitals but the performance in the public hospitals in terms of proportion of hospitalized cases treated falls short of the beds in public institutions.

More than one third of all deaths in India are in the under 15 age group, most of them infants. The regional variation is best highlighted with States like Bihar, Madhya Pradesh, Uttar Pradesh, and Rajasthan reporting more than 40% of all deaths in the under 15 age group as compared to only 6 percent such deaths in Kerala, as recently as 1998. Similarly, more than two thirds die before reaching age 60 in the first category of States, compared to only one third in the case of Kerala and half in the case of Tamil Nadu, Maharashtra and Himachal Pradesh. If this data is analyzed further for gender and social groups, clearly women from poorer households suffer the most. This is well documented in the surveys of NFHS and NSS.

Access to rural and urban water supply, drainage and sanitation equally contribute to good health. Though efforts to address these determinants have been made in the past, a large segment of the population have lived without them. Water is a state subject akin to health and the schemes for providing drinking water facilities are implemented by the States. The efforts of the Central Government are in the nature of financial and technical assistance and merely supplement the initiatives of the State Governments. As of April, 2005, 96.1% or

rural habitations were fully covered and 3.6% were partially covered leaving 0.3% not covered with drinking water facilities.

State-wise data indicate that while in most States, habitations in rural areas have been fully covered, habitations not covered are as high as 2300 in Rajasthan, 803 in Punjab, 660 in J&K and 327 in Maharashtra. A habitation survey conducted in 2003 indicate large incidences of slippage from fully covered to partially/not covered categories due to a number of factors such as: services going dry, lowering of ground water level, systems outliving their lives and increase in population resulting in lower per capita availability. In terms of absolute numbers, according to the Department of Drinking Water Supply, the population under rural water supply programme during 2005-06 is 188.32 lakhs of which SCs constituted 32.85 lakhs, STs 22.17 lakhs and general population 133.29 lakhs.

Sanitation is another factor decelerating Improvements in health status. Data collected in Census 2001 quoted in the National Health Profile 2005 indicates the percentage of households by toilet availability and type of drainage connectivity. The state-wise scenario is at Annexure-V. While households having bathroom facility within the house is abysmally low in rural areas and urban areas in the BIMARU States, NE, J&K and Orissa, the position in respect of connectivity for waste water outlet is even more alarming. While closed drainage is available in the urban areas atleast in the developed States, a large percentage of bathrooms across all States in the country have no drainage system particularly in the rural areas. This percentage is as high as 73.88 in Orissa, 72.69 in Assam and 71.81 in Chhattisgarh. The non-availability of toilets within the house in % terms is as high 71.94 in Bihar, 76.78 in Chhattisgarh and 73.03 in Jharkhand. In urban areas, the % of households not having toilet is marked in the case of Goa (15.26), Maharashtra (17.75), Chandigarh (17.83), Delhi (19.58) and Tamil Nadu (14.84).

The baseline survey data from the PIPs of States compiled from October, 2003 onwards gives the status of household sanitation coverage in terms of toilet coverage and their economic status.

The state-wise sanitation coverage in habitations, anganwadi centres and schools as reported in the State PIPs since 2003 are given in Annexures VI, VII and VIII. The situation is further compounded on account of manual scavenging prevalent particularly in rural areas. Lack of these basic amenities of sanitation has posed a serious health hazard and the recent epidemics of chikunguniya and dengue can be traced to unhygienic living conditions. Absence of safe drinking water combined with lack of proper sanitation have very often been important factors contributing to ill health and morbidity levels in the country.

The public health system in a sense has also not met the principle of equity in its delivery of healthcare services. This may be traced to a series of factors ranging from lack of medical personnel, drugs and equipment, inaccessible facilities or due to a poorly dysfunctional organization of the health system even where in some cases inputs exist and financial support is adequate and well-distributed. The National Health policy 2002 has highlighted the inequity in access to and availing of services by the disadvantaged groups. Infact the differentials in health status among socio-economic groups can be seen from the table below:

**Table 3: Differentials in Health status among Socio-economic Groups**

Indicator	Infant Mortality/1000	Under 5 Mortality/1000	% Underweight Children
India	70	94.9	47
Social Inequity			
Scheduled Castes	83	119.3	53.5
Scheduled Tribes	84.2	126.6	55.9
Other Disadvantaged	76	103.1	47.3
Others	61.8	82.6	41.1

Source: National Health Policy 2002.

Besides equity between different sections across the board, this has taken a toll on women and gender sensitive interventions not given adequate focus.

The health status and burden of disease in different social groups as documented in the NCMH Report compiled from NFHS-II, 1998-99 is at Annexure-IX.

The key challenge continues to be the prevalence of high levels of inequity in health conditions across and within States and different strata of population. The multi sectoral determinants of health largely explain the variation in outcomes between different region/states. Malnourished children are easily susceptible to diseases and die from them. The environment in which we live particularly if it has no sanitation or poor sanitation provide a fertile environment for transmission of intestinal infections. Growth in vehicular traffic and primitive modes of cooking especially in rural areas give rise to a variety of respiratory diseases.

Inadequacy and ineffective public health services combined with a clear absence of convergence between different programmes and Departments have promoted implementation of a variety of initiatives within and outside the health sector without maximizing outcomes in a holistic and cost effective manner. Community participation is also not always clearly visible in several of our endeavour which is ubiquitous for the success of any intervention.

## **TERMS OF REFERENCE (II) & (VII)**

- (ii) To review the goals, objectives, strategies and expected outcomes of the National Rural Health Mission by the end of the eleventh five year period (2012) at all levels.***
  
- (vii) Identify year-wise quantifiable goals and specific road map of the NRHM and also suggest method of concurrent evaluation of NRHM.***

The National Rural Health Mission (NRHM) has been launched with a view to provide effective healthcare to rural population throughout the country with special focus on 18 States, which have weak public health indicators and/or weak infrastructure. These 18 special focus states include Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Jammu and Kashmir, Manipur, Mizoram, Meghalaya, Madhya Pradesh, Nagaland, Orissa, Rajasthan, Sikkim, Tripura, Uttaranchal and Uttar Pradesh. The Mission seeks to provide universal access to equitable, affordable and quality health care which is accountable at the same time responsive to the needs of the people, reduction of child and maternal deaths as well as population stabilization, gender and demographic balance. Besides it aims at revitalizing local health traditions, mainstream AYUSH and effectively integrate health concerns through decentralized management at the district with determinants of health like sanitation and hygiene, nutrition, safe drinking water, gender and social concerns, In the process, the Mission would help achieve goals set under the National Health Policy and the Millennium Development Goals as also address inter and intra state disparities.

The NRHM, an architectural correction mechanism is envisaged to operate in a mission mode for a seven year period from 2005-2012. The activities to be undertaken alongwith its phasing and timeline over the mission period is captured in the table below:

### TIME LINE FOR NRHM ACTIVITIES

	Activity	Phasing and time line
1	Fully trained Accredited Social Health Activist (ASHA) for every 1000 population/large isolated habitations.	50% by 2007 100% by 2008
2	Village Health and Sanitation Committee constituted in over 6 lakh villages and untied grants provided to them.	30% by 2007 100% by 2008
3	2 ANM Sub Health Centres strengthened/established to provide service guarantees as per IPHS, in 1,75000 places.	30% by 2007 60% by 2009 100% by 2010
4	30,000 PHCs strengthened/established with 3 Staff Nurses to provide service guarantees as per IPHS.	30% by 2007 60% by 2009 100% by 2010
5	6500 CHCs strengthened/established with 7 Specialists and 9 Staff Nurses to provide service guarantees as per IPHS.	30% by 2007 50% by 2009 100% by 2010
6	1800 Taluka/ Sub Divisional Hospitals strengthened to provide quality health services.	30% by 2007 100% by 2010
7	600 District Hospitals strengthened to provide quality health services.	30% by 2007 60% by 2009 100% by 2010
8	Rogi Kalyan Samitis/Hospital Development Committees established in all CHCs/Sub Divisional Hospitals/ District Hospitals.	50% by 2007 100% by 2009
9	District Health Action Plan 2005-2012 prepared by each district of the country.	50% by 2007 100% by 2008
10	Untied grants provided to each Village Health and Sanitation Committee, Sub Centre, PHC, CHC to promote local health action.	50% by 2007 100% by 2008
11	Annual maintenance grant provided to every Sub Centre, PHC, CHC and one time support to RKs at Sub Divisional/ District Hospitals.	50% by 2007 100% by 2008
13	Systems of community monitoring put in place.	50% by 2007 100% by 2008.
14	Procurement and logistics streamlined to	50% by 2007

	ensure availability of drugs and medicines at Sub Centres/PHCs/ CHCs.	100% by 2008.
15	SHCs/PHCs/CHCs/Sub Divisional Hospitals/ District Hospitals fully equipped to develop intra health sector convergence, coordination and service guarantees for family welfare, vector borne disease programmes, TB, HOV/AIDS, etc.	30% by 2007 50% by 2008 70% by 2009 100% by 2010
16	District Health Plan reflects the convergence with wider determinants of health like drinking water, sanitation, women's empowerment, child development, adolescents, school education, female literacy, etc.	30% by 2007 60% by 2008 100% by 2009
17	Facility and household surveys carried out in each and every district of the country.	50% by 2007 100% by 2008
18	Annual State and District specific Public Report on Health published	30% by 2008 60% by 2009 100% by 2010.
19	Institution-wise assessment of performance against assured service guarantees carried out.	30% by 2008 60% by 2009 100% by 2010.
20	Mobile Medical Units provided to each district of the country.	30% by 2007 60% by 2008 100% by 2009.

The outcomes under the different activities will be monitored through a mix of several measures that will include annual facility surveys, external assessments, calling for quarterly and annual progress reports.

A review of the progress achieved as of October, 2006 under the Mission reveals the following:

**1. Institutional arrangements set up**

- *State Health Missions constituted in all States/UTs.*
- *State launch along with orientation of DMs/CMOs completed in 15 focus states.*
- *Merger of Departments of Health & Family Welfare completed in all states except Uttar Pradesh and Goa.*
- *MoU finalised with 28 States.*

## **2. ASHA**

- *Under the approved Framework for Implementation, ASHAs are proposed in NE states and hilly/tribal districts of all other states also.*
- *During 2005-06, 1.21 lakh ASHAs were selected and during 2006-07 (till date) 1.08 lakh ASHAs have been selected in various states.*
- *Till date 1.17 lakh ASHA have been trained in the states.*
- *Detailed guidelines for the mentoring of ASHAs in the states and the associated generic funding have been disseminated to the states*

## **3. Infrastructure**

- *Total amount: of Rs. 205.87 crore released during 2005-06 and Rs. 46.82 crores during 2006-07 as Untied funds for local action to all sub-centres in the country.*
- *Indian Public Health Standards have been finalized for CHCs. Similar standards are in final stages of preparation for Sub Centres, PHCs and District Hospitals.*
- *1680 CHCs have been identified by the states for upgradation to IPHS in the first phase. Total amount of Rs. 370 crores was released during 2005-06 and Rs. 326.40 during FY 2006-07 till date for this purpose.*
- *Facility Survey has been completed in 902 CHCs across the country.*
- *6355 Rogi Kalyan Samitis have been set up at various.*
- *The Mobility support being given for outreach programmes in the underserved areas.*
- *108 Integrated District Health Action Plans have been prepared in various states. These plans are sector wide in import and address all aspects of health including the collateral health determinants like nutrition, sanitation, drinking water etc.*

#### 4. Human Resource Development

- *Recommendation of the Task Group on Medical Education has been finalized and are in final stages of consideration by the Ministry.*
- *The Task Group on Identification, training and accreditation of RMPs in in the final stages of deliberations.*
- *Accounts personnel are being positioned in the PHCs to strengthen the accounting of funds in view of the substantially larger number of transactions at that level.*
- *12738 Doctors, ANMs and other paramedics have been appointed on contract by States to fill in critical gaps.*
- *Block pooling of doctors has been started in states so as to ensure that there is at least one functional health facility in each of the block. The other health facilities in the territorial are being serviced through outreach visits.*
- *700 professionals (CA/MBA) appointed for EAG States in the Program Management Units (PMU) to support NRHM. Similar management support is being planned at the level of the Block also.*

#### 5. Training

- *National Health Resource Centre at Central level finalized.*
- *State level Health System Resource Centre for North East States set up at Guwahati.*
- *Additional training initiatives undertaken including :*
  - *Upgradation of State Training Institutes/ANMS Colleges*
  - *Integrated Skill Development Training ANMS/ LHV/MOs.*
  - *Skilled Birth Attendants Training MO/ANMs*
  - *Training on Emergency Obstetrics care for MOs.*
  - *Training on No Scalpel Vasectomy (NSV) for MOs.*
  - *Professional Development Programme for CMOs.*
  - *Specialised skill development programme for MOs.*
  - *Training program for Consultants of Program Management Units*

## 6. New Programs & Innovations

- *RCH II launched and under implementation*
- *Expanded coverage under Janani Suraksha Yojana approved by the Mission Steering Group.*
- *Sterilization compensation scheme launched by GOI*
- *Integrated Management of Neonatal and Childhood Illnesses (IMNCI) started this year in 16 States namely MP, WB, Jharkhand, UP, Haryana, Maharashtra, Delhi, Mizoram, J&K, Uttaranchal, Bihar, A&N island, Assam, Andhra Pradesh, Chhattisgarh & Karnataka .*
- *With the help of Neonatology Forum completed training on Newborn Care in 140 districts in the country.*
- *Integrated Disease Surveillance Project operationalized.*
- *Legal changes brought about to allow the ANMs to dispense medication and MBBS doctors to administer anesthesia.*
- *Short course for anesthesia being planned.*
- *Risk Pooling and Health Insurance models compiled and shared with the states.*
- *Empowered Procurement Wing set up in the Ministry*
- *Single Purchase Committee set up under DGHS*
- *Involvement of HLL for supply of drugs to EAG/ North East States being finalized.*

## 7. Immunization

- *Accelerated Routine Immunization (RI) taken up in all EAG states*
- *Catch up rounds taken up in Bihar, Jharkhand, Orissa and Assam and other states.*
- *JE vaccination campaign covered 93.8 lakh children.*

## 8. Partnership with Non Government Stakeholders

- *225 Mother NGOs appointed for 331 districts in 2005-06.*
- *Providing services, RCH out reach services, Ambulance Services, Mobile Medical Units, Mentoring of ASHA, Management of Health facilities (as in Gujarat, Tamil Nadu etc) , Involvement of Medical colleges, Training programmes, ICCL, Partnership in polio/ immunization programmes etc.*

## 9. IEC

- *IEC Multi-media campaign on health issues including immunization, Iodized Salt, Save the Girl Child*
- *NRHM New letter*
- *Health Melas organized in different States.*
- *Information booklets disseminated.*
- *Behaviour change workshops being organized for key stakeholders including state IEC representatives.*

By the end of the Mission period i.e. 2007-2012 which coincides with the final year of the Eleventh Plan, the **expected outcomes** to be achieved in quantitative terms are:

- IMR to be reduced to 30/1000 live births by 2012.
- Maternal Mortality to be reduced to 100/100,000 live births by 2012.
- TFR to be reduced to 2.1 by 2012.
- Malaria Mortality Reduction Rate - 50% up to 2010, additional 10% by 2012.
- Kala Azar Mortality Reduction Rate - 100% by 2010 and sustaining elimination until 2012.

- Filaria/Microfilaria Reduction Rate - 70% by 2010, 80% by 2012 and elimination by 2015.
- Dengue Mortality Reduction Rate - 50% by 2010 and sustaining at that level until 2012.
- Cataract operations-increasing to 46 lakhs until 2012.
- Leprosy Prevalence Rate –reduce from 1.8 per 10,000 in 2005 to less than 1 per 10,000 thereafter.
- Tuberculosis DOTS series - maintain 85% cure rate through entire Mission Period and also sustain planned case detection rate.
- Upgrading all Community Health Centers to Indian Public Health Standards.
- Increase utilization of First Referral units from bed occupancy by referred cases of less than 20% to over 75%.
- Engaging 4,00,000 female Accredited Social Health Activists (ASHAs).

Besides the above, the Mission will mobilize the health workers, non government organizations and the community at large in facilitating access to health services, improved outreach services to the underserved areas, its effective utilization and ensuring proper accountability to the citizens. The emphasis will not be on health services per se but also on the major determinants of good health namely water supply, sanitation etc. The Mission will also steer towards promotion of inter-sectoral convergence and forging of a meaningful partnership by the centre with the states and local bodies.

### **TERM OF REFERENCE – III**

***(iii) To review the implementation of major health and family welfare programmes, functioning of infrastructure and manpower in rural and urban areas, and suggest measures for rationalizing/restructuring the infrastructure, strategies for improving efficiency and for the delivery of services with a special focus on women & children.***

The major programmes under Health are the National Disease Control Programmes that have been designed and are being implemented to arrest the spread of communicable and non-communicable diseases. The individual disease control programmes have been reviewed in detail by the Working Group on Communicable and Non-Communicable Diseases. The salient measures and strategies suggested by the Working Group in respect of the major programmes have been highlighted in this report under Term of Reference (vi) which relate specifically to Disease Control Programmes and Surveillance mechanisms.

Under Family Welfare, the major schemes relate to Reproductive and Child Health, Infrastructure Maintenance, IEC activities and Distribution of Contraceptives, Immunization, Area Projects and Research Institutions. These schemes have been suitably modified in 2005-06 and brought under the overall umbrella of the National Rural Health Mission.

The major constraints in the implementation of programmes and schemes particularly under Family Welfare have been in the realm of physical infrastructure, manpower and other support facilities for an effective healthcare delivery system. Infrastructure where available had not been fully operational due to critical gaps in availability of doctors, para-medics, drugs, diagnostic facilities etc. Non-availability of specialists was another critical factor. There has virtually been very little emergency obstetric care available and health programmes and schemes by and large operating as vertical programmes.

The NRHM launched in April, 2005 has drawn up a detailed implementation framework to ensure that infrastructure created is fully functional backed by adequate manpower and other resources.

In so far as Reproductive Child Health is concerned significant progress has been achieved under RCH. The first phase of the Reproductive Child Health Programme was launched in 1997 by integrating all ongoing fertility regulation and maternal and child health schemes of the Ministry under a single umbrella adopting a holistic target free approach. The first phase of RCH was assessed and taking note of the shortcomings, RCH Phase-II is under implementation since 2005. A review of the RCH Phase-I and the achievements made under RCH-II have been made in great detail in the Report of the Working Group on Health of Women and Children.

The sector level policies governing RCH-II design and implementation as contained in the Working Group Report on Health of Women and Children is given below:

#### **Sector level policies governing RCH-II design and implementation**

- Bring about inter-sectoral collaboration through networking at the highest levels and then percolating to the different levels.
- To include public health as a specialization into the medical education curriculum in order to bring out trained public health managers to manage the public health and bringing in public health as a function.
- To revitalize the human resources policy such as district cadres of MOs and block cadres of ANMs and also address the career movement, posting and training issues.
- Open up primary health care to groups of professionals/ individuals willing to take on such service provision functions especially at the primary levels accompanied by appropriate governance mechanisms.

- Activating voluntary level societies/ community level workers for bringing in additional funds into the sector (ZSS, RKS+JSK, ASHA)
- Address adolescent health as an important issue and develop packages for activating this aspect.
- Integrate with the ongoing National AIDS Control Programme (NACP) and establish linkages with HIV prevention programmes.
- Develop separate plans for dealing with the problems of vulnerable groups including a tribal action plan and an action plan for the urban poor.

A number of initiatives have been suggested by that Working Group for improving service delivery which include Public Private Partnerships and systemic approach for meeting the human resource challenges. While efforts to strengthen and optimize existing public facilities with more investment and better management should receive priority, collaborating with the private sector will still be required for meeting the growing demand and utilizing the expertise available with them. Some of the specific suggestions in respect of these have been extracted from the Working Group Report and highlighted in this section.

To expand the network of fully equipped facilities the following have been suggested:

- Ensure district hospital is fully equipped for the FRU services;
- Strengthen midwifery skills of existing ANMs through their attachment to district hospital; add more facilities for skill-development training after they are fully equipped for FRU services,
- Adopt multiskilling as the main strategy for strengthening service delivery, both for doctors as well as the paramedical staff.

**Given the crucial role nursing/paramedical manpower play in the delivery of healthcare services the Working Group has suggested:**

- A dedicated Nursing and Paramedical Manpower Division/Unit should be established at the National and State levels.
- All medical colleges should be mandated to establish a College of Nursing offering courses in B.Sc Nursing, M. Sc. Nursing and Post-Basic Diploma courses in speciality nursing areas.
- All District Hospitals should be mandated to establish a school of nursing offering ANM and Diploma in General Nursing and Midwifery.
- Smaller hospitals in public sector having at least 30 OBGs beds should be encouraged to start ANM training
- Private sector hospitals having at least 30 OBGs beds should also be allowed to start ANM training programme and the concerned State Government should allow selected public sector rural facilities for their field training.

**Other major recommendations made by the Working Group include:**

- Revision in the allocation of seats under PG Medical course to provide for more seats in the specialities required in rural areas.
- Treat external assistance with zero debt liability as an additionality to the domestic budget.
- Need to develop a robust MIS by triangulating data and information from routine reporting systems, external programme evaluations and community based assessment of programme implementation.

## **Term of Reference – IV**

- (iv) *To review the challenges of the immediate future such as aging population increased disease burden on account of new infections and non-communicable diseases that have the potential to impoverish the poor.*

### **Care of the Elderly: Proposed Geriatric Programme**

According to the 2001 Census, there are 76.6 million people at or over the age of sixty in India, constituting about 7.7% of the total population. Life expectancy has increased from around 59 years in the 1970s to 63 years currently, and is expected to cross 70 years by the year 2020. The proportion of elderly in India is set to rise dramatically in the next few decades.

One major area of concern in the above context, is the Health of the elderly, which requires a comprehensive care of providing preventive, curative & rehabilitative services. Unlike the developed countries, India does not have a well-structured Geriatric Health service, thus leading to a relatively *ad hoc* system of health care delivery for the elderly. In this scenario, there is a need for a specialized geriatric health service, which recognizes the elderly as being a vulnerable population. The service must educate, to develop and maintain lifestyles, which are healthy. It must provide a counseling and medical care facility to look after the needs of the sick elderly, and an emergency facility to reach those in acute need and transport them to a hospital. This should include acute care, long term care & community based rehabilitation

In the long run, the aim of the program is to provide quality services closest to the homes of the elderly; to keep them functional and to make them return to the community as early as possible after illness. Hence easy accessibility, continuity and good quality of care are essential components of a Geriatric Health Care System.

To improve the access to promotive, preventive, curative and emergency health care among elderly persons a range of services to be provided has been envisaged at three levels under the proposed geriatric programme

**Level One:** *A Home Health service, which will comprise of a visiting component intended as an early warning system to detect health problems, and as a source of psychological support.*

**Level Two:** *A community based health centre for the elderly providing a base for educational and preventive activity and an out patient medical service. This would be the base for the home health service, and for the program in general.*

**Level Three:** *An improved hospital-based support service with focused health care needs at the institute.*

The Working Group on Communicable and Non-Communicable Diseases has looked at the care of the elderly and proposed a roadmap for the 11<sup>th</sup> Five Year Plan. The Report has recommended the setting up of two national institutes of ageing one in Delhi and one in Chennai supported by regional centres to be spread across 19 States in the first instance.

The national program for health care of the elderly will be a centrally funded program. The eight regional centres will be identified under the control of these two institutes. On an average, each regional centre will be involved in implementing Geriatric Health Care in about 3 to 4 states. These will be at Trivandrum, Bangalore, Hyderabad, Vellore, Kolkata, Mumbai, Jodhpur and Guwahati. The existing geriatric services will be up graded in these Regional centres.

In each state one teaching medical College / Tertiary level hospital will be selected to develop the Geriatric Unit which will include the Outpatient services, Acute care , subacute Care and Long Term Care units. In total 35 such centres will be supported in this programme.

These identified Medical Colleges will be further linked to 5 districts each in their vicinity. In total 175 District Hospitals will be strengthened for providing geriatric care. The Medical colleges will also be responsible for the geriatric care services in the identified urban centres in the adjacent areas.

The health professionals will be trained at the Medical colleges and regional centres to fill in the gap in manpower. They will then be sent to the district level centres for delivery of Geriatric Health Care. The manner in which these institutes in the Centre and States will function has also been spelt out in that Report.

The public health system is already stretched by the co-existence of communicable and infectious diseases and alongside an emerging epidemic of non-communicable diseases. While the national programmes to control communicable diseases are meeting with success, emergence of new infections and non-communicable diseases particularly diabetes, life-style diseases and CVDs need to be effectively prevented as curative care costs for these diseases are very high. Preventive strategies will vary according to causal factors. The plan of action proposed for controlling communicable diseases and measures for non-communicable diseases has been dealt with comprehensively in the Report of the Working Group on Communicable and Non-Communicable Diseases. The Report also includes a section on operational research that is required in the areas of communicable and non-communicable diseases in the future.

## **TERM OF REFERENCE – V**

- (v) *To review the mechanism for screening and referral of patients, so that they receive appropriate care at all levels.***

The principal challenge in the health sector today is the building of a sustainable healthcare delivery system whereby all citizens including the rural poor and the disadvantaged sections of the society would have access to affordable and appropriate quality healthcare at all levels. In the existing system fragmented strategies and lack of manpower and other resources have made the health system unaccountable and inadequately equipped to meet the health requirements particularly in the rural areas where there is massive public health infrastructure. This physical infrastructure however is not always supported by availability of doctors/para-medics, drugs, equipments, diagnostic services etc. Lack of facilities particularly for emergency obstetric care and non-availability of specialists for anesthesia, obstetric care, pediatric care etc. have either resulted in the needy move towards the private sector or not access healthcare at all. Also the system was not suitably integrated resulting in limiting the outcomes of health through implementation of different programmes and schemes.

The National Rural Health Mission has as its basic objective effecting an architectural correction to the existing healthcare delivery system and has drawn up a plan of action at all levels of healthcare i.e. village, sub-centre, PHC, CHC, district and state. The plan visualized to operationalize this objective is enumerated in the paragraphs that follow.

## Village level

- The Mission provides for a trained female community health worker – ASHA- in each village in EAG states who is expected to work very closely within the villages and could contribute directly in a number of health related activities. ASHAs would reinforce community action for universal immunization, safe delivery, newborn care, prevention of water-borne and other communicable diseases, nutrition and sanitation, in close coordination with ANMs/AWWs. This network of female link workers would act as the nucleus for coalescing all forces to empower women in the villages.
- There would be a Health Day every month at the Anganwadi level in which immunization, ante / post natal check ups and services related to mother and child health care including nutrition would be provided.
- One health Unit to be established in every village which would be owned by the community and managed by the Village Health and Sanitation Committee, with the help of ASHA/AWW/SHG group, etc.
- At each Anganwadi there would be a room to serve as focal point for health activities in the village.
- Provision of a revolving fund at the village level to be managed by VHSC for providing referral and transport facilities for emergency deliveries as well as immediate financial needs for hospitalization.
- Identify RMPs and upgrade their skills by specialized training to deliver health care.

- For those villages which are far away from the Sub-Centre, identification of a TBA with requisite educational qualifications for training and upgradation to the level of Skilled Birth Attendant to assist the ANM at the Sub Centre. They are to be paid Rs. 50/- per institutional delivery assisted by them at the Sub Centre.
- Orientation of the members of the VHSC to equip them to provide leadership as well as plan and monitor the health activities at the village level.
- Unutilized fund to be made available to VHSC for various health activities including IEC, household survey, preparation of health register, organization of meetings at the village level etc.

### **Sub-Centre level**

- The Sub-Centres are currently provided on the population norm of 1 per 5000 population in general areas and 1 per 3000 population in tribal areas. Even by 1991 population norms, against a requirement of 1.34,108, if we ignore the excess sub-centres in some of the states, there is a shortfall of 4822 sub-centres. Going by the population of 2001, the requirement climbs to 1,58,702 and the deficit increases to 21, 983. Of the existing sub-centres, only 63,800 are in government buildings. If we further exclude those buildings which are currently functioning from Panchayat and other voluntary society buildings, buildings need to be constructed for as many as 59,226 of them. The vacancy position at the Sub-Centres is equally discouraging. Against a requirement of one ANM (funded by the GOI) and one MPW (funded by the states) positions of as many as 11,191 and 67,261 respectively are vacant.
- The number of ANMs is proposed to be linked to the caseload and the distance of village / habitations which comprise the sub-centre and not to the population as population density is not uniform resulting in inadequate availability of health services.

- Two ANMs are to be provided for each sub-centre. These ANMs besides fulfilling the laid down criteria will also be a resident of a village falling under the jurisdiction of that sub-centre and not be transferred before completion of 10 years.
- Construction of sub-centres would be taken up in a phased manner over the mission period.
- To bring in greater community control, the sub-centres would be fully brought under the Panchayati Raj framework.
- Besides the usual recurring cost support to the sub-centres, they also would be given an untied support of Rs. 10,000. The fund would be kept in a joint account to be operated by the ANM and the local Surpunch.
- The Sub-Centre building could also be utilized for dispensing OP services by any health provider. Adequate provision of medicines would be made, not only pertaining to RCH but also of other communicable diseases. The availability of AYUSH drugs would also be ensured.
- Two TBAs would be attached to every Sub-Centre without any financial liability. These TBAs would be selected with a view to train them subsequently to the level of SBA by further skill upgradation. They would be paid Rs. 50/- on a case to case basis for an institutional delivery at the Health Sub Centre.

### PHC Level

- The PHCs are currently provided on the population norm of 1 per 30,000 population in general areas and 1 per 20,000 population in tribal / desert areas. Even by 1991 population norms, against a requirement of 22,349, if we ignore

the excess in some of the states, there is a shortfall of 1374 PHCs. Going by the population of 2001, the requirement goes up to 26022 and the deficit increases to 4436. Of these PHCs, as many as 1693 do not have their own buildings. The PHCs are expected to have two doctors. However, even if we work out the requirements on the basis of one doctor alone, there are 880 vacancies which clearly imply that many of the PHCs are without doctors.

- The availability of the three staff nurses within the PHC premises would address the health needs of the rural population in a very significant manner. The Government of India would bear the entire capital expenditure for construction/ repair/ innovation/ redesign of the buildings in a phased manner over the mission period, excluding those already taken up under the RCH-II.
- In respect of new PHCs Centre would assist the States with the recurring expenditure on 75:25 basis during the Eleventh Plan and on 50:50 basis during the Twelfth Plan.
- Rogi Kalyan Samiti would be constituted at the PHC level. To encourage the states to do so, a grant of Rs. 1,00,000 is planned to be provided to the states for each PHC for which a RKS has been constituted and where the RKS has been authorized to retain the user fee at the institutional level for its day to day needs.
- The existing staff of disease control programmes would be integrated at the PHC level and the RKS would be encouraged to rationalize the manpower and equipments available under the vertical programmes for greater synergy.
- One AYUSH doctor would be posted at the PHC level. AYUSH drugs would also be made available in adequate quantity.

- The PHC would be managed by the RKS. The entire Budget allocated for the PHC would be provided to the Samiti, which has PRI/Community participation. The Samiti should own the institution.

### **CHC level**

- The CHCs are currently provided on the population norm of 1 per 1,20,000 population in general areas and 1 per 80,000 population in tribal / desert areas. Even by 1991 population norms, against a requirement of 5587, if we ignore the excess in some of the states, there is a shortfall of 2474 CHCs. Going by the population of 2001, the requirement goes up to 6491 and the deficit increases to 3332. Of these CHCs, as many as 318 do not have their own buildings.
- In some places, there are multiple health facilities being controlled by different agencies. As a result, because of the manpower and equipment shortage, none of the facilities function in an optimal manner. The States would be asked to merge these facilities existing at the CHC headquarter for better cohesion.
- The location of the CHCs and the norms would be reexamined by the States while preparing the District / State Plan.
- The Centre would support the entire capital expenditure for the construction of the new CHCs and the renovation of the existing CHC buildings ( except those taken up under RCH-II).
- The CHC should be managed by the PRI at the district level through RKS.

- IPHS have been set up for the CHC level. IPHS is a novel concept to fix benchmarks of infrastructure including building, manpower, equipments, drugs, quality assurance through introduction of treatment protocols. All CHCs to be upgraded to the IPHS in a phased manner over the Mission period. The Govt. of India would bear the additional expenditure to be incurred by the states on account of the IPHS fully during the Eleventh Plan and in the ratio of 50:50 during the Twelfth Plan.
- A support of Rs one lakh per CHC to be given to the Hospital Management Society through states where those are authorized to retain the user charges at the institution level. Five lakh for similar arrangement at the District Hospital.
- Accountability to public to be enforced through a prominently displayed Citizens Charter (indicating the range of services and the rights of citizens) to be monitored through Hospital Management Society.
- Each district would be supported with one mobile medical unit which would be attached to the district hospital / CHC. The states would be encouraged to devise their own PPP mechanism for running the vehicle. The states would be given flexibility to adopt the model they consider appropriate.
- AYUSH units to be set up in every CHC.

## **TERM OF REFERENCE – VI**

- (vi) ***To review disease control programmes and disease surveillance mechanism in the country, its capability to provide up-to-date information for effective timely response to prevent/limit disease out breaks and to provide effective relief measures.***

The Working Group on Communicable and Non-Communicable Diseases in their Report have examined in detail and reviewed the progress achieved in respect of different Disease Control Programmes and the Disease Surveillance mechanisms and suggested the action plan for the Eleventh Plan. In view of this, in the present report the salient findings emerging from the detailed review undertaken by the above mentioned Working Group in respect of some of the major disease control programmes have been highlighted.

### **ISSUES OF PUBLIC POLICY:**

The Working Group on Communicable and Non-Communicable Diseases is of the view that there are two factors of critical importance to public policy which need to be addressed:

- (a) For almost all diseases conditions identified and most particularly the National Health Programmes in which government investment was substantial i.e. Malaria and other Vector Borne Diseases, T.B., Leprosy, Reproductive Health and Childhood conditions, there is a paucity of high quality epidemiological information and validated data. In the absence of operational research there was also weak evidence regarding the type of interventions that would be most effective in the different settings of the country and
- (b) A literature review has thrown up evidence of a large number of diseases which are considered to be life style related and affecting the rich to be seen to be affecting the poor as well and increasingly so.

## **1. NATIONAL VECTOR BORNE DISEASE CONTROL PROGRAMME**

During the XI Plan period, the existing strategies for prevention & control of vector borne diseases would be continued and further strengthened with special emphasis on surveillance, human resource development, behaviour change communication, supervision and monitoring, quality assurance and quality control of diagnostics, drugs and operational research. The Programme aims to maintain Annual Blood Smear Examination Rate of over 10% and bring down the Annual Parasite Incidence to 1.3 or less so as to accomplish 25 per cent reduction in malaria mortality by 2010 and 50 per cent by 2012.

Towards elimination of Lymphatic Filariasis, eligible population living in endemic districts will be covered under Mass Drug Administration with single recommended dose of DEC or DEC + Albendazole. For the patients, home based morbidity management and hydrocele operations will be augmented. Towards Kala-azar elimination, the annual incidence will be reduced to less than 1 per 10,000 population at the sub-district level by 2010. Control of Dengue and JE is targeted at reduction of case fatality and frequency of outbreaks. To deal with 50% shortage of MPW (M), it is proposed to fill up 25% of the vacant posts through contractual schemes by Government of India, while the states will be impressed to meet the funds requirement for remaining 25% posts.

## **2. NATIONAL LEPROSY ERADICATION PROGRAMME**

During the XI Plan, the programme will aim at further reducing the leprosy burden in the country while providing high quality leprosy services for all persons affected by leprosy to General Health Care System. Enhanced emphasis will be laid on Disability Prevention & Medical Rehabilitation (DPMR) services for leprosy affected persons. Further advocacy efforts will be continued in order to reduce stigma and stop discrimination against leprosy affected persons and their families. The programme will continue to receive free supply of MDT from

NOVARTIS through the WHO till 2010. Partners in leprosy programme implementation like the WHO and International Federation of Anti-Leprosy Association (ILEP) will continue to provide additional technical and monitoring support to the programme.

### **3. REVISED NATIONAL TUBERCULOSIS CONTROL PROGRAMME**

Based on the earlier programme experience, the Project Implementation plan of Phase II of RNTCP intends to strengthen the ongoing TB control activities and support new initiatives viz. management of MDR TB using DOTS Plus, strengthening State level laboratory network to undertake culture and sensitivity testing, pediatric patient wise drug boxes, etc, During the period nearly 30 million TB suspects would be examined, and would help in diagnosing and initiating over 6 million TB patients on treatment, of which nearly 3 million would be infectious sputum positive patients and successfully treat over 85% of new sputum positive registered patients.

### **4. NATIONAL AIDS CONTROL PROGRAMME**

The NACP-III during XI plan period of 2007-2012 has set the goal to halt and reverse the epidemic in India over the next 5 years by integrating programmes for prevention, care, support and treatment. This will be achieved through four strategic objectives namely:

1. Prevention of new infections in high risk groups and general population through:
  - a. Saturation of coverage of high risk groups with targeted interventions (TIs)
  - b. Scaled up interventions in the general population.
2. Increasing the proportion of people living with HIV/AIDS who receive care, support and treatment.

3. Strengthening the infrastructure, system and human resource in prevention, care support and treatment programmes at the district, state and national levels.
4. Strengthening a nation-wide strategic information management system.

The specific objective is to reduce new infections as estimated in year 1 of the programme by:

- Sixty percent (60%) in high prevalence states so as to obtain the reversal of the epidemic; and
- Forty percent (40%) in the vulnerable states so as to stabilize the epidemics.

Based on the lessons learnt from the previous two phases, the NACP-III will be strengthened during the XI plan period. The priorities and thrust areas will include prevention; care, support and treatment; capacity strengthening; and strategic information management.

### **Non-Communicable Diseases**

Unlike the communicable diseases the NCDs are linked to a cluster of major risk factors such as tobacco use, unhealthy diet, physical inactivity, obesity, high blood pressure, cholesterol and glucose levels that are measurable and largely modifiable. Presently, there are national programmes for Cancer, Blindness, Mental Health and Iodine Deficiency Disorders. Reviewing these programmes and analyzing the kind of ailments/diseases which are emerging, the salient recommendations made by the Working Group in their report on communicable and non-communicable diseases are given below.

## National Cancer Control Programme

The National Task Force that had been set up under the programme has made a series of recommendations for cancer control during the XIth Plan. The strategies proposed include prevention and early detection of cancer through District Cancer Control activities, strengthening IEC, promoting centres of excellence in the field of cancer management, augmenting cancer care facilities across the country, development of early diagnostic capabilities and increasing capacity for palliative care in cancer etc. This is to be achieved through encouraging Public Private Partnership, health advocacy, capacity building and promoting research.

## National Programme for Control of Blindness

Prevalence and cause of blindness have undergone a distinctive change since launching of the National Programme for Control of Blindness as shown below:

Year	Prevalance	Remarks
1971-74	1.38%	Cataract leading cause (75%)
1986-89	1.49%	Cataract Blindness increased to 80%, Trachoma and Vitamin A related blindness reduced
2001-04	1.10%	Cataract reduced to 63%, Refractive Error second leading cause (20%), Glaucoma and Diabetic Retinopathy emerging causes
2007	0.8%	Goal for 10 <sup>th</sup> plan
2010	0.5%	Goal indicated in National Health Policy
2020	0.3%	Goal under "Vision 2020 initiative"

The main causes of blindness in this population are as follows: -

A	Cataract	62.6%
B	Refractive Error	19.70%
C	Corneal Blindness	0.90%
D	Glaucoma	5.80%
E	Surgical Complication	1.20%
F	Posterior Capsular Opacification	0.90%
G	Posterior Segment Disorder	4.70%
H	Others	4.19%

There are no nation-wide reliable data on refractive error and low-vision among children in the country except some isolated studies. Among the emerging causes of blindness, diabetic retinopathy and glaucoma need special mention. 2% of India's population is expected to be diabetic. 20% of diabetics have diabetic retinopathy and this number is likely to grow in future. Prevalence of blindness due to glaucoma is estimated to be 4% in population aged 50 years and above.

To intensify and accelerate the present prevention of blindness activities, so as to achieve the goal of eliminating avoidable blindness by the year 2020.

**The major focus areas for the XIth Plan are:**

- ✓ Refractive Error
- ✓ Low Vision
- ✓ Childhood Blindness including Vitamin A deficiency.
- ✓ Corneal Blindness including Trachoma.
- ✓ Emerging Causes, Glaucoma, Diabetic Retinopathy.

The Working Group has recommended setting up a Eye Care Management Information and Communications Network Project to support access to quality and affordable eye care services for prevention of blindness and sight restoration to the underserved population. The national network will comprise the District Blindness Control Societies, private hospitals, regional institutes of ophthalmology and centres of excellence. The latter centres would provide speciality services under one roof with highly trained and motivated professionals. The new initiatives proposed includes construction of dedicated eye wards and operation theatres in district hospitals in the North-eastern States, Bihar, Jharkhand, Jammu & Kashmir, Himachal Pradesh, Uttaranchal and other States on demand. Telemedicine in ophthalmology is also to be promoted.

## **National Mental Health Programme**

Based on the review of the existing programme, a revised programme is proposed to be taken up with the objectives to empower the doctors in the primary care facilities to be able to offer care to patients at PHCs, improve public awareness and facilitate community participation, upgrade psychiatry departments of medical colleges and improve mental hospitals that offer tertiary care.

## **National Iodine Deficiency Disorders Programme**

It is proposed to bring down prevalence of IDD below 10% in the entire country by 2012 AD and ensure 100% consumption of adequately iodated salt (15 PPM) at the household level through IDD surveys through State Govts./NGOs establish IDD Control Cells, and IDD monitoring labs, quality control of iodated salt at the consumer level, training programme, production and distribution of iodated salt, health education and publicity and pilot programme for the control of micronutrient deficiencies.

### **New Initiatives:**

National programmes are likely to be taken up for prevention and control of diabetes, cardiovascular diseases and a programme for the healthcare of the elderly.

## **INTEGRATED DISEASE SURVEILLANCE PROJECT**

State level workshops in Tamil Nadu, Maharashtra and Uttar Pradesh were held which brought out the following issues on the current disease surveillance activities:-

## Primary level

Active or passive data collection is going on for more than 60-90 different conditions in some of the states. The peripheral data collection system is overburdened with a substantial percentage of the time of the ANM spent on surveillance related activities. Quality of reporting is hampered by absence of clear case definitions. Data transmission is affected by poor communication facilities available. Absence of formats for reporting diseases adversely affect quality of the data collect. There is no horizontal integration of surveillance activities of existing disease control programs. Data is not collected from private practitioners, private laboratories and private hospitals both in rural and urban setting as well as medical colleges. Infrastructure for urban surveillance is very weak in view of the rapid growth in urban populations.

There is no system of feedback to the lower levels of the health system. Data collection during emergencies and epidemics is of better quality. There is no system of quality control for the data collected and there is very little analysis and action based on the data. District level Quality of data collected is poor. Analysis of data is inadequate for meaningful interpretation. The laid down protocols were not being followed and needed to be activated. District level response system is activated only in times of outbreak. Non-Communicable Diseases are not included in surveillance even though the burden due to them is high. The information is not shared across disease control Programmes. There is lack of coordination between departments. District administrative system is not able to make use of the health data. State level There is need to improve the quality of data in terms of reliability and validity. There is problem of timeliness as data is transmitted to state head quarters irregularly and often late. Most of the data received at the state level is not analyzed. Data is not used for routine Programme planning. There is need to improve human resources.

The IDSP taken up as a plan scheme and launched in November, 2004 for improving disease surveillance and response through an integrated approach with rational use of resources for disease control and prevention. Data collected under IDSP would also provide a rational basis for decision making and implementing public health interventions.

Specific objectives of the IDSP are:

- To establish a decentralized district-based system of surveillance for communicable and non-communicable diseases so that timely and effective public health actions can be initiated in response to health challenges in the urban and rural areas
- To integrate existing surveillance activities (to the extent possible without having a negative impact on their activities) so as to avoid duplication and facilitate sharing of information across all disease control programmes and other stake holders, so that valid data are available for decision making at district, state and national levels.

**Features of Integrated Disease Surveillance are as follows:**

- The district level is the focus for integrating surveillance functions.
- All surveillance activities are coordinated and streamlined. Rather than using scarce resources to maintain vertical activities, resources are combined to collect information from a single focal point at each level.
- Several activities are combined into one integral activity to take advantage of similar surveillance functions, skills, resources and target populations.
- The IDSP integrates both public and private sector by involving the private practitioners, private hospitals, private labs, NGOs, etc and by active community participation.

- The IDSP integrates communicable and non-communicable diseases. Common to both of them are their purpose in describing the health problem, monitoring trends, estimating the health burden and evaluating programmes for prevention and control.
- Integration of both rural and urban health systems as rapid urbanization has resulted in the health services not keeping pace with the growing needs of the urban populace.
- The gaps in receiving health information from the urban areas needs to be bridged urgently.
- Integration with the medical colleges (both private and public) would also qualitatively improve the disease surveillance especially through better coverage.

## **DISEASES UNDER SURVEILLANCE**

### **Core Diseases**

#### *Regular Surveillance:*

Vector Borne Disease

Water Borne Disease

Respiratory Diseases

Vaccine Preventable Diseases

Diseases under eradication

#### *Other Conditions*

: 1. Malaria

: 2. Acute Diarrhoeal Disease (Cholera)

: 3. Typhoid

: 4. Tuberculosis

: 5. Measles

: 6. Polio

: 7. Road Traffic Accidents

#### *Other International commitments :*

8. Plague, Yellow fever

*Unusual clinical syndromes :*

9. Meningoencephalitis/Respiratory Distress

(Causing death / hospitalization) Hemorrhagic fevers, other undiagnosed conditions

*Sentinel Surveillance:*

Sexually transmitted diseases/

Blood borne :

10. HIV/HBV, HCV

Other Conditions :

11. Water Quality

12. Outdoor Air Quality (Large Urban centers)

*Regular periodic surveys:*

NCD Risk Factors :

13. Anthropometry, Physical Activity, Blood

Pressure, Tobacco, Diet etc.

*State specific diseases:*

Each State can include up to 5 diseases prevalent in the State.

## **PROJECT PHASING**

The Project would cover the entire country in a phased manner as depicted below:

**Phase I** (commencing from FY 2004-05) Andhra Pradesh, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Uttaranchal, Tamil Nadu, Mizoram & Kerala.

**Phase II** (commencing from FY 2005-06) Chhatisgarh, Goa, Gujarat, Haryana, Rajasthan, West Bengal, Manipur, Meghalaya, Orissa, Tripura, Chandigarh, Pondicherry, Delhi & Nagaland

**Phase III** (commencing from FY 2006-07) Uttar Pradesh, Bihar, Jammu & Kashmir, Jharkhand, Punjab, Arunachal Pradesh, Assam, Sikkim, A & N Nicobar, D & N Haveli, Daman & Diu, & Lakshdweep

### **Development of Software for Disease Surveillance**

A software will be developed for data entry, compilation, analysis and GIS to facilitate Disease Surveillance. Nation-wide web connectivity would be provided under the project. A typical District Surveillance Network is depicted below :

#### **CENTRAL LEVEL**

A National Disease Surveillance Committee has been set up at the national level to arrive at

- Major policy decisions in implementing IDSP
- Review Physical and Financial progress in implementing IDSP
- Coordination with all relevant Ministries, Departments and Organizations.

The Central Surveillance Unit (IDSP) will be supported by Surveillance Committees at the State and district levels.

## **TERM OF REFERENCE – VIII**

- (viii) To suggest modification in policies, priorities and programmes during 11<sup>th</sup> Plan period in relation to:*
- (a) Priority areas of research to investigate alternative strategies;*
  - (b) Mid-course correction of ongoing activities;*
  - (c) New initiatives;*
  - (d) Strategies to improve quality and coverage of services at affordable cost, to cope with existing, reemerging and new challenges in communicable diseases, emerging problems of non-communicable diseases due to increasing longevity, life style changes and environmental degradation;*
  - (e) Provide all these services through NRHM and secondary health care system in an integrated fashion;*
  - (f) Improve disease surveillance, HMIS, effective timely response.*

The health scenario in India is at the cross roads at the present juncture. Changing epidemiological profile requires changes in the demand for health service and health promotion measures. The emphasis on changing Disease control priorities have been highlighted in the earlier sections and analyzed in-depth by the Working Group on Communicable and Non-Communicable Diseases. The healthcare delivery system will need to gear up to address the demographic transition, the epidemiological transition, changing risk environment and the consequential widening in the gap between health problems and needs on the one hand and provision of healthcare services on the other.

The demographic transition itself is likely to witness a decline in mortality and fertility rate with the improvements being effected in healthcare prevention and cure and general levels of economic betterment. Alongside the country will also be witnessing an increasingly ageing population. The age pyramid that has been projected indicates that during the period 1996-2016, the following changes are likely to occur:

- Population in the age group less than 15 years is likely to decline from 353 to 350 million

- Population in the age group 15-59 years is likely to increase from 590 to 800 million
- Population in the age group greater than 60 years is projected to increase from 62.3 to 112.9 million.

The increase in the ageing population will bring along with it many chronic diseases like cancer, diabetes, CVDs etc. which will tend to be high in the older age groups. These would require to be addressed through an integrated healthcare plan. The manner in which this is proposed to be done has been outlined under the Term of Reference (iv) discussed earlier.

In the epidemiological transition, communicable diseases particularly AIDS and other life style diseases will require to be addressed. In so far as communicable and non-communicable diseases are concerned, the emphasis will be on operational research for collating impact of interventions already undertaken so that the targeted measures to be taken will be more cost effective and outcome based. Health advocacy and health education promotion would be given renewed emphasis given the present scenario of life style related diseases and the future inroads this is to make in the healthcare delivery system. Risk factors like tobacco abuse have already been addressed and become entrenched in the policy structures with legislative support. Adequate safeguards would need to be taken through promoting exercise, yoga and healthy diets particularly in the younger population as preventive steps for tackling life-style diseases.

The demand for health services in the future is likely to be phenomenal with increases in the health seeking behaviour resulting from better levels of education, income status and urbanization. The National Rural Health Mission in a way addresses issues relating to most of these aspects of healthcare. The priorities are and will continue to be maternal and child health, life style related diseases and healthcare for the aged. Accidents and trauma care will also be another important priority that would be addressed. The Health Policy is veering

towards an integrated healthcare delivery system whereby treatment of a patient is not limited by any disease or ailment but his treatment is visualized in a holistic manner. This is being attempted through the mission approach with the integration of the disease control programmes with the general healthcare system. Community led action with close involvement of Panchayati Raj Institutions and local bodies and setting up of Rogi Kalyan Samitis are likely to enhance accountability and shift the focus of healthcare efforts around the individual. Pooling of resources particularly medical and para-medical support, managerial assistance at the State and the district levels for proper accountability of funds released and a shift from merely curative to preventive and promotive healthcare as being envisaged in the Rural Health Mission are likely to make an impact on the health status profile of the population. Integrating the major healthcare schemes and programmes under a common umbrella is also likely to maximize health outcomes with optimal utilization of resources. Health and Family Welfare programmes by forming an integrated component is likely to pool in medical manpower in most of the rural areas.

The inter-sectoral convergence already initiated under NRHM will need to be strengthened in the future.

In so far as women and children are concerned, the areas of convergence would need to lie in nutrition and women's empowerment. Under the NRHM, the anganwadi is already identified as the hub of action with a health and nutrition day being observed on a monthly basis. Support to the ANM and AWW would be through the untied fund.

On the education front the areas of convergence would be in school health education for promoting primary healthcare and adolescent health. The school health programmes have already been integrated in programmes like Blindness Control and RCH-II and will be given a further boost in the future.

Safe drinking water and sanitation are areas that have been taken up under the NRHM for effective convergence. The Village Health Sanitation Committee will cover all activities relating to drinking water, sanitation etc. ASHA will be associated with the water quality monitoring and surveillance programme and total sanitation campaign. The Panchayati Raj Institutions will be fully involved in this convergent approach so that the gains of integrated action can be reflected in the district health plans. The NRHM would seek to empower PRIs at each level i.e. Gram Panchayat, Panchayat Samiti at Block level and Zila Parishad at District level to assume leadership to control and manage the public infrastructure structure at district and sub district levels. Under the NRHM, it is proposed to build an accountability framework through a process of community based monitoring, external surveys and stringent internal monitoring.

Capacity building of available medical and para medical manpower is also visualized. Besides, training and putting in place 4 lakh ASHA/Community health workers, the Mission will also provide 2 ANMs at each sub-health centre and 3 staff nurses to ensure provision of services round the clock in every PHC. The CHCs are also to be brought at par with Indian Public Health standards to provide round the clock hospital like services. This is to be achieved through 7 specialists as against 4 at present and 9 staff nurses as against 7 at present in every CHC. A separate AYUSH set up would also be provided for in each PHC and CHC. Incentives will also be provided to ensure that doctors do continue to serve in the rural areas by residing in those areas and not by commuting from the nearby towns or headquarters. Medical nursing education will also be revamped to cater to the growing needs of healthcare.

New initiatives in the nature of National Programmes for Diabetes, Deafness and CVDs will be taken up in the 11<sup>th</sup> Five Year Plan. Besides National Institute for the Aged supported by the regional centres is also proposed.

## **TERM OF REFERENCE – IX**

- (ix) To indicate manpower requirement and financial outlays required for implementation of these programmes during the 11<sup>th</sup> Plan period;**

As per the 2001 Census, 741.7 million of India's population resides in rural areas spread over 638,588 villages and more than 10 lakh hamlets and habitations. The challenge of health care in rural areas is to be able to reach out to these widely disbursed and remote habitations in a meaningful way. The approach so far has been to provide a Sub-Health Centre for a population of 5000, a Primary Health Centre for a population of 30000 and a Community Health Centre for a population of one lakh with marginal alterations for hilly and desert areas.

### ***The human resource challenge***

The biggest challenge of the public health system is to provide adequate resources along with essential reforms to make it deliver better, with community ownership and accountability. The fundamental issue is to resolve the crisis of the public health system in terms of availability of health and para medical staff in rural areas. New and innovative ways of management of human resources (Clusterized posting at Block/CHC level, incentives, career progression, specialist training, multi skilling, etc.) would have to be evolved in state specific contexts to ensure availability of personnel in remote regions. Priority will also have to be accorded to filling up of vacancies of ANMs, Nurses, Para Medical Staff, Block Medical Officers, key Specialists, etc. It is important to have local residence criteria for remote regions as often outsiders, even if recruited, are found to be absent or seeking a transfer out of such regions. Systems of engaging local women and providing them sustained support to develop as ANMs and Nurses could also be considered.

An analysis of availability of ANMs across States show that in States like Tamil Nadu and Kerala, an individual ANM caters to much fewer villages and population wherein in States like Chhatisgarh, Madhya Pradesh and Uttar Pradesh, the number of villages and population are much larger. To a considerable extent this affects her quality of delivery and maybe it would be desirable to move towards a norm that combines work load, distance, population and community convenience. The high levels of absenteeism among health workers and doctors in rural areas is another factor that needs to be borne in mind. This calls for an approach that improves the accountability framework and also allows development of local residents as health workers.

#### ***Public Health System in rural areas***

- There are 1,46,026 Sub Health Centres, 23,236 Primary Health Centres, and 3346 Community Health Centres.
- As per 2001 population norm, another 19,269 Sub Health Centres, 4337 Primary Health Centres, and 3206 Community Health Centres should be established to fulfill population norms for SHC/PHC/CHC.

#### ***State of infrastructure***

- 60,762 existing SHCs, 2948 PHCs and 205 CHCs need buildings. Those that have buildings do not get adequate resources for asset management, maintenance, etc. remaining in a descript shape.
- Community/User groups not involved in construction/maintenance of facilities. Funds are centrally managed in most states.
- Toilets, electricity, drinking water, equipment, medicines, not adequately available in many institutions.

**State of staff - I**

<b>Staff</b>	<b>Required</b>	<b>In Position</b>
ANM	1,69,262	1,33,194
MPW (M)	1,46,026	61,907
HA (F)LHV	23,236	17,371
HA(M)	23,236	20,181

**State of Staff - II**

<b>Staff</b>	<b>Required</b>	<b>In Position</b>
Doctors at PHC	23,236	20,308
Surgeons at CHC	3346	1201
Gynaecologists at CHC	3346	1215
Paediatricians	3346	678

**State of staff - III**

<b>Staff</b>	<b>Required</b>	<b>In Position</b>
Radiographer at CHC	3346	1337
Pharmacist at CHC & PHCs	26,582	17,708
Lab Technicians at CHC & PHCs	26,582	12,284
Nurse Mid Wives at CHC & PHCs	46,658	28,930

Source: Bulletin on Rural Health Statistics in India, 2006

Ministry of Health & Family Welfare

### ***Areas of Concern***

- 9869 PHCs are single doctor PHCs.
- 5769 Sub Health Centres are without ANMs.
- Repair and maintenance grants to institutions are centralized, untimely and inadequate, leading to dilapidated structures.
- Contingencies are inadequate leading to lack of cleanliness and quality of services.
- Very high rate of absenteeism of staff.

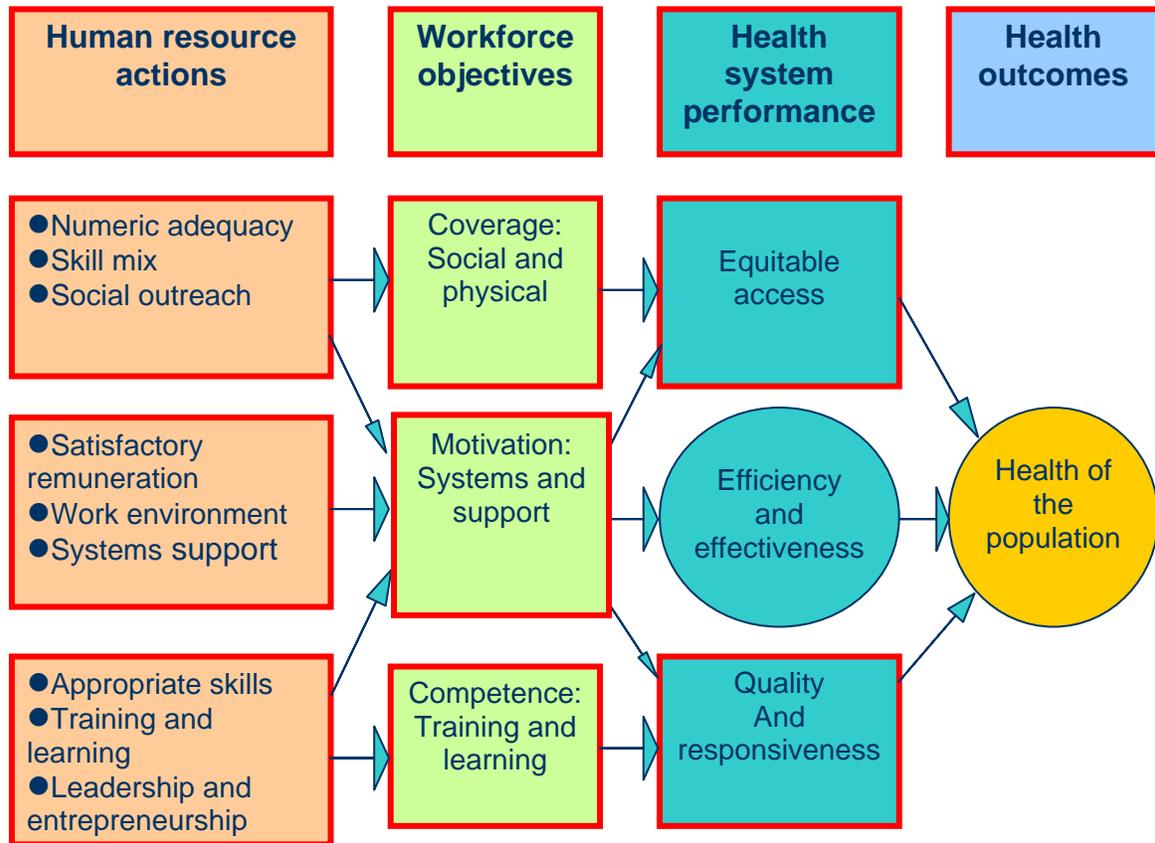
### ***Non-governmental provider in rural areas***

- Range of providers – Trusts, NGOs quacks, ISM / Allopathic practitioners, private nursing homes, clinics, etc.
- Round the clock availability in many cases. Can be reached during an emergency.
- Unregulated fee and non standard treatment protocols – the ‘ saline – syringe syndrome’.
- Leads to high out of pocket expenditures.

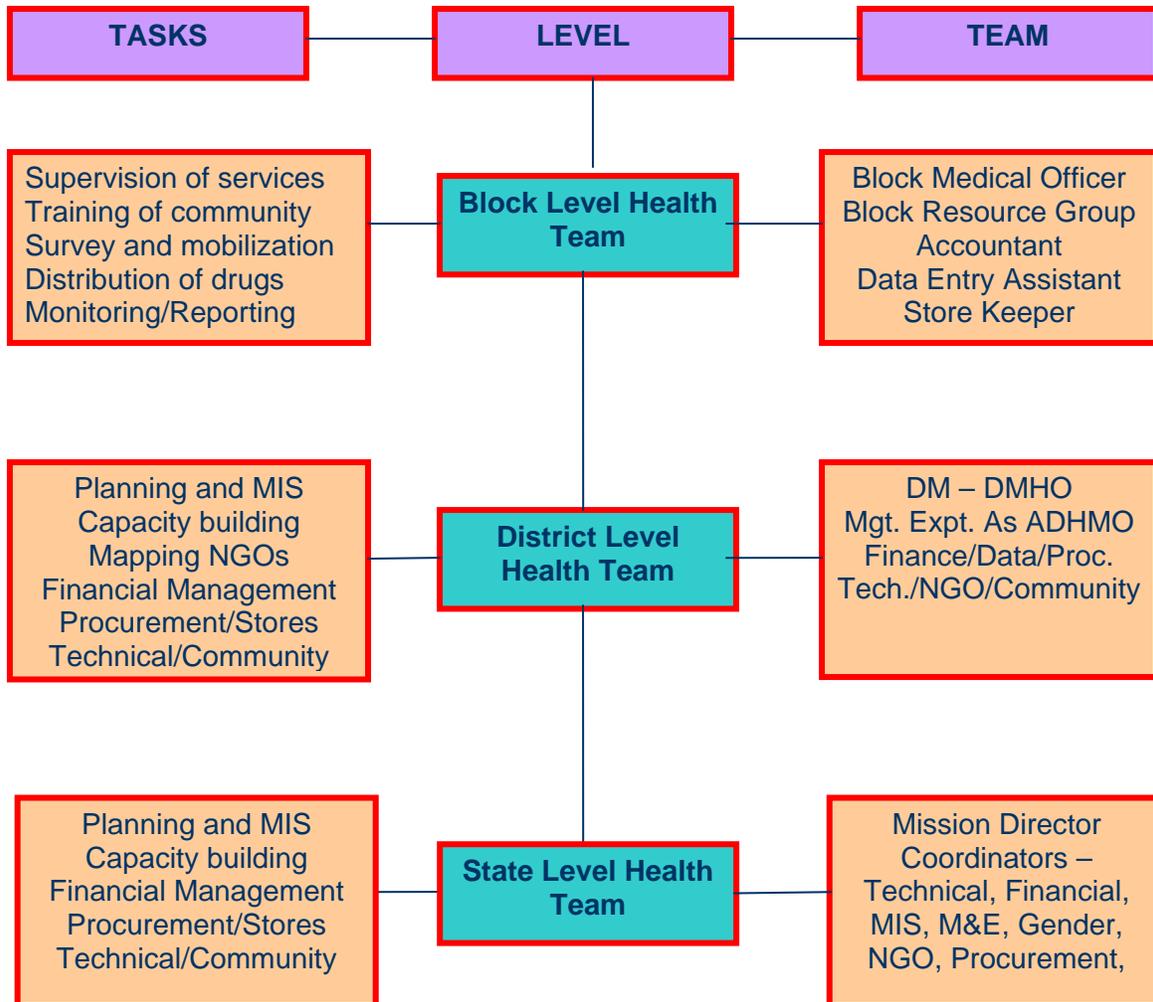
### ***Overhaul of the Public health system***

- Calls for ‘communitization’ of the health system – PRI and user groups at each level.
- Pooling of resources and optimal utilization.
- Decentralization for institutional autonomy.
- Decentralized local area planning with household and facility surveys.
- Providing 24 hour round the clock hospital like services in every Block.

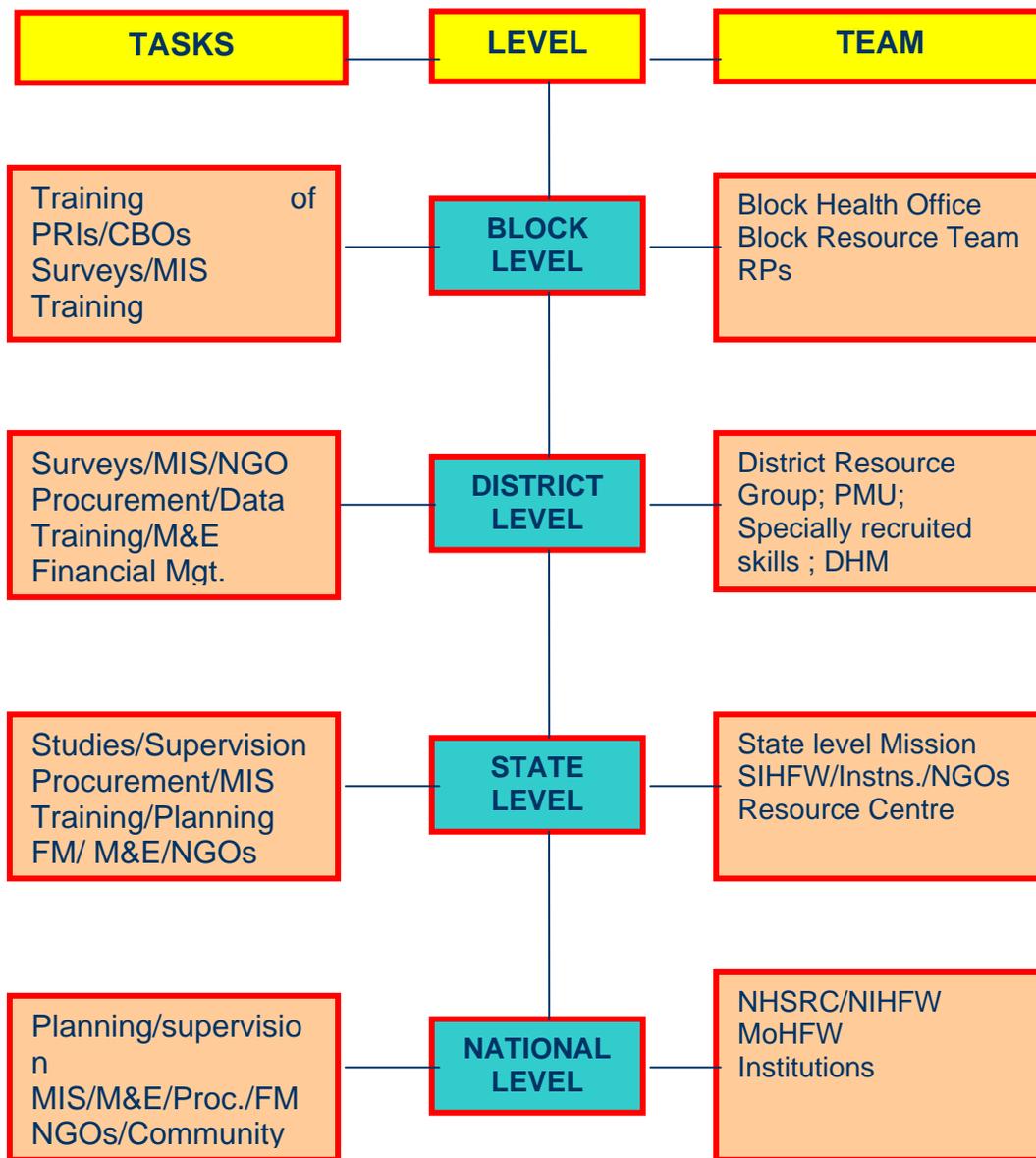
*Managing for performance*



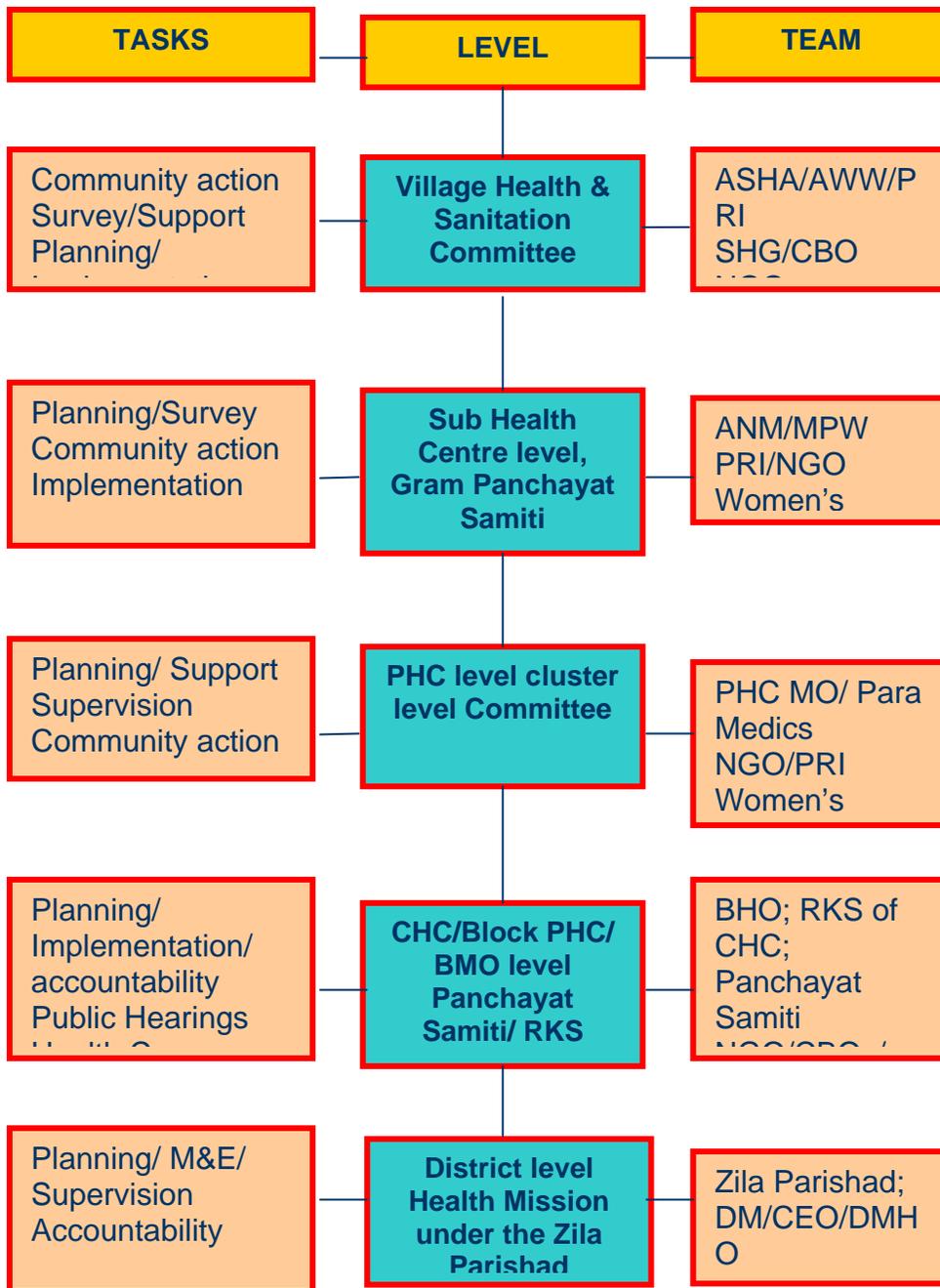
**Management of Health System**



**Building Capacity through Resource Groups**



**Communitization of Health Care**



Under the NRHM, the Public Health System will be strengthened at all levels. In the changed scheme of things, there would be 2 health workers and 1 voluntary work in each sub-centre, a mix of technical and administrative staff numbering 15 in new Primary Health Centres, a strength of 25 Community Health Centres. Besides additional staff would be provided at the different levels for achieving the IPHS standards. At the PHC there would be an additional medical officer and two staff nurses. While at the CHC the supportive staff would be 6-7 consisting of specialists, surgeons, anesthetist etc. The CHC will be additional provided with supportive manpower which will include technical and administrative staff.

The financial outlays required for strengthening manpower has been reflected under NRHM and is given in Annexure-X.

## Recommendations

1. Access to clean drinking water will need to be planned for and rigorously implemented.
2. Need to take stock of the habitation survey on Rural Water Supply System that was conducted in 2003 which has indicated large incidences of slippage from fully covered to partially/ not covered categories due to a number of factors such as services going dry, lowering of ground water levels, system outliving their lives and increase in population resulting in global per capita availability. The action plan under drinking water supply would then need to be suitably redesigned and operationalized.
3. Sanitation is another important factor decelerating improvements in health status. The position regarding connectivity for waste water across different States is alarming and would need to be addressed on priority in coordination with the Department of Drinking Water and Sanitation as lack of adequate sanitation is responsible for severe health problems. In fact cholera, dysentery, typhoid, infectious hepatitis and many other diseases can be traced to the unsanitary disposal of human excreta. ASHA should have a bathroom in her house.
4. The social consequences of lack of sanitation has given rise to manual scavenging which is banned. A sanitation movement both in the interest of social equity and prevention of diseases is to be taken up on a priority basis. All dry buckets should be converted to two pit compost flush toilet. All sanitation workers are to be provided with protective gear and medically examined annually.
5. Explore replicating on a large scale the experience of Sulabh Shauchalaya a low-cost sanitation technology.

6. Consider introducing where not already done toilet complexes with biogas plants in respect of district/taluka hospitals and CHCs.
7. Introduce environmental sanitation in all schools in the rural areas/urban slums etc.
8. To promote health education and awareness particularly with respect to drinking water and sanitation, consider the SWAJAL Project of U.P. being implemented with World Bank assistance that not only aims at providing drinking water in rural areas but covering a range of development initiatives including non-formal education, hygiene and environmental sanitation awareness and women's development initiatives.
9. Distribution of key micronutrients and addressing the problem of nutrition and anemia among women and children.
10. Building up an effective health system capacity so as to clearly focus on important health outcomes spelt out in National Health Policy 2002. The outputs to be achieved and outcomes projected to be in line with the Millennium Development Goals.
11. Broader range of drug regimens to be considered. A systematic effort to be made to analyze which approaches work and those which do not.
12. Promote high volume care for lower surgical procedures like cataract surgery where lower level workers could be appropriately trained to substitute for more expensive and difficult cases/surgeries.
13. Promotion of exercise and yoga as stress reducing factors to help in arresting obesity, diabetes and other life-style diseases.

14. Need to bring about a shift from specific project to programme support. Also ensure that releases are performance based with focus on final outcomes as in the case of RCH Phase-II.

15. Focus public resources for revitalizing and strengthening public facilities in disadvantaged areas and consider the feasibility/desirability of purchasing curative care from the private sector.

16. Professionalize service delivery by appropriate measures for increasing the number and quality of medical and nursing colleges.

- Ensure distributive equity across States by encouraging establishment of new medical colleges where there is a shortage.
- Increase public investment in the poor performing States to establish medical/nursing colleges or alternatively provide incentives to the private sector to set them up and regulate them effectively so as to ensure that there is no compromise in the standards and quality of care.
- Draw up an action plan to fill up the vacancies of the teaching faculty in medical colleges.
- Consider reviving the scheme of reorientation of medical education programme for preparing doctors to work in rural communities.
- Improve payment systems and design suitable incentives particularly housing and other facilities for retaining skilled doctors and specialists from moving into the private sector.

17. Better motivation and periodic training for multi-purpose workers and ANMs. Improvements to be also effected in the quality of training for nurses. According to the NCMH in 2004, 61.2% of nursing schools/colleges were found to be unsuitable for teaching. Though these were derecognized by the Indian Nursing Council they have no impact as they continue to function with a permission of State Nursing Council.

18. Uniform system of reporting of data by the State and their validation is very essential for policy making. The format designed for NRHM would be the starting point but efforts will need to be made to monitor data relating to outputs set against the outcomes envisaged. This will involve coordinating with other related Departments as public health services including water and sanitation cuts across different players at the Central and State levels.
  
19. Availability of timely data on physical progress would have a bearing on the allocations to be made under different services/segments within and outside health. The impact of these changing allocations alongwith expenditure incurred will need to be tracked appropriately through matrices in national health accounts. The National Health Accounts brought out for 2001-02 should be continued on an annual basis and systematically refined to act as a tool to policy makers for making investment decisions and tracking financial flows in the health sector.