Report of the Steering Committee
On
Health for the 12th Five-Year Plan

(Incorporating Reports of Working Groups and deliberations in Steering Committee meetings)

Health Division
Planning Commission
February, 2012

Table of Contents

Tables, Graphs and Boxes

Tables

Graphs

Boxes

डॉ. सईदा हमीद
Dr. Syeda Hameed
सत्यमेव जयते

सदस्य
योजना आयोग
योजना भवन
नई दिल्ली–110 001
MEMBER
PLANNING COMMISSION
YOJANA BHAWAN
NEW DELHI-110 001

Foreword

The Twelfth Five Year Plan process is yet another opportunity to review the health system of our country, but more importantly, to redeem our commitments to health and to lives lived with dignity. The Report seeks to lay out some of these commitments and also present a systemic plan for their fulfillment.

Our foremost commitment is towards evolving Universal Access to Essential Health Care and medicines, so that the disparities in access to health care, particularly those faced by the disadvantaged and underserved segments of the population, would hopefully be corrected.

The Report is organized into Chapters, which outline the key elements of an efficient health system.

It also recommends some strategic changes to the existing health programmes and schemes, such that they work in conjunction with each other and collectively contribute to building a comprehensive health system. Thus it shifts the focus to a ‘systemic’ approach to health, while also emphasizing the importance of the individual disease control programmes. Secondly, it suggests certain changes in the way we look at ‘public health’ and, its subsequent monitoring through public health systems reforms. A dedicated Public Health Cadre is proposed as the bedrock of the system.

The Twelfth Five Year Plan adopts a broad approach to health, including as ‘key determinants of health’, a range of resources like food supply chains and nutrition, drinking water and sanitation. Indeed, it takes the view that health would entail a ‘continuum of care’ across sectors. Accordingly, the health policy might encourage a multi-sectoral approach to health, which in terms of policy would translate into a ‘stewardship’ role for the Health Ministry over other sectors, in matters that have a direct bearing on health. This report proposes a road map, which is intended to guide the health sector in this regard.

In terms of the limitations of the Report, the needs of the health sector in the context of India's diversity are so complex that it is rather impossible to engage with all its dimensions. Thus, certain overarching principles have been prioritized for the purposes of this Report.

Additionally, corresponding key deliverables have also been identified, as means of evaluating the fulfillment of our commitments to health. In effect, the attempt is for the new Plan to be oriented both towards a 'process-based', and also an 'outcome-based', health system that performs in a cost-effective and efficient manner.

An efficient assessment of system performances requires built-in measurable indicators. To make information relating to such indicators easily available, the Plan would also prioritize the strengthening of the Health Information System.

In summary, the Twelfth Plan takes a systemic approach to health sector reforms. It seeks to provide a safe and healthy environment to communities, delivering universal access to basic health services, and to medicines, and regularly evaluating the health system. Also, by using techniques of communication, behaviour change and participatory governance to make communities generally more 'health conscious', which would, in turn, reduce health risks. The broader understanding of 'health' would include – and seek to correct – determinants such as inadequate nutrition and unsafe drinking water. The last two proposals underline the Plan's commitment to preventive and promotive health care. Finally, though a new range of innovations and practices for the health sector are recommended, which have huge financial implications, it has been the effort of the Steering Committee to focus on efficient utilization of available resources.

I hope and pray that we are together able to rise to the challenge and join hands to help fight disease, promote well-being, and transform India into a model for a cost-effective and efficient health system.

Dr. Syeda Hameed
Chairperson,
Steering Committee on Health and Member in-charge Health,
Planning Commission of India

Chapter-1: Framework for Health in 12th Plan

1.1 **A Renewed Commitment to Public Health:** 'Health', a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity[i], is a precondition to the realization of human potential and for attainment of happiness. Thus, health is both a social and an economic good. The Directive Principles of State Policy in the Constitution of India mandate 'improvement of public health' as one of the primary duties of the State. The Central and State Governments have been taking proactive steps to promote health of the people by creating a network of public health care facilities, which provide free medical services, and also proactively control the spread of diseases. Moreover, the Prime Minister in his Independence Day speech (2011) stressed upon the need to provide access to improved health services to all. Calling for the 12th Plan to be specially focused on health, the Prime Minister promised that funds would not be a constraint in the important areas of education and health.

1.2 **Review of the health system during the previous Plan:** A health system is the sum total of all the organizations, institutions and resources whose primary purpose is to improve health[ii]. The 11th Plan had set six health outcome indicators as time-bound 'goals'. These included lowering maternal and infant mortality, malnutrition among children, anemia among women and girls, and fertility, and raising the child sex ratio. Though, there has been progress on all these fronts, except child sex ratio, the goals have not been fully met. Low public spending on health (1% of GDP), high out-of-pocket payments (71%) (Table-1) leading to impoverishment, high levels of anemia (56% among ever-married women aged 15-45 years[iii]) reflect in high levels of malnutrition among children (wasting 22.9%, stunting 44.9%[iv]), high infant mortality (47/1000 live births[v]) and maternal mortality (212 per 1 lakh live births[vi]). India trails in health outcomes behind its South Asian neighbours like Sri Lanka and Bangladesh[vii], which have a comparable per capita income. Large variations within the country suggest that the health status of disadvantaged groups is even worse. Equally worrying is the growing reliance on private providers, which currently service 78% of outpatients and 60% of in-patients. For those who cannot afford private services, illness translates into high out-of-pocket expenditure as a proportion of total household expenditure, reaching catastrophic proportions at times (i.e. equal to or greater than 40% of a household's non-subsistence income[viii]). With a rising trend in non-communicable diseases, even as we try to conquer conventional, communicable diseases, India is facing a dual burden of disease, presenting a difficult challenge to the health system. Meanwhile, the strategies for provision of inputs and creation of health infrastructure under the National Rural Health Mission (NRHM) have not yet fully translated into assured health care services for the people.

1.3 **Identifying Structural Problems:** The health care system in the country suffers from inadequate funding. There are several structural problems too, like, the lack of integration between disease control and other programmes in the social sector, sub-optimal use of traditional systems of Medicines, weak regulatory systems for drugs as well as for medical practice, and poor capacity in public health management. A sound health system also requires the active participation of communities in preventive and promotive health care, on which the progress has been uneven.

Table-1: Health expenditure in India: 2002-2009

Year	2001-02		2004-05		2008-09	
	% of Total	% of GDP	% of Total	% of GDP	% of Total	% of GDP
Public Funds (Rs. Crores)	**21439**		**26313**		**58681**	
	20	**0.9**	**20**	**0.8**	**27**	**1.1**
Central Government	6719		9067			
	6	**0.3**	**7**	**0.3**		
State Government	13271		16017			
	13	**0.6**	**12**	**0.5**		
Local Bodies	1450		1229			
	1	**0.1**	**1**	**0.0**		
Private Funds (Rs. Crores)	**81710**		**104414**		**157394**	
	77	**3.6**	**78**	**3.3**	**72**	**3.0**
Households	76094		95154			
	72	**3.3**	**71**	**3.0**		
External Flows (Rs. Crores)	**2485**		**3050**		**3702**	
	2	**0.1**	**2**	**0.1**	**2**	**0.1**
Total Health Expenditure (Cr.)	**105634**		**133776**		**219777**	
	100	**4.6**	**100**	**4.2**	**100**	**4.1**
Per Capita Health Expenditure (Rs.)	**1016**		**1228**		**1904**	

Source: National Health Accounts[ix]

1.4 **Goals for Health Systems:** Any health system should set certain goals for itself, which may include a broad commitment to improving the health of the population, keeping principles of equity and democratic participation in mind. Such goals would, in turn, ensure that the guiding health policy is responsive to the expectations of the population, that it has an equitable position on financial contributions, and that it has strategies for both preventive and curative health care. Furthermore, only having fixed goals and a matching policy may not be enough. Progress towards the goals would eventually depend on how the three vital functions, namely, provision of health care services, its financing, and stewardship of inter-sectoral policies that may have a bearing on health are actually carried out. The processes that mould delivery systems, i.e. how democratic or responsive to local needs they are, would also have a bearing on the vital functions. There are also other dimensions that contribute to the overarching goals of health care system, which include 'quality',

'efficiency', 'acceptability' and 'equity'. Responsiveness of health systems is assessed by WHO[x] on users' perception of services on seven parameters, namely choice, communication, confidentiality, dignity, basic amenities, prompt attention and autonomy. Finally, while the goals of the health system are broad and more comprehensive, they may be summarily reflected in its health outcome indicators.

1.5 **National Health Outcome Goals for the 12th Plan:** The health system for the 12th Plan should address the objectives listed above and aim to build a collaborative environment for their realization. It should prioritize the making of the system responsive to the needs of citizens, and the attainment of financial protection for the health care of households. More specifically, the national health outcome goals, which are meant to reflect the broader commitments during the 12th Plan should be the following:

1.5.1 **Reduction of Maternal Mortality Ratio (MMR):** At historical rate of decline, India is projected to have an MMR of 149 by 2015 and 127 by 2017. An achievement of the Millennium Development Goal (MDG) of reducing MMR to 109 by 2015 would require a further acceleration of this historical rate of decline. At this accelerated rate of decline, the country can achieve an MMR of 75 by 2017.

1.5.2 **Reduction of Infant Mortality Rate (IMR):** At historical rate of decline, India is projected to have an IMR of 38 by 2015 and 34 by 2017. An achievement of the MDG of reducing IMR to 27 by 2015 would require an even further acceleration of this historical rate of decline. If this accelerated rate is sustained, the country can achieve an IMR of 19 by 2017.

1.5.3 **Reduction of Total Fertility Rate (TFR):** India is on track for the achievement of a TFR target of 2.1 by 2017, which is necessary to achieve net replacement level of unity, and realize the long cherished goal of the National Health Policy, 1983 and National Population Policy of 2000. Stagnant TFR over the last two years is, however, a matter of concern.

1.5.4 **Prevention and reduction of underweight children under 3 years:** Underweight children are at an increased risk of mortality and morbidity. At the current rate of decline, the prevalence of underweight children is expected to be 29% by 2015, and 27% by 2017. An achievement of the MDG of reducing undernourished children under 3 years to 26% by 2015 would require an acceleration of this historical rate of decline. If this accelerated rate is sustained, the country can achieve an under 3 child under-nutrition level of 23% by 2017. This particular health outcome has a very direct bearing on the broader commitment to security of life, as do MMR, IMR, anemia and child sex ratio.

1.5.5 **Prevention and reduction of anemia among women aged 15-49 years:** Anemia, the underlying determinant of maternal mortality and low birth weight, is preventable and treatable by a very simple intervention. The prevalence of anemia has shown a rising trend (58.8% in 2007, DLHS), which needs to be reversed and steeply reduced to 28%, which is half the current levels, by the end of the 12th Plan.

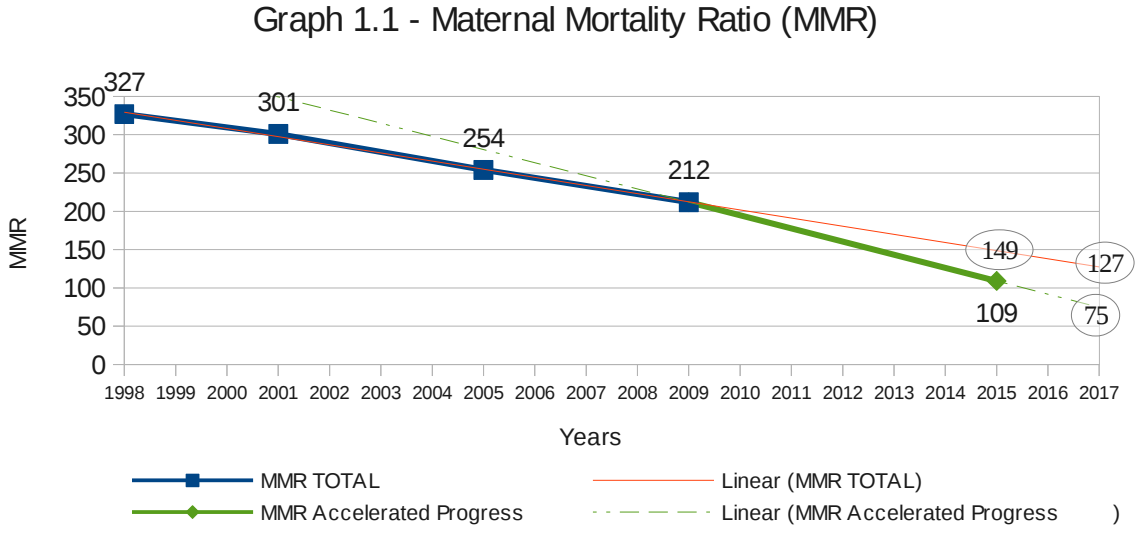
1.5.6 **Raising child sex ratio in the 0-6 year age group from 914 to 935:** Like anemia, child sex ratio is another important indicator which has been showing a deteriorating trend, and needs to be targeted for priority attention.

1.5.7 **Prevention and reduction of burden of diseases – Communicable, Non-Communicable (including mental illnesses) and injuries:** These add to the burden of disease, reduce longevity, add to health expenditure and are very amenable to public health and preventive measures. Targets for each of these conditions can be set by the Ministry of Health and Family Welfare (MoHFW) as robust systems are put in place to measure their burden.

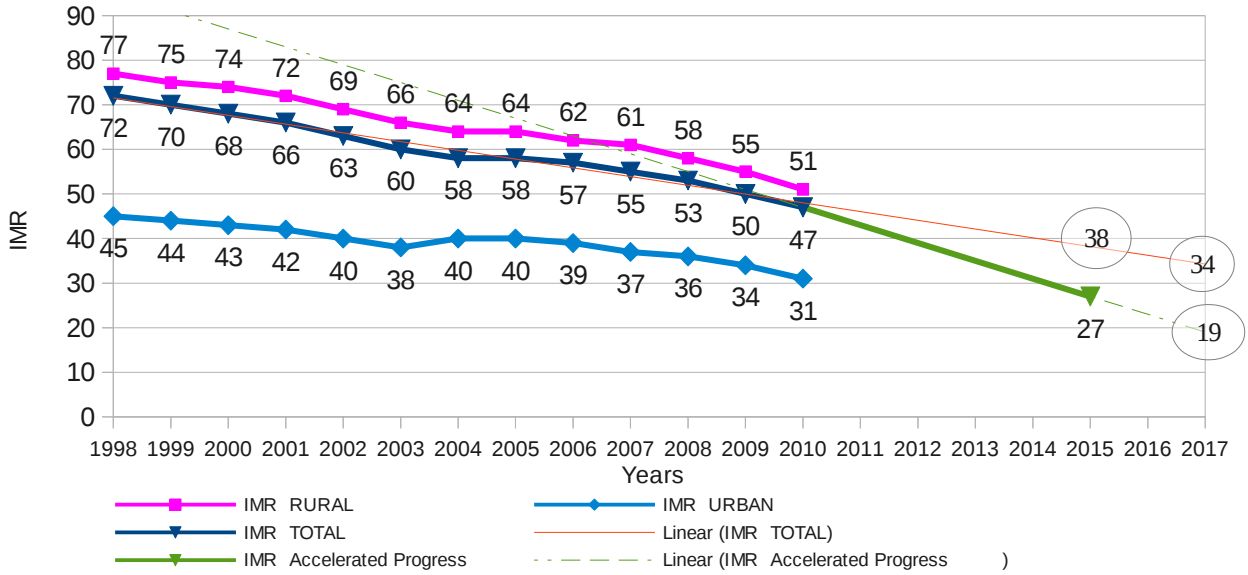
1.5.8 **Reduction of households' out-of-pocket expenditure from 71% to 50% of total health care expenditure:** Out-of-pocket expenditure on health care is a burden on families, particularly the poor ones, and a regressive system of financing. These need to be lowered to tolerable levels in the 12th Plan.

The following graphs map the trend for seven of the eight national health outcome goals described above, with projections for 2017, and suggest that it may be important to make some urgent and critical interventions, if India is to achieve the MDG and the 12th Plan targets. A more effective approach is called for, which this report attempts to frame.

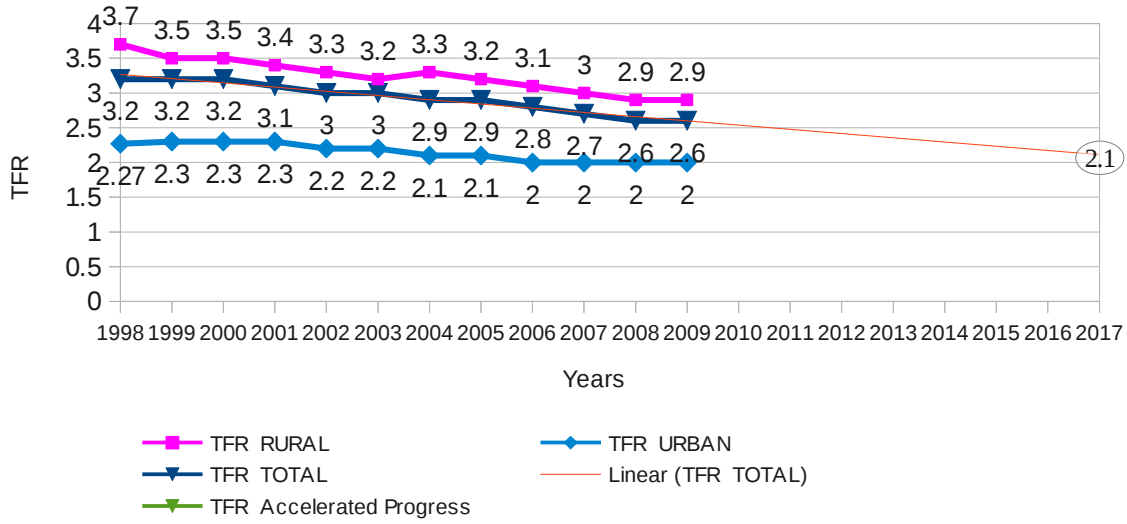
Graph-1: Trends in National Health Indicators and Projections till 2017



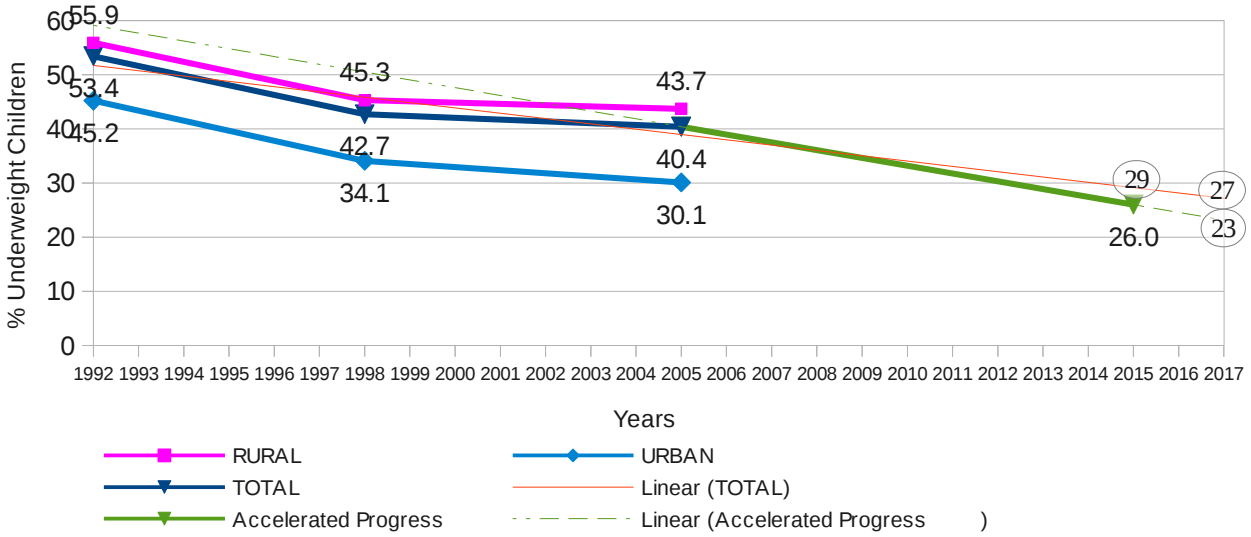
Graph 1.2 - Infant Mortality Rate (IMR)



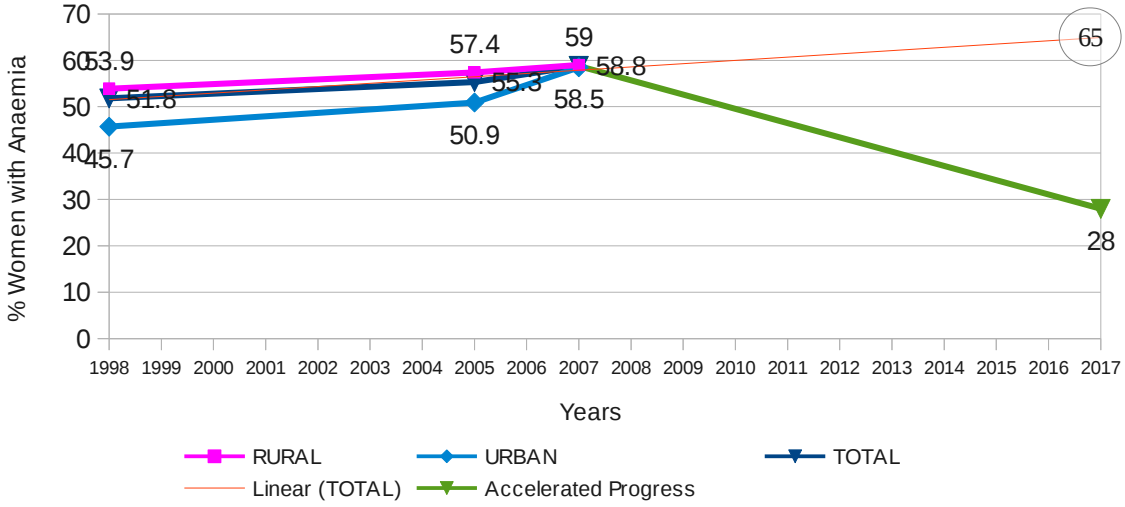
Graph 1.3 - Total Fertility Rate (TFR)



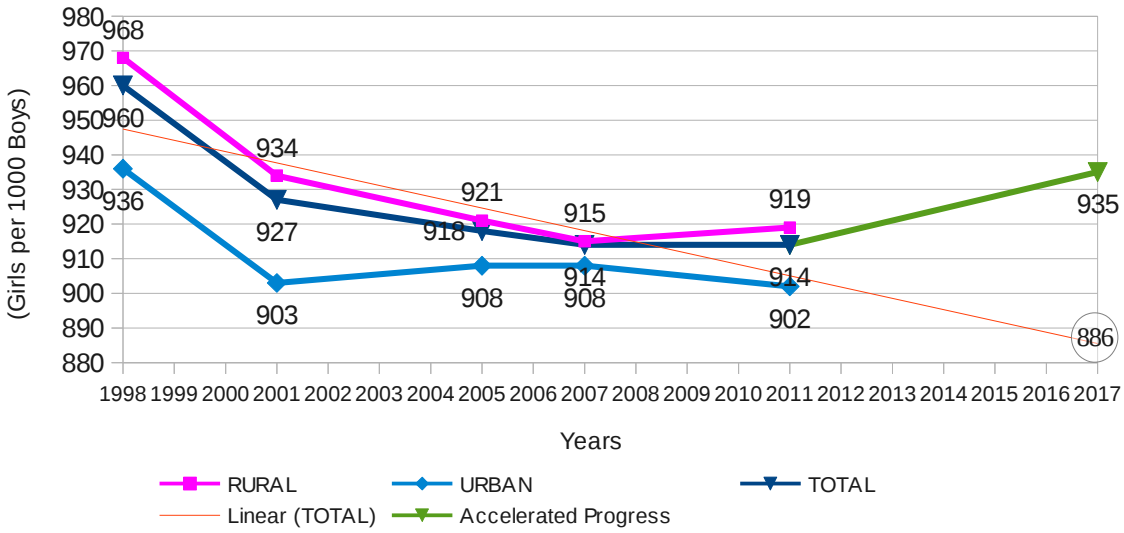
Graph 1.4 - Prevalence of Underweight Children under 3 years of age



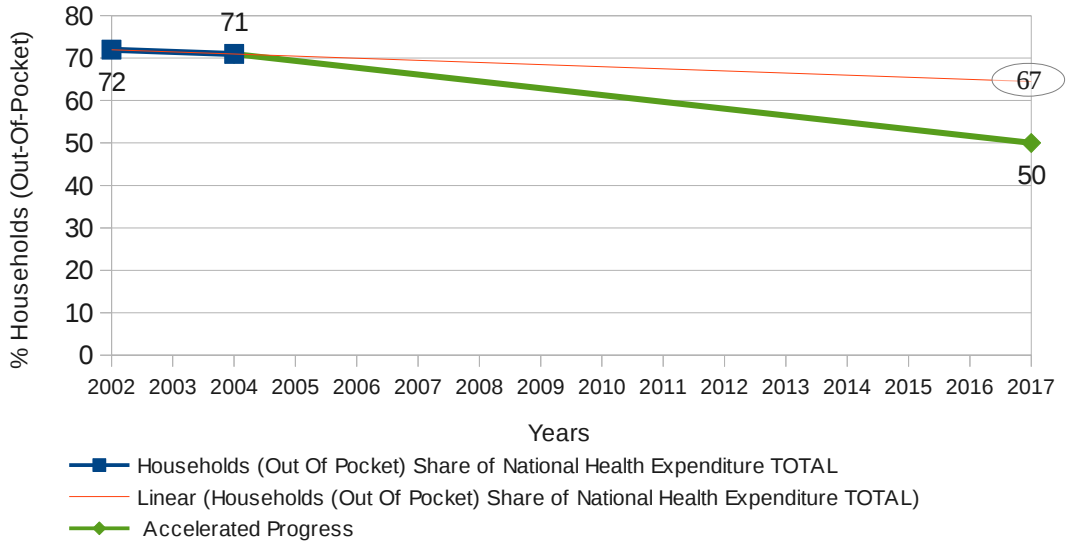
Graph 1.5 -Prevalence of Anaemia in Women age 15-49 Years



Graph 1.6 - Child Sex Ratio (0-6 years)



Graph 1.7 - Households (Out-Of- Pocket) Share of National Health Expenditure



1.6 **Overarching Principles and strategies for the 12th Plan:** The Parliamentary Standing Committees of the last five years, as well as the High Level Expert Group (HLEG) on Universal Health Coverage, and the 12th Plan Approach Paper have already provided various recommendations for improving health care delivery systems. In light of these recommendations, as also the experience of implementation of health programmes in the country and globally, the 12th Plan should adopt a systemic approach to Health. The following principles and strategies are recommended to build the health care delivery system in India.

1.6.1 Follow Principle of Subsidiarity with Stewardship role for Government: The Principle of Subsidiarity[xi] demands that matters be handled by the smallest, lowest or least centralized competent authority. The Constitution of India casts upon States and Local Governments the responsibility for Public health and sanitation, and for the maintenance of hospitals and dispensaries, which they should have full freedom to discharge. The Union Government should focus on items in the Concurrent list (regulations for food, drugs, medical profession, human resource in health, and vital statistics) and provide support to States and Local Bodies to discharge their roles. Wide diversity across the States in issues relating to health, culture, population dispersion, and administrative systems rules out a straitjacketed approach. Even so, a package of preventive, primary, Reproductive and Child Health (RCH) and Emergency Services backed by essential medicines, which is capable of addressing most of the disease burden in the country, should form the lowest common health care protection. There is a need to provide a framework that allows flexibility at local levels within the national priorities for health, and which incorporates interventions in preventive public health. This need can be operationalized through the instrument of State specific Memorandum of Understanding (MoU), which would specify the roles and responsibilities of authorities at the national and State levels. Regarding human resource (HR), para-medical professionals and community health workers should be trained and equipped, and given greater authority and responsibility in managing patients' health.

1.6.2 Target national health outcome goals: Every scheme or programme of the health sector should aim to address at least one of the eight national health outcome goals, and the link between the two should be made explicit through measurable intermediate and final indicators. The accountability for outcomes should be defined *a priori* in location specific plans.

1.6.3 Integrate vertical disease control programmes with NRHM: Integrated delivery of health services through a common institutional set-up has the advantage of optimal utilization of funds and infrastructure; also access is made easy, and it facilitates a holistic approach to health and addresses multiple determinants of disease. It was for these reasons that NRHM included the integration of vertical disease control programmes[xii] as a strategy. In reality, however, most of the other 15 vertical disease control programmes are administered independent of NRHM, which is focused on Reproductive and Child Health (Table-2). The Approach Paper to the 12th Plan prioritizes convergence among all the existing National Health Programmes under the NRHM umbrella. Though the services planned under all the pilot programs and some national programmes, like the one on Mental Health for instance, are needed all over the country, a fragmented approach has prevented its universal roll-out. Integration with NRHM would enable a package of services to be delivered all over the country through the NRHM set-up. While financial and managerial convergence with NRHM should be completed at all implementation levels, dedicated programme cells for individual programmes at State and National levels can

continue to provide the required technical support. In the past, several committees have also recommended the integration of preventive and curative services, as also public health with medical services (Mukerjee Committee[xiii], Jungalwalla Committee[xiv], Shrivastav Committee[xv]).

Table-2: Centrally Sponsored Disease Control Programmes

As a part of NRHM	Independent of NRHM ambit
1. Vector Borne Disease Control Programme 2. Tuberculosis Control Programme 3. Leprosy Elimination Programme 4. Iodine Deficiency Disorder Control Programme 5. Blindness Control Programme 6. Drug-addiction Control Programme	7. National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Disease and Stroke 8. Tobacco Control Programme 9. Mental Health Programme 10. Trauma Care Programme 11. Programme for Prevention of Burn injury 12. Health Care for the Elderly **Pilot Projects** 13. Sports Medicine 14. Deafness control 15. Leptospirosis control 16. Control of human rabies 17. Medical rehabilitation 18. Organ transplant 19. Oral health 20. Fluorosis control **Under Department of AIDS Control** 21. National AIDS Control Programme

1.6.4 Universal and cashless access to an Essential Health Package including Essential Medicines: It is time to move towards assured provision of quality services in health care, in order to meet citizens' expectations and needs, bring in more accountability in healthcare delivery, and to lower out-of-pocket expenses on health. The functions of financing, empanelment and regulation of providers should be undertaken by existing or new Government/quasi-Government Agencies in the States. In order to spur competition and make providers responsive, beneficiary families should be provided a choice to opt for a health provider from a panel of public, private and not-for profit providers. All providers should be incentivized on the basis of their contribution to health outcomes, to be monitored by the proposed Health Information System (HIS). Public health care facilities should be provided financial and operational autonomy so that they are able to compete with private and Non-Governmental Organization (NGO) providers.

1.6.5 Build a Health Information System (HIS): The HIS should be both population and community based and should include 'facility-based' information. It should link all service providers, laboratories and public health managers, so that it is able to provide information needed to monitor disease burden, and subsequently support decision-making and resource allocation. Such an arrangement will enable efficiency in management of public

health facilities. Of course, requisite safeguards for protection of privacy rights will have to be put in place. Universal vital registration would be the foundation of a complete HIS. To ensure quality, the data needs to be tallied with periodic surveys and community based monitoring. The desirability for building a sound HIS has been consistently emphasized by committees set up on health. (Bajaj Committee[xvi], HLEG[xvii])

1.6.6 Address social determinants of health and convergence with policies and programmes of other ministries impacting health: The MoHFW should become a stakeholder in every policy decision that has a potential impact on health. Conversely, MoHFW should proactively suggest policy options to other Ministries on matters that have a bearing on health.

1.6.7 Perform Essential Public Health Functions: These are fundamental activities that monitor 'determinants of health' in order to protect the health of the population. These functions have an impact on citizens' lives and thus, the Government has a duty to ensure that these are carried out. The 11 Essential Public Health services[xviii] which the Government must provide are:

i. Monitoring, evaluation, and analysis of health status of populations;
ii. Public health surveillance, research and control of risks and threats to public health;
iii. Health promotion;
iv. Social participation in health;
v. Development of policies as well as institutional capacities for planning and management of public health;
vi. Strengthening of institutional capacities for regulation and enforcement in public health;
vii. Evaluation and promotion of equitable access to necessary health services;
viii. Human resources development and training in public health;
ix. Quality assurance in personal and population-based health services;
x. Research in public health; and
xi. Reducing the impact of emergencies and disasters on health.

The jurisdiction of public health facilities should be aligned to that of other Departments responsible for development, and its functionaries made responsible, and accountable, for the health status of the resident population.

1.6.8 Leverage strength of private sector, subject to strict checks and balances: With 80% of doctors, 26% of nurses, 49% of beds and 78% of ambulatory services and 60% of in-patient care the private sector has to be partnered for health care delivery. Private providers running small 'family practices' are ubiquitous, penetrating even very remote areas of the country. While existing Government Sponsored Health Insurance Schemes are already enrolling private providers for in-patient care, models for utilizing the reach of such small private practitioners for provision of ambulatory care, which comprises two thirds of

out-of-pocket expenses (NHA, 2004-05), need to be devised. The HLEG has recommended utilizing private sector capacities via a 'contracting-in' mechanism, albeit within a strict regulatory framework.

1.6.9 Develop public health workforce by enrolling, training and deploying locally resident human resource, particularly para-medical professionals, in Government facilities. The existing Community Health Centres (CHC) and District Hospitals need to be strengthened into training institutions. Special attention is required to the provision of quality training to Accredited Social Health Activists (ASHAs), preferably jointly with Anganwadi Workers (AWWs). In addition, managerial capacities need to be augmented by expanding capacity for training in public health. Medical education should be made relevant to the needs of the country, and medical colleges should be made responsible for the health of the population in their catchment area.

1.6.10 Strong regulation of the health sector, covering Public Health, drugs, food, education and medical practice: States need to enact Public Health Acts so that their health machinery is empowered and may take on the responsibility of attending to public health and sanitation issues on a routine basis. The Bajaj Committee[xix] had also recommended the adoption of the Model Public Health Act of 1987[xx]. As regards drugs, while the Essential Medicine List needs to be brought under price control mechanism, the issue of proliferation of irrational prescriptions, and also the possibility of conflicts between regulatory authorities at the State and National levels should be resolved. The National Council for Human Resources in Health (NCHRH) is expected to address the gaps in regulation in professional and para-professional education, an exercise that may well be expedited. In the food sector, while the Food Safety and Standards Act (FSSA) of 2006 is in place, the challenge is to translate it into better food regulation on the ground. With respect to medical practice, Government must mandate evidence based and cost-effective clinical protocols of care, which all providers must follow. Clinical decision-making should be routinely subjected to medical audits to confirm compliance.

1.6.11 Promote research in national health outcomes by competitively inviting proposals from all eligible research Agencies in the country.

1.6.12 Integration of AYUSH in teaching, research and practice: The goals of the 12th Plan can be realized only if the strengths of Indian Systems of Medicine and Homeopathy and the vast human resource of its practitioners are suitably trained and used. For this, integrated models of teaching, research and practice would need to be devised and implemented, and cross-referrals encouraged.

1.7 Structure of the Steering Committee Report: The Planning Commission appointed seven Working Groups on subjects that coincided with the existing distribution of work at

the Ministry (NRHM, Tertiary Care Institutions, Disease Burden - Communicable and Non-Communicable Diseases, Drugs and Food Regulation, Health Research, AIDS Control and AYUSH) to deliberate on and recommend the course of action for their respective thematics. The reports of the seven Working Groups were summarized and analyzed in the Health Division, and used as inputs for a round of brainstorming of the Steering Committee on ten, freshly identified cross-cutting themes, which were more closely aligned to the spirit of the Prime Minister's call for improved health services. The recommendations of the Working Groups on sectoral plans of the Divisions of MoHFW informed by the discussions in the Steering Committee and aligned to the overarching principles enumerated above are presented under the following ten heads which constitute key elements of a robust health system illustrated in Table-3.

1.7.1 National Health Programmes
1.7.2 Health Information Systems
1.7.3 Convergence with other Social Sector Programmes
1.7.4 Public Health Management
1.7.5 Strengthening Tertiary Care
1.7.6 Human Resources for Health
1.7.7 Regulation of Food, Drugs, Medical Practice and Public Health
1.7.8 Promoting Health Research
1.7.9 AYUSH – Integration in Research, Teaching and Health Care
1.7.10 Inclusive Agenda.

It may be noted that the ten heads are illustrative, but not exhaustive, of strategies needed to ensure an equitable and efficient health system.

To facilitate translation of recommendations of this Committee to concrete budgetary allocations, the write up has been aligned to individual schemes, wherever they exist. No monetary values have been recommended for any of the themes, as the purpose of the present exercise is only to identify key actionable areas; detailed budgetary requirements can be worked out during official level discussions.

Table-3: Health Systems for the 12th Plan: An Overview

Note: Illustration depicting the interplay of elements of the Health System. Universal Health care is built upon an adequate HR base, access to essential medicines and requires an enabling environment comprising Regulation, Health Information Systems, Public Health and Convergent delivery of services. AYUSH and Research are cross-cutting disciplines and impact each of the remaining themes. The illustration builds upon the recommendations of WHO[xxi] on Health Systems Strengthening and includes other key elements in the Indian context.

Chapter-2: National Health Programmes

2.1 Impressive gains made by National Health Programmes like NRHM, as well as other disease control programmes, should now be channeled to deliver Universal Health Care (UHC) in all urban and rural areas during the 12th Plan period. The Steering Committee recommends that states continue to bear 15% of the programme costs. The process should start during the first year of the Plan with UHC pilots being run in one district of each State and UT. Concurrently, the management structures of National Health Programmes would have to be revamped in order to prepare themselves to deliver the promise of UHC. Key recommendations on this transition are as follows.

2.1.1 Our health systems need to move from a vertical disease based approach to a holistic strategy for health promotion based on strengthening of health systems. The B.K. Chaturvedi Committee[xxii] on Restructuring of Centrally Sponsored Schemes has also recommended merger of individual disease control programmes. The NRHM governance structure should be used to provide leadership to all the National Health Programmes at district levels and below. The operations under the National Disease Control programmes should be harmonized under NRHM so as to avoid duplication and provide convergent services in a cost-effective manner.

2.1.2 Infectious diseases such as tuberculosis and malaria need focused attention and a continued commitment to prevention and control. For the escalating threat of non-communicable diseases like cardiovascular diseases, diabetes, cancers and chronic respiratory diseases which are major killers, especially in middle age, a package of policy interventions are required, including tobacco control, early detection and effective control of high blood pressure and diabetes and screening for common and treatable cancers.

2.1.3 Problems relating to mental health should be managed with sensitivity at the community level, and this may be encouraged through better training of community workers and primary care teams, and through education of care givers. Care for the elderly should focus on promoting healthy lifestyles, encouraging care within families, integrating strengths of Indian Systems of Medicine with Modern Systems of Medicine in rejuvenation therapies, and preferential attention in all public facilities.

2.1.4 While consolidating and intensifying focus on high-risk groups and vulnerable population, the HIV/AIDS program for the general population should be integrated within the routine machinery for delivery of public health in terms of:

i. Increasing access and promoting comprehensive care, support and treatment;
ii. Expanding Information, Education and Communication (IEC) services;
iii. Enhancing institutional and HR capacities at national, State and district levels; and

iv. Strengthening and use of Strategic Information Management Systems.

2.1.5 Blood safety and availability is not just a concern in the spread of HIV, but also of other infections such as Hepatitis, and has an impact on the general ability to save lives, as in the case of accident victims, pregnant women, thalassemic patients. Thus, the issue of blood safety should be moved from the Department of AIDS Control to the Department of Health and integrated with the general health system.

2.1.6 In order to bring the fertility rate of the country to 2.1, focused efforts would be required in high fertility States to make Family Planning services (including spacing, limiting and abortion) available and for educating families. Services and contraceptive devices would have to be safe, of good quality and also easily accessible. This may be achieved through a range of strategies including social marketing, contracting and engaging with private providers as in the Chiranjeevi scheme of Gujarat. Post-partum contraception and male sterilizations should also be promoted.

2.1.7 Investments under the National Health Programmes on the creation and strengthening of infrastructure and human resource for supply of clinical curative services (both fixed and mobile) should continue; states should prioritize infrastructure development taking into account the unique geographical features and social structures that affect access. Epidemiological profiles should also dictate infrastructure development and also health human resource recruitment, while underlining the importance of optimum utilization of existing infrastructure.

2.1.8 The financial management system of NRHM provides for routing of funds through Societies, bypassing the treasury system. While such an arrangement has helped in speedy transfer of funds, it has also loosened time-tested system of checks and balances. The present financial system needs to be re-looked at so as to strike a balance between expedition and propriety. Incentives for generation of demand, such as Janani Suraksha Yojana, and sterilization compensation should form a part of the UHC envelop, as entitlements to a basket of services would be integral to UHC.

2.1.9 Health care facilities at the PHC, CHC and District levels should be aligned to the territorial jurisdiction of Departments engaged in developmental activities, and made responsible for health outcomes of the resident population. The roles and responsibilities of Medical Officers in charge of public health facilities would have to be expanded to cover all determinants of health, with a focus on improving national health outcome indicators.

2.1.10 There should be a continuum of care in the health system. In other words, primary, secondary and tertiary care facilities should be functionally linked and work together for prevention, early detection, care and rehabilitation in the community and in the facility. The

case study below illustrates.

Box-1: Illustration of Continuum of Health Care

Diabetic retinopathy is a complication of diabetes that damages blood vessels inside the retina at the back of the eye. This is associated with the level of control of diabetes and monitoring of the condition of the retina. There are no early-stage symptoms of diabetic retinopathy and vision loss may not occur until the disease is advanced. Regular eye examinations reduce the risk of vision loss and blindness caused by diabetic retinopathy. Laser treatment or surgical intervention is required only when the disease is allowed to progress. However, given the widespread incidence of diabetes and the sudden onset of vision loss, gearing to tackle the problem by providing care only at the tertiary level would be like fighting a losing battle. A more effective way of treating the problem is to continuously monitor all diabetics at the primary level and refer them as soon as there are signs of a problem. This model has been adopted by Aravind and is proving to be successful. Rural primary eye care centres track all diabetics in their service area and encourage regular eye check-ups.

2.1.11 The CHCs and District Hospitals should be strengthened to provide advanced levels of secondary care. Options for contracting-in of services from private and NGO providers should be explored, wherever relevant.

2.1.12 Disparities in access to health facilities, especially acute care, is a major concern. Hence, facilities for Emergency Medical Referral Services, including over waterways, should be planned and made available to people all over the country, so that even residents of remote locations can reach a health facility within a defined time period. States should plan to ensure that services for referral transport, including over waterways wherever relevant, for pregnant women and infants exist in all blocks. The possibility of positioning such referral with the response teams of firefighting Departments, as is the practice in many developed nations, should be explored. Adequate arrangements for managing disasters, in terms of early response, search and rescue, emergency care and rehabilitation should be put in place.

2.1.13 For ensuring access to health care among under-served populations, the existing Mobile Medical units should be expanded to have a presence in each CHC. Mobile Medical Units may also be dedicated to certain areas, which have a marked presence of moving populations. For example, boat clinics of C-NES in Assam[xxiii] are providing curative and emergency care for the population residing in islands and flood plains of the State.

2.1.14 Health requirements in urban areas, particularly of slum dwellers, need attention. The urban areas present unique challenges such as overcrowding and consequent sanitation problems, pollution, risk of road traffic injuries, and higher rate of crime. On the other hand, these areas also offer opportunities such as availability of private providers and

facilities, NGOs and citizens' groups and better access to transport and telecommunication thus making health related interventions relatively easier. This provides ample scope for contracting arrangements in urban areas for the Essential Health Package (EHP), in addition to strengthening the existing public facilities. The medium of Urban Local Bodies (ULBs) should be used to elicit community participation and address the social determinants of health. The empowered ULBs and Ward Committees can foster community processes. Mass media campaigns, school health programmes and greater involvement of NGOs can introduce 'health consciousness' and also advocate behaviour change in respect of 'health risks'. The existing Institutional framework under NRHM may be followed and expanded into a National Health Mission for providing services in both urban and rural areas.

2.1.15 States should be given greater flexibility to devise norms for staffing of front-line health workers and broader HR policies, which would dictate the incentive structures, etc. The HR policy should be suited to local conditions, rather than centrally dictated, with the condition that essential public health functions are carried out efficiently and as per the mutually agreed Memorandum of Understanding (MoU) with the Central Government. The front-line health workers should be made responsible for the entire spectrum of health services and provided incentives that are imaginatively tailored, and responsive to local health issues.

2.1.16 Funds, functions and functionaries of the health set-up, including the health Sub-Centres, Anganwadi Centres (AWC) and also the Village Health, Sanitation and Nutrition Committees (VHSNC) should be devolved to the Gram Panchayat, the Village Council or its equivalent in the Scheduled Areas.

2.1.17 To address social determinants of health and effectively enforce regulatory provisions in the country, Public Health Cadre should be put in place and empowered under the respective State Public Health Acts.

2.2 Medicines are key elements in service delivery and the biggest cause of out-of-pocket spending on healthcare by households. The 12th Plan should aim to provide access to essential medicines in every public health care facility. Four elements of a sound drug system are an Essential Drugs List, Drug Formulary, Standard Treatment Guidelines and a Public Procurement Agency. Standard Treatment Guidelines enable standardization of treatment procedures, predictability of outcomes, and contain costs by reducing unnecessary investigations and promoting essential drugs. The following are recommended:

2.2.1 Essential Drugs List, Drug Formulary, Standard Treatment Guidelines should be regularly updated, and made accessible to all Government health facilities. Concurrently,

the concept of rational drug use must be advocated among the physicians and the general public, and prescription audits undertaken to monitor compliance.

2.2.2 A Central Procurement Agency is being set up at the national level. Transparent systems should be built to ensure that all procurements adhere to the highest standards. States should also be encouraged to position Special Purpose Vehicles, like the TNMSC, for managing procurement and logistics for 'Free Medicines for All' in public health facilities. Under this model, procurement of quality generic medicines is done in bulk directly from quality-certified manufacturers through a transparent bidding process. The supply of medicines is demand-based, instead of the traditional 'supply driven' system. Adequate preparatory work, in the form of construction of warehouses, building of cold-chain and training of personnel is required to realize the ideal of 'Free Medicines for All' in public health facilities.

2.2.3 The Public Procurement Agency is likely to meet the needs of Government health facilities alone. To address the need for rational drugs at reasonable prices in the private market, Jan Aushadhi stores should be expanded to all districts, subdivisions and blocks. Jan Aushadhi should also open e-stores to enable regular and bulk purchase of medicines at reasonable rates. The Scheme for the promotion of Jan Aushadhi stores can be transferred from the Department of Pharmaceuticals to the MoHFW, under which these stores can be suitably integrated with the proposed Central Procurement Agency.

2.3 Operationalizing Universal Health Care during the 12th Plan: It is estimated that 300 million persons are already covered by the existing health insurance schemes, both Government sponsored and commercial (Table-4).

Table-4: Population Covered under Health Insurance (in millions)

Scheme	Coverage in 2009-10
Central Government	
Employees State Insurance Scheme	56
Central Government Health Scheme	3
Rashtriya Swasthya Bima Yojana	70
State Government	
AP (Aarogyasri)	70
TN (Kalaignar)	40
KA (Arogyashri)	1.4
KA (Yeshasvini)	3
Total Government -sponsored	**243**
Commercial Insurers	55
Grand Total (includes others not listed above)	**300**

Source: World Bank, India office courtesy Jerry La Forgia and Somil Nagpal

The definition of UHC proposed by the High Level Expert Group can be accepted with an amendment that all residents of the country, and not just the citizens should be entitled to these basic services. UHC can then be defined as follows.

"*Ensuring equitable access for all Indian residents in any part of the country, regardless of income level, social status, gender, caste or religion, to affordable, accountable and appropriate, assured quality health services (promotive, preventive, curative and rehabilitative) as well as services addressing wider determinants of health delivered to individuals and populations, with the Government being the guarantor and enabler, although not necessarily the only provider, of health and related services*."

Inherent in the above definition is an assurance from the Government to provide an EHP to every resident of the country in a cashless manner. Being directly responsible for provision of public health, and running of hospitals and dispensaries, State Governments would need to be supported by the Central Government in extending UHC to the entire population of the country by the end of the 12th Plan. Cashless and portable UHC should be piloted in one District in each State and UT during the first year of the 12th Plan, and gradually rolled out thereafter.

Key features of the proposed UHC should be as follows:

2.3.1 Universal Health Care (UHC) should be financed by Central and State Governments on a 85:15 sharing basis. Central assistance should be made available to States through Additional Central Assistance through a scheme along the lines of Rashtriya Krishi Vikas Yojana[xxiv] (RKVY) after signing a MoU. Since NRHM already includes some beneficiary oriented components that overlap with UHC, a proportional re-allocation of NRHM outlay towards UHC should be done at the budgeting stage itself. For the States to be eligible for availing the Additional Central Assistance for UHC, each State should ensure that the share of medical and public health in its Plan and Non-Plan budget is at least maintained at the average for the last three years. States can include additional services in EHP, costs of which they would be expected to meet from their own resources. Services in addition to EHP may be purchased by families from the open market as additional top-ups at their own cost.

2.3.2 An Essential Health Package (EHP) covering out-patient and in-patient healthcare should be provided as an entitlement to every family resident in the area. To begin with, core components of the EHP must include all the preventive, promotive, curative and rehabilitatory services in routine and emergency settings available under RCH and national health programmes (listed in Table-2). To focus on prevention, and to reduce out-of-pocket expenditure on ambulatory care, two-thirds of the EHP funding per family should be reserved for out-patient care, and the remaining for in-patient care.

2.3.3 Systems for financial and operational autonomy of public health care facilities should be developed, enabling them to receive credits for the EHP services provided, which they might use for getting the needed supplies of medicines and equipments, and for paying incentives to employees within ceilings specified by the State. Thereby, funding for drugs and consumables would be linked to case load in the facility. Public health care facilities should earn credits for providing EHP to families enrolled with them, which could be used for a defined set of items, like obtaining additional supplies of drugs, consumables and equipments, renovation of facility and incentives to employees.

2.3.4 For provision of ambulatory Essential Health Package (EHP), two different sets of pilots can be run depending on availability of services, namely with public providers only, and a second model with public and empaneled private and NGO providers. In both models, each family should be able to opt for their 'provider of choice', the choice being exercised once a year. Since a part of the payment, at least, would be performance and health outcomes based, empaneled providers might decline the poor and not so healthy cases. However, this could be balanced by also allocating points for responsiveness to patients, as well as the class and other diversity of patients that a health provider is responsible for. In addition, to avoid cherry picking of patients, the empaneled provider should be mandated to accept whoever opts for it. The EHP should include linkage of providers to Government pharmacies (in case of public facility) and a network of Jan Aushadhi stores (in case of private provider/facility) for a prescription based, full and free access to essential, generic medicines. For secondary and tertiary care, the primary provider should be the gatekeeper for referring the patients/ families to a facility of their choice from amongst empaneled public and private providers.

2.3.5 The District Health Societies of NRHM, as well as the State and District Programme Management Units in consultation with agencies implementing Rashtriya Swasthya Bima Yojana in the States would be expected to provide back-up support for enrolling families, empanelment of providers, quality control and payment mechanisms. Engagement of insurance companies is not being advocated since financial risk would be borne by Governments, longer term well-being is being targeted and UHC is expected to maximize care within limited resources. Simultaneously, longer term investments in preventive care are envisaged.

2.3.6 Ambulatory care under the EHP should be paid using a 'Capitation Fee Model', whereby each provider receives a designated sum on a per family per annum basis. In case of in-patient care, the payment structure should be 'fee for service' as followed in existing Government sponsored health insurance schemes.

2.3.7 Entitlement based UHC arrangements run the risk of open-ended cost escalation. Such a possibility will have to be guarded against and the UHC outlay capped at levels

within the fiscal capacity of the Government through measures such as insisting on Standard Treatment Guidelines, use of generic medicines, working out costing norms before empanelling non-Government providers, building capacities of public facilities, and encouraging preventive behaviours.

2.3.8 Monitoring and Evaluation of financial and service management of the UHC should be developed and strengthened through real time data collection and a strong HIS.

2.3.9 Before rolling out UHC in pilot mode, preparations for the following items need to be initiated:

i. Prepare the UHC Plan along with the District Health Action Plan (DHAP) of NRHM for the pilot district and identify the items to be covered for EHP;
ii. Frame and ensure compliance with Standard Treatment Guidelines;
iii. Strengthen the State and District programme management units to implement the EHP;
iv. Empanel private providers following due-diligence and introduce a transparent selection system;
v. Enlist beneficiary households and issue 'Entitlement Cards';
vi. Build an effective system of community involvement in planning, management, oversight and accountability;
vii. Build an effective community oversight and grievance redressal system through active involvement of Local Self-Government agencies and civil society;
viii. Develop and strengthen Monitoring and Evaluation Mechanisms.

2.4 The UHC should be expanded in phases during the 12th Plan. Preparatory work for completing the list of beneficiaries for Districts to be covered in the second and subsequent years also needs to be simultaneously initiated in the first year itself.

Chapter-3: Health Information Systems

3.1. The overarching goal is to develop a HIS which can regularly track the progress of the country in achieving the eight national health outcome indicators, and in identifying areas and populations which lag behind on health indicators, with sufficient accuracy, so as to enable remedial action. To achieve this goal, the HIS has to necessarily rely on universal vital registration, and the networking of all health service providers, public and private laboratories. Data fidelity should be assured by triangulation with data from periodic surveys and community based monitoring, which should continue with a greater frequency. Strict compliance with the right of privacy should also be maintained.

3.2. A composite HIS should incorporate the following:

3.2.1 Universal registration of births, deaths and cause of death. Vital registration provides base-line data on cause specific mortality at national and disaggregated levels. Maternal and infant death reviews should be integral components of the system.

3.2.2 Nutritional surveillance, particularly among women in the reproductive age group and under six children, linked to the ICDS Programme.

3.2.3 Disease surveillance based on reporting by providers and clinical laboratories (public and private) to detect and act on disease outbreaks and epidemics.

3.2.4 Out-patient and in-patient information through Electronic Medical Records (EMR). This will help provide the best care based on Standard Treatment Guidelines, reduce response time in emergencies, support the organ retrieval and transplantation programme and improve general hospital administration. It would also help estimate burden of disease and facilitate policy decisions at State and national levels.

3.2.5 Data on Human Resource within the public health system.

3.2.6 Financial management in the public health system. This will help streamline resource allocation and transfers, and accounting and payments to facilities, providers and beneficiaries. Ultimately, it would enable timely compilation of the National Health Accounts on an annual basis.

3.2.7 Use of Communication and Information Technology (ICT) in medical education by promoting a national repository of teaching modules, case records for different medical conditions in textual and audio-visual formats for use both by the teaching faculty, students and practitioners for Continuing Medical Education.

3.2.8 Tele-medicine and consultation support to doctors at primary and secondary facilities from specialists at tertiary centres.

3.2.9 Nation-wide registries of clinical establishments, manufacturing units, drug-testing laboratories, licensed drugs and approved clinical trials to support regulatory functions of Government.

3.2.10 Access of public to their own health information and medical records, while preserving confidentiality of data.

3.2.11 Programme Monitoring support for National Health Programmes to help identify programme gaps or areas where there are greater challenges.

The challenge of the 12th Plan is how to move towards the larger vision, from the place where the country is today, while respecting the different levels of subjective and objective readiness of stakeholders within the health system and in terms of available health technologies. To facilitate the transition, the information processes and systems existing in NRHM should be reviewed, in order to make the shift to the proposed new arrangement as smooth as possible.

3.3 The 12th Plan should, therefore, aim to achieve the following:

3.3.1 The MoHFW, in consultation with the Department of Information Technology, should mandate, in a participatory and scientific way, the data definitions, data standards, data quality requirements and standards of interoperability, which all publicly financed applications of information technology in the health sector must necessarily subscribe to. A certification and monitoring mechanism should be put in place to check and enforce compliance with the HIS standards. A data policy should also be put in place that would define how long the health data must be stored, in what electronic form and with what back-ups. It should also lay out provisions detailing both the right of access and the right to privacy and security of information. The Central Government would also have to develop procurement policies, which permit open source technologies and which allow arrangements that could support software that is constantly evolving.

3.3.2 The MoHFW should encourage and support the development and deployment of the above mentioned data systems in a decentralized way. There has to be data sharing across systems so that the service providers do not have to re-enter the same data element. For example, if malnutrition data of a block is available on one system and the deaths and incidence of acute respiratory infection are available on another system, it should be possible to collate the data against beneficiary details, and make it accessible to both users in a seamless manner. The approach in the 12th Plan should be a massive expansion of the

integrated use of health informatics by permitting multiple systems with well-defined and regulated standards at each level or institution. This would help the user/institution in accessing information, which is most useful at that level.

3.3.3 Development of such State level and programme specific HIS should be financed primarily under the NRHM. But financing should be conditional on the systems being consistent with the national standards and the national health-care IT architecture. Technical support should be made available to States to articulate the system requirements, develop appropriate procurement procedures and subsequently to test and certify the software for functionality, security and compliance with the national data standards. States that do not have the capacity to build their own systems in any of the areas listed above can choose from a basket of open source applications available with the Central Government and adapt and deploy it for their use. The emphasis on all such software development should be on the use of the information at all levels, and not on information gathering as an end in itself.

3.3.4 The MoHFW should have three national web-portals - one for collecting information related to health management, another for its regulatory and stewardship functions and the third as a public interface on health information and for health promotion. These could be integrated into one, but to prevent information overload and in order to maintain user friendliness, it is perhaps best to keep them as three separate portals with inter-connectivity. These web-portals would be able to communicate with and complement State systems and acquire their information needs from the latter.

3.3.5 The MoHFW should specify its minimum information requirements for policy, for resource allocation and for management purposes and the States should ensure that their systems are designed to deliver this electronically to the web-portals at desired levels of frequency and quality. While the State and District health systems are designed primarily for local action, they should also be able to generate the requisite information and send it in the format required by the Centre.

3.3.6 States should be encouraged to build HIS by upgrading their existing routine data collection systems. Facilities, their staff and other professionals should be trained to handle and benefit from the opportunity offered by better access to data.

3.3.7 Some of the States are ready to make the transition to EMR and they should be encouraged to do so. In case of other States, EMR could be introduced only for in-patients or for certain category of patients who need sustained and portable follow-up records. The emphasis at this juncture should be on generating public health data requirements through IT resources.

3.3.8 The major portion of public investment in the field of information technology in healthcare should go into institutional capacity building for understanding and use of information. Incurring large expenditures on hardware and software without making matching inputs in capacity development and institutionalization would be an error. As part of this, every State should have skilled human resource at both the State and District levels. This would require a mix of those with IT skills and those with public health informatics skills. Statisticians and demographers have a role to play, but without a good grasp of public health informatics as also information technology, they would be unable to contribute to the changing nature of this area of work. State specific centres for health information, either stand-alone, or embedded in existing institutions would be essential, along with District teams of three to five persons for managing information flows and interpreting information. The resources available with Programme Management Units under NRHM could be augmented for this purpose.

3.3.9 The use of ICT in health education, public health status analysis and in the generation of health related research should be expanded. These three functions should be located in appropriate national centres.

3.3.10 Information generated from the proposed HIS should be used at all levels to plan, execute and evaluate performance.

3.3.11 A computer with internet connectivity should be ensured in every PHC and all higher health facilities in this Plan period. Connectivity can be extended to Sub-Centres either through computers or through cell phones, depending on their state of readiness and the skill-set of their functionaries. All District hospitals should be linked by tele-medicine channels to leading tertiary care centres, and all intra-District hospitals should be linked to the District hospital and optionally to higher centres. The availability of “Skype”, and other similar applications for audio-visual interactions, makes tele-medicine a near universal possibility and could be used to ameliorate the professional isolation that health personnel posted in rural and remote areas face.

3.3.12 M-Health, the use of mobile phones to speed up transmission of data and reduce burden of work in reporting, to improve connectivity between providers, and as a vehicle of health communication should be built upon. Services like information on empaneled providers in an area, advice on the nearest provider in the event of an emergency, advice on healthy living and preventive practices need to be made available on one standard number (like 100 for police) in each State. This could be the first level of information before the patient chooses his healthcare service provider.

3.3.13 With respect to governance, the advantages of transparency in Government processes are many and obvious and these should be fully utilized. Not only is it a matter of

compliance with the Right to Information Act but also adds to citizens' participation, trust and goodwill. The opportunities offered by use of IT in ensuring accountability of peripheral staff or in prevention of fraud, as in checking on payments to beneficiaries, need to be carefully evaluated, before it is generalized. At any rate, policing should at best be a minor, collateral function of ICT in the health sector.

3.3.14 All ICTs in health, whether in the States or at the Centre should be professionally evaluated for performance against stated objectives and for their contribution to national health outcome indicators.

3.3.15 Assets created and experience gained in the Integrated Disease Surveillance Project should be used to build a complete HIS outlined above.

Chapter-4: Convergence with other Social Sector Programmes

4.1 Healthy life styles, positive health behaviour and good health practices are socially constructed. However, they are primarily governed by the economic contexts of individuals, families and communities. Studies have convincingly shown that these habits are influenced by environmental factors. Environmental factors are, in turn, affected by the large number of non-health sectors and the planning and actions undertaken therein. Besides, the social, physical, cultural and biological environments of individuals and communities also play a role. Even though, the health sector primarily focuses on the delivery of curative services, an effective healthcare system requires more emphasis on preventive and promotive strategies, and thus a more convergent approach with the active participation of 'non-health' sectors.

4.2 Achievement of the national health outcome indicators would require addressing all the social determinants (distal and proximal) in the context of rapid economic growth and changing life styles, with a focus on the most vulnerable and marginalized. The Alma Ata Declaration of 1978 underlines the significance of addressing 'determinants' of health by including the promotion of food supply and proper nutrition, adequate supply of safe water and sanitation as basic elements of primary health care, which in our administrative context are the responsibilities of different Ministries outside of the MoHFW.

4.3 Electronic (including 'new' media) and print media can play a critical role in informing and empowering communities and individuals on issues relating to health and quality of life. While regulations for media fall outside the domain of the MoHFW, there is a need to encourage the media to carry messages that make healthy living popular, and to avoid the display of unhealthy behaviour like smoking. Similarly, matters relating to taxation of tobacco and alcohol fall outside the domain of the MoHFW, and yet the use of these products has damaging health consequences. To address the health impact of non-health sectors, the MoHFW should play a more proactive and stewardship role. Fortunately, NRHM already provides a convergence framework, which needs to be expanded and made more effective. Outlined below is the strategy to achieve convergent delivery of services under the stewardship of the MoHFW.

4.4 **At the National and State Levels:**

4.4.1 Authorized committees of NRHM like the National Mission Steering Group, Empowered Programme Committee, National Programme Consultative Committee, and State level corresponding institutional mechanisms (State Health Mission and State Health Society) have been envisaged as nodal institutions to undertake convergence initiatives. The NRHM framework would require expansion such that it is also able to address social

determinants that influence the health status of populations. For example, at the State level, the State Health Mission should be integrated with State Water and Sanitation Mission and the District Health Societies with District Water and Sanitation Committees under the Total Sanitation Campaign. The functions and mechanisms of pooling of financial and human resource should also be defined. District health plans should include proposed actions of all Departments that have an impact on the population's health and thus, they may serve as an effective medium of convergence.

4.4.2 Bihar, for example, has developed a model with a 'Human Development Mission' at the State level to include all relevant sectors for convergence in policies and programmes for better health outcomes.

4.4.3 The Model Public Health Act[xxv] assigns stewardship of coordinating public health functions at the State level to a Board of Health under the chairperson-ship of Minister of Health and comprising of Ministers of Education, Social Welfare, Food and Agriculture, Local Self-Government and Public Works, representatives of Medical Associations, representatives of Departments of Planning, Finance and Industry. Similar committees are envisaged at District and Block levels under the leadership of the District Collector, and Chairperson of Panchayat Samiti. These committees can be made more inclusive by co-opting representatives of all departments impacting health, like drinking water. The success of Public Health Act in Tamil Nadu should be emulated by other States.

4.4.4 The impact of policies and programmes of non-health sectors on health remains invisible for long periods. It is, therefore, necessary to take proactive steps to determine the health impact of existing and new policies in sectors which have a bearing on health of populations. The MoHFW should have a dedicated "Health Impact Cell" to conduct such an analysis, (also recommended by Bajaj Committee[xxvi]) and its views should be taken into consideration before framing or modifying policies of non-health ministries which can potentially impact public health. The proposed 'Health Impact Cell' in the MoHFW should also perform Monitoring and Surveillance functions in order to continuously gather information on health impacts of policies and programmes of key non-health Departments. It can harmonize the programme data obtained from the sectors / non-health Ministries with the health impact reports received from the field, such as on water and sanitation related disease outbreaks, and determine gaps in policies as well as in programme implementations. Various sectors should share data, particularly those that are relevant to health outcomes, with the proposed cell. The proposed cell should also be equipped to serve early warnings and coordinate responses to health related emergencies.

4.4.5 Over time, the National Health Policy should be updated to better reflect the concept of social determinants of health and converging economics and development with health. The revised health policy should articulate a more comprehensive definition of health to

include social determinants in the context of rapid economic growth and other public health challenges.

4.5 **District levels and below:**

4.5.1 Local Self Government Bodies which have a Constitutional mandate and are accountable to the people are the natural forums for achieving convergence. Such convergence should translate into quicker and more holistic action for line item subjects falling across different Departments. The correspondence between the responsibilities of Local Self Government Bodies and functions of different line Ministries, as mapped in Table-5, highlight their role as natural forums for convergence in the field. The mandate of Village Health and Sanitation Committee, which have been promoted as the village level institutional forum for convergence, has recently been expanded to include Nutrition and recognized as a sub-committee of the Panchayat. The pattern of PRI functioning varies across States, depending upon the degree of devolution of powers (funds, functions and functionaries) and the population covered. In many States, Panchayats function at the larger revenue village level, but deeper outreach is needed into smaller villages and habitations. States should, therefore, have the flexibility to empower suitable Local Self Government Bodies at any level for convergent delivery of services. The roles and authority of Local Self-Government bodies in securing convergence should be formalized through suitable instructions by the State Governments.

4.5.2 Newly elected members of PRIs, especially women members, need support as they grow into their new roles. There is need to draw an integrated curriculum addressing comprehensive health and health determinants of non-health sectors, and design training courses for Local Self-Government Body functionaries, especially women, across the country. NGOs can play an important catalytic role in capacity strengthening. (Bajaj Committee[xxvii], NRHM mission document[xxviii], HLEG[xxix]). There is scope for granting recognition and instituting awards for achievers on the lines of Nirmal Gram Puraskar under the Total Sanitation Campaign.

4.5.3 Health action plans at District level and below should aim for convergent delivery of services in an integrated manner to the ultimate beneficiary. The District health plans should factor in all determinants of health, and assign roles to each agency for achieving convergence. Joint training of AWWs and ASHAs should be promoted to build camaraderie and clarity on mutual roles and responsibilities. Some areas of convergence between ICDS and health programmes are listed in Box-2.

Table-5: Illustrative List of Ministries and Corresponding PRI Functions Impacting Health

Ministry	R /U*	Constitutional Powers and responsibilities of PRI bodies
Health and Family Welfare	R	Family welfare; Health and sanitation, including hospitals, primary health centres and dispensaries.
	U	Public health; Vital statistics including registration of births and deaths.
Culture	R	Cultural activities.
	U	Promotion of Cultural, educational and aesthetic aspects.
Environment and Forests	R	Social forestry and farm forestry; Minor forest produce.
	U	Urban forestry, protection of the environment and promotion of ecological aspects.
Social Justice and Empowerment	R	Social welfare, including welfare of differently-abled; Welfare of the Scheduled Castes.
	U	Regulation of economic and social development; safeguarding the interests of weaker sections of society, including the handicapped and mentally retarded.
Women and Child Development	R	Women and Child development.
Human Resource Development	R	Education, including primary and secondary schools; Technical training and vocational education; Adult and non-formal education; Libraries.
Agriculture	R	Agriculture, including agricultural extension; Land improvement, soil conservation; Animal husbandry, dairying and poultry; Fisheries.
Consumer Affairs and Department of Food and Public Distribution	R	Markets and fairs; Public Distribution System.
MSME, and Food Processing Industries	R	Small scale industries, including food processing industries; Khadi, village and cottage industries.
Rural Development; Ministry of Drinking Water and Sanitation	R	Rural housing; Roads, culverts, bridges, ferries, waterways and other means of communication; Maintenance of Community Assets; Drinking water; Poverty alleviation programme; Implementation of land reforms, land consolidation.
Tribal Affairs	R	Welfare of the Scheduled Tribes.
Renewable Energy	R	Fuel and fodder; Non-conventional energy sources.
Urban Development	U	Urban planning including town planning; regulation of land-use and construction of buildings; fire services; provision of urban amenities and facilities such as parks, gardens, playgrounds; public amenities including street lighting, parking lots, bus stops and public conveniences; Water supply for domestic, industrial and commercial purposes; Regulation of slaughter houses and tanneries. Burials and burial grounds, cremations, cremation grounds and electric crematoriums; fire services; sanitation conservancy and solid waste management.
Housing and Urban Poverty Alleviation	U	Slum improvement and up-gradation; Urban poverty alleviation.
Water Resources	R	Minor irrigation, water management and watershed development.
Ministry of Power	R	Rural electrification, including distribution of electricity.

* R – Subjects allocated to Panchayats areas under the Eleventh Schedule of the Constitution

U - Subjects allocated to Municipalities under the Twelfth Schedule of the Constitution

Box-2: Some areas of Convergence between ICDS and Health

As an illustration, suggested mechanism to achieve inter-sectoral coordination and convergence with ICDS is given below.

1. Harmonization of ICDS and Health Blocks / reporting units for aligning their activities, monitoring and supervision. This can be followed by dotted line responsibilities so that all nutrition related issues are also reported to 'ICDS supervisors' and similarly to 'health supervisors'. Joint supervision, innovative supervisory format need to be developed. The overall purpose is to determine performance accountability for individual outcome indicators.
2. Roles of grass root workers (ASHA, AWW and ANM) and other functionaries at Block and sub-Block levels need to be clearly delineated. AWC should be the hub of convergent action for health and nutrition, and ASHA should use the AWC as the base for her outreach activities.
3. Development of joint field operational plans for result oriented prevention and treatment of under-nutrition and disease across the life cycle in the community and guidelines on referral.
4. Ensuring effective and efficient operation of Village Health and Nutrition Days in all areas with community monitoring. Maternal and child health cards (Joint ICDS NRHM Mother and Child Protection Cards) to be used as an important tool for Mother and Child cohort tracking, counseling for improved family care behaviour and improved utilization of key health and child care services, with convergence of activities and outcomes.
5. Creating a direct reporting relationship between AWCs and Sub-Centres so that interventions are better synergized and resources are optimized.

Chapter-5: Public Health Management

5.1 The objective of a good public health system is to "fulfill society's interest in assuring conditions in which people can be healthy." The three core public health functions are:
5.1.1 Assessment and monitoring of the health of communities and populations in order to identify health problems and priorities;
5.1.2 Formulation of public policies to solve local and national health problems and to set priorities; and
5.1.3 To ensure that every person has access to appropriate and cost-effective care, including health promotion and disease prevention services, and evaluation of the effectiveness of that care.

5.2 Even though there has been elaborate mention of the above listed roles in various national policies, no single authority has ever been made responsible for performing these roles. As a result, many of these functions do not get performed leading to health system gaps. Given the size and diversity of our country, systems are required to ensure that elemental determinants of health, such as access to nutritious food, safe water, sanitation facilities, medicines and good air quality are provided to all. In addition, information on healthy living and nutrition, prevention of diseases and injuries should also be made widely available. At the same time, unique health challenges in each area should be assessed and monitored using epidemiological tools, and corrective measures taken following problem solving principles. The fulfillment of these essentials of public health management requires a certain degree of expertise, as it does to successfully manage the National Health Programmes. Hence, there is a very real need for a dedicated Public Health cadre (with support teams comprising of epidemiologists, entomologists, public health nurses, inspectors and male Multi-Purpose Workers) and backed by appropriate regulation. (Also see Box-3). The Public Health Cadre should be put in place at State and national levels. Though principally funded by Central sources, it is expected that a matching contribution of 15% would be forthcoming from the States. Key elements of the proposed public health system are explained thereafter.

Box 3: Public Health in the National Health Policy, 2002

1. Ensure adequate availability of personnel with specialization in public health… to discharge public health responsibilities.
2. To entrust public health functions to nurses, paramedics and practitioners of Indian Systems of Medicine with adequate training to enhance outreach.
3. To strengthen and decentralize State level public health systems involving PRIs in Governance and delivery.
4. Narrow the inter-state disparity to Public Health Services by establishing more public health institutions at a decentralized level.

5.3 **Developing and deploying a Public Health Cadre:** A dedicated cadre of public health professionals should be deployed at all levels in the health system starting from the PHCs upwards, in order to perform the Essential Public Health Functions with a focus on communities. The choice of having a separate Directorate of Public Health on the lines of Tamil Nadu or incorporating it suitably in the existing set-up is best left to the judgment of States. Key features of the proposed cadre would include:

5.3.1 A range of health related professionals should be eligible to compete for the cadre, including those who have graduated in the following disciplines: Medicine, Indian Systems of Medicine/AYUSH, Dentistry, Nursing and Pharmacy. The selection process should be robust, fair and transparent and should follow nationally accepted norms for direct recruitment and deployment.

5.3.2 Post-recruitment training to acquire prescribed educational qualification in Public Health Management.

5.3.3 Proper delegation of authority and responsibility, which may make it possible for the cadre to carry out statutory and developmental public health functions to reduce exposure of the community to diseases and improve health and well being.

5.3.4 Suitable remuneration and proper channels for promotion should be ensured. Officers of the Cadre should, however, not be allowed to indulge in private medical practice.

5.3.5 To achieve uniformly high standards of public health all over the country, a Centrally recruited, professionally trained and Constitutionally protected service on the lines of All-India services would be the preferred model for the Public Health Service.

5.4 **Territorial responsibility of Public Health officials:** Public health officials should be made responsible for the health of all people residing in their assigned areas or jurisdictions, including migrants. Their responsibilities would, thus, not be limited to only those who visit or use the public services, but would require them to actively reach out and impact health outcomes in their respective catchments. Further implications of such an approach would be that all data generated in the facility would have a clear denominator on the total population at risk in the jurisdiction of that facility. Public health officials should also be deployed in Municipal areas to assist the Urban Local Bodies in maintaining public health.

5.5 **Training for Public Health functionaries at all levels:** The Centre and States need to develop good quality training programmes for public health functionaries, including the suggested new cadre of public health officers. This training should be standardized and accredited and should incorporate essential public health functions and capacities. It

should also be flexible so that special public health problems of some States and remote areas may also be included. Hence, a variety of training programmes in public health, including Degrees and Diplomas, short term modular training programmes, continuing education and distance learning programmes should be introduced, for all members of the public health teams including doctors, epidemiologists, sanitary inspectors, public health nurses, ANMs, AWWs and ASHAs. Each State should, in coordination with the identified National Resource Centres, develop Schools of Public Health building on already existing capacities in Medical Colleges, State Institutes of Health and Family Welfare and in State Health System Resource Centres.

5.6 **Decentralization of responsibilities by involving Local Self-Government Bodies:** For any public activity to sustain and develop peoples' participation, a more decentralized system linked to local governance mechanisms is essential. This is the fundamental principle of democratic governance. Public health needs many actions from the individual, family and community for their own well-being and the well-being of others in the community. This fact needs to be emphasized so that Local Municipal Bodies and Panchayats take responsibility for public health in their local areas as mandated in the 73rd and 74th Constitutional Amendments. In fact, the Bajaj Committee (1996) had recommended that health services at PHC/Sub-Centre should be entrusted to the PRIs, while the midterm review of 11th Plan had suggested empowerment of PRIs to perform the fucntions entrusted to them. Whatever be the new form that public health management by PRIs takes, they would have to be empowered with administrative and financial powers, and human and financial resources. The PRIs' capacity to play a meaningful role in planning and execution of public health functions would need to be carefully supported. This needs substantial training and resources, but most importantly a willingness to make partners out of people for sustainable improvements in health standards. If community participation and awareness is developed then health consciousness will improve and both prevention and curative techniques may be managed locally and more efficiently. Certain diseases, if detected in their early stages, or if carefully monitored may be treated through local health traditions, including AYUSH therapies. This would also help reduce the cost of modern care which is becoming unaffordable even in rich countries.

5.7 **Health Education campaign:** The state of peoples' health is largely dependent on individual choices (assuming that they are made of one's free will, unhindered by social, economic and cultural contexts, or by genetic misfortunes), in day to day life. It improves through an avoidance of risks, through early care-seeking behaviours and through a general active sense of health consciousness. In order to inform and motivate individuals, families and communities of these behavioural choices, an extensive and sustained health education campaign should be launched, particularly targeting children, adolescents and women in reproductive age groups. The existing campaigns urging the avoidance of risk-inducing behaviour, such as use of tobacco, alcohol and drugs and other campaigns that

advocate valuing the girl child, shunning of sex-selective abortions, adoption of the 'small family norm' should be further strengthened. Home-based newborn care, exclusive and continued breastfeeding are time tested and proven strategies to promote child health and survival, and need to be encouraged on a priority basis. Mass media campaigns on mental illness should be launched, so as to reduce the stigma, promote early care seeking and encourage family members to be supportive and sensitive. To make a lasting difference in the populations' health, behaviour change communication should be employed and should address the entire social community. Innovative use of folk and electronic media, mobile telephony, multimedia tools and Community Service Centres may be made to disseminate messages about healthy living. The medium of mobile phones may be used to disseminate information, manage queries and to act as 'reminders' of items such as immunization dates. The growing network of Community Radio Stations should be encouraged to make programmes on a range of health issues. NGOs can play a very active role in such campaigns, as the success of BRAC, Bangladesh in reducing infant mortality by promoting use of Oral Rehydration Solution has shown.

5.8 **Attention to balanced nutrition:** Nutritional status and habits contribute to a host of diseases across all age groups. While under-nutrition is the underlying cause of more than half the cases of morbidity among children under six, anemia contributes to maternal mortality, and obesity predisposes to cardio-vascular and metabolic disorders. Nutritional issues call for multi-stakeholder strategies, including informing communities on how to maximize nutritional benefits from locally available foods, food fortification and micro-nutrient supplementation. Double fortification of salt with iron and iodine presents a cost-effective and feasible strategy to prevent two of the key nutritional deficiencies in our country. While the Food and Nutrition Board under the Ministry of Women and Child Development is expected to take the lead, all health workers should be sensitized so that they are able to disseminate knowledge on nutrition and healthy living. Extension machinery of Departments, like Krishi Vigyan Kendras of Agriculture, can also play a helpful role in promoting nutritional awareness.

5.9 **Regular, institution based health checks:** Institutions like schools, workplaces and prisons provide opportunities for preventive health check-ups, early detection of disease and for dissemination of information on lifestyle choices and healthy living. Thus, regular health check-ups, including laboratory investigations, of children in schools, employees in workplaces and prisoners in jails should be done, with the Government health machinery taking responsibility for public institutions. Age old principles of healthy living and prevention, including those documented in AYUSH texts should be popularized during such health check-ups.

5.10 **Enhancing community participation in planning, implementation, monitoring and evaluation:** The NRHM has pioneered the concept of community involvement which goes

far beyond decentralized governance to community participation in planning, monitoring and action. This process of communitization includes many distinct strategies- VHSNCs, ASHAs, involvement of local Trained Birth Attendants, practitioners and community based organizations and larger civil society, as well as, community-based monitoring of health services. These have been operationalized and experimented with by different States with mixed, though mostly positive results, thus enhancing the involvement and interest of the community in public health and primary health care. The VHSNCs need to be strengthened and their roles, responsibilities and points of convergence of health related activities better defined. ASHAs would continue to be voluntary workers with performance-based incentives and provide both community-level care (including home-based care for the newborns) and facilitate access to institutional healthcare. Also, the ASHAs would continue to perform one of their core public health functions, which is to mobilize communities into securing their healthcare rights. The institution of ASHA needs to be made more effective through better training, clear articulation of roles based on local health needs, ready availability of supplies, well-defined channels of referral and by enabling her to perform in a larger team under the leadership of the Panchayat. The efforts at community involvement in planning, delivery and monitoring of health services should be actively reviewed and further enhanced using strategies like citizens' charters, patients' rights, social audits, public hearings, establishing grievance redressal mechanisms, etc. NGOs can play a key role in providing support to VHSNCs and PRIs in capacity building, planning for convergent service delivery and effective community based monitoring.

5.11 **Standards, regulations and Acts for public health:** Appropriate standards and regulatory frameworks for health facilities and for determinants of health, such as water, sanitation and food are required. The Model Public Health Act is a useful draft around which States may frame their own Public Health Acts. The experience of Tamil Nadu in prevention of diseases and promotion of health through a Public Health Cadre, and the regulatory mechanisms of a Public Health Legislation deserves emulation. Also required are systems to implement those Acts, and mechanisms to motivate and involve the community in ensuring that the provisions are complied with. One aspect of community-based monitoring could be to conduct public health audits in States, including in major cities and publicize the results to help build public pressure to improve conditions and bridge capacity gaps where needed. The indicators for such audits could include faecal contamination of water, vector density, food safety and safe disposal of solid and liquid wastes.

5.12 **Occupational health:** While safety measures at the workplace are necessary for the safety of workers and adjoining residents, and must be enforced, the workplace also presents an opportunity to introduce and practice promotive behaviours, such as a healthy diet and exercise. Banning of consumption of tobacco in public places is a progressive legislation, but it needs effective enforcement. Regular screening of workers for occupational diseases should be introduced. The regulations relating to workplace safety

can be enforced more effectively if there is greater coordination between District health and labour authorities.

5.13 **Mechanisms for planning and implementation of systems for health management-The Memorandum of Understanding (MoU) approach:** Constitutionally, most aspects of medical and public health fall in the State list. Hence, Central Government has mainly oversight and complimentary funding responsibilities. Given this status, States should have greater flexibility in planning their health programmes as per local disease burden, population dispersion, administrative capacities and structures. However, enhanced delegation has to be matched with increased accountability. The MoU mechanism is a tool for collective priority setting, agreeing on measurable outcomes and their relative weight, flexibility in implementation, accountability based on objective assessment and incentivization of performance. At the heart of the MoU device are agreed upon goals and parameters that are measurable, their relative weight in a composite index and well defined responsibilities of each party. The MoU mechanism has been the instrument for engaging the Central Public Sector Enterprises (CPSE) by respective Administrative Ministries since the 1980s, and has been linked to Performance Appraisal and Performance Related Pay. Target setting in the MoU system follows a rigorous methodology starting with a proposal from the CPSEs routed through their Administrative Ministries, detailed analysis by the Department of Public Enterprises which acts as a facilitator, discussions with and recommendations of a panel of eminent professionals; the consultative process ensures that there is a consensus among parties on the targets finalized for the MoU. The existing Project Implementation Plans (PIPs) under NRHM fall short of the requirement since they do not cover the entire health sector, nor do they have a rigorous monitoring, appraisal or incentive system based on performance against quantitative goals. The MoU approach can be adopted for the health sector, of which the existing PIPs could be one element. The MoU allows for a modular approach by including a set of obligatory parameters, and optimal parameters which would be State specific. In addition, a third type of reform parameters can be added, achievements wherein would earn the States award points and entitle them to a substantial increment on the sanctioned resource envelope. System-wide MoUs between Centre and States would allow a lot of flexibility to the latter to develop their own strategies and plans for delivery of services, while committing the States to quantitative and verifiable and mutually agreed upon outputs and outcomes. States can be incentivized for achieving some or all of the MoU parameters through an Additional Central Assistance. In order to build sufficient credibility for the MoU mechanism, approvals of the competent authorities should be taken in advance.

Table-6: Illustrative List of Items for Inclusion in MoUs with States

Obligatory Parameters

1 Public health:

1.1 Align jurisdiction of health facilities along those of the development machinery.

1.2 Put in place a Public Health Cadre, whose officers shall be responsible for detecting public health problems, framing strategies for their correction and for implementing these strategies.

1.3 Enactment of Public Health Act using TN Act and Model Public Health Act, which have a strong focus on water and sanitation, as templates, but adding components relating to other social determinants of health, such as nutrition, housing, air quality, smoking, alcoholism, mental health, road traffic injuries, and entitlement to emergency care.

2 Human Resource:

2.1 Develop Community Health Centres (CHCs) into para-medical training schools; and district hospitals into medical colleges in districts without any medical college.

2.2 Encourage career progression of ASHAs and AWWs into ANMs.

3 Convergence with ICDS:

3.1 Synergize the working of ASHAs and AWWs by declaring AWCs as the base station of ASHAs, and Sub-Centres as the HQ of ICDS supervisors.

4 Nutrition:

4.1 Ensure that only double fortified salt (Iron-Iodine) is sold through PDS in the State.

5 Medicines:

5.1 Create a Special Purpose Vehicles on the lines of TNMSC with open, tender based procurement.

5.2 Mandatory availability of Essential drugs under the National List of Essential Medicines in all health facilities.

5.3 Opening of Jan Aushadhi stores in all Block Headquarters.

6 Mandatory practice of Standard Treatment Guidelines and prescription of generic medicines listed in the National List of Essential Medicines in all Government facilities. Mandatory audits of medical prescriptions by faculty of medical colleges.

7 Building a Health Information System based on universal registration of births and deaths, which links with information systems of ICDS, NRHM, and Hospital Information system to give accurate picture of health of population.

8 Regulation: Empowering the public health functionaries under relevant laws, namely PCPNDT Act, Food act, and Drugs and Cosmetics Act.

9 AYUSH: Bridge courses for AYUSH practitioners and their legal empowerment on the lines of Tamil Nadu for permitting their practice as Primary Health care physicians.

10 Take steps to provide Family Planning services and frame policies for population stabilization.

11 Roll-out of Universal Health Care for all residents to an Essential Health Package.

Optional Parameters:

1. Governance structure for Public Health Cadre and its interface with Chief Medical Officer and health directorate.
2. Norms for opening of health care facilities using a time to care approach.
3. Tenures and transfers policy.; Staffing norms for Sub-Centres.

Chapter-6: Strengthening Tertiary Care

6.1 'Tertiary' care refers to more specialized care and, therefore, involves knowledge, skills and resources that are typically available at regional or national levels, as opposed to being amenable to replication in every local context. The current availability of tertiary care services is only a very small fraction of what is actually needed in the country. Of the available tertiary care facilities, most are concentrated in large urban areas, with a large share represented by the private sector (Table–7).

6.2 The density of hospital beds can be used to indicate the availability of in-patient services. India has 9 hospital beds per 10,000 people (including in-patient and maternity beds) against a WHO recommended norm of 30. The ratio of Government hospital beds to population in rural areas is fifteen times lower than in urban areas.

6.3 It is the private sector, however, which with 49% of the total number of hospital beds is managing to provide 60% of all in-patient care and 78% of all out-patient care in the country (Table-7). This indicates low utilization of the public sector, and a rather efficient utilization of private beds and facilities. It also offers an opportunity to enhance services through more efficient capacity utilization. Notwithstanding efforts at prevention and primary care, tertiary care services comprising specialized in-patient and out-patient services would be required to address needs of referred, complicated, and uncommon cases. Efficient tertiary care services are also required to meet our national health outcome indicators.

Table-7: Beds and Utilization of OPD/IPD services in Public and Private Facilities

	Public	Private	Source
Beds	51%	49%	NCMH (2005)
	62%	38%	NSSO, 60th round (2004)
Out-Patient Use	22%	78%	World Health Report (2010)
	30%	70%	NSSO, 60th round (2004)
In-Patient Use	40%	60%	NSSO, 60th round (2004)
	44%	56%	World Health Survey- India (2003)

6.4 Increasing awareness, rapid advances in technology, wider accessibility and better paying capacity are translating into rising demand for healthcare services by some. With the launch of Government Health Insurance Schemes in some States, and the proposed roll-out of Universal Health Care, financial barriers in accessing tertiary care by the more marginalized are also expected to reduce. Tertiary healthcare services, therefore, need to be expanded, with strategies to ensure their cost-effectiveness, professional efficiency and universal accessibility.

6.5 As creation of new tertiary care facilities would be both time and capital intensive, the strategy should be to focus on existing facilities for improved quality of care, optimal utilization of existing capacities, in-situ expansion, addition of multi-speciality units and making AYUSH services available. Given India's mixed economy, as also the large-scale deployment of health human resource and existence of bed capacity in the private sector, the goals of tertiary care would necessarily have to involve combined efforts from the public and private sectors. It should, however, be ensured that the interests of the common person with low paying capacity are safeguarded. The following specific recommendations are made in this regard:

6.5.1 Teaching hospitals represent the most specialized centres for medical care in a region. They also represent the pinnacle of the health-care pyramid, which is composed of tertiary non-teaching institutions, secondary and primary facilities and community-based care systems. The health-care system would work best if there were cross-linkages between institutions positioned at different levels of the healthcare pyramid, in any given region. Thus, cases would be detected and treated at the lowest feasible level, but with requisite support from the tertiary care facilities; correspondingly, joint efforts would be made towards developing skills of providers at the lowest levels of the pyramid and to underscore the value of prevention and early detections of prevalent health problems. For example, if a region is experiencing more than the average number of cases of cancer, medical colleges should commission epidemiological studies to find out its determinants and also conduct Continuing Medical Education programmes for primary providers so that most cases are detected and managed at these levels. Currently, teaching hospitals do not have any organic linkages with other components of the health care system leading to lost opportunities and suboptimal utilization of existing resources. Comprehensive Rural Health Services Project at Ballabgarh run by AIIMS is an exception, and is a good example of a primary care-teaching facility linkage, which should be broadened. Such linkages should be built in the 12th Plan so that all health care facilities in a region are organically linked with each other, with medical colleges providing the broad vision, leadership and also opportunities for skill up-gradation. The potential offered by tele-medicine for remote diagnostics, monitoring and case management should be fully realized.

6.5.2 Existing hospitals like District hospitals, Railway hospitals, Armed Forces hospitals, Employees State Insurance hospitals and AYUSH teaching colleges and hospitals should be developed into effective tertiary care centres with strengthened laboratory and diagnostic services and foolproof medical waste management systems. Making AYUSH therapies available and encouraging their use, particularly for non-communicable, degenerative and geriatric conditions, is likely to lower costs, while increasing the choice of therapies.

6.5.3 The Government medical colleges should be strengthened for the dual purposes of creating a larger pool of doctors and other health workers that can be deployed at PHCs and CHCs and also for providing super specialty healthcare to the population in that region. Up until the year 2011, 26 medical colleges have been supported under Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) and 46 State Government owned medical colleges have been given assistance for the strengthening and up-gradation of facilities needed to start new PG Departments under the Centrally Sponsored Scheme of Up-gradation of State Government Medical/Dental Colleges. An additional 80 medical colleges should be strengthened during the 12th Plan to increase their capacity for teaching, patient care and research. As a result, nearly 90% of all Government medical institutions would have been upgraded. On similar lines, other medical colleges in the private or voluntary sector should also be encouraged to upgrade and strengthen their facilities.

6.5.4 In the Government sector, four new AIIMS like Institutions (ALIs) may be established during the 12th Plan period in addition to the eight already approved ones, which should be completed and made operational during the Plan period. The selection of regions for developing these facilities should be based on suitable geographical location, available physical infrastructure, ease of connectivity with State medical colleges and district hospitals, as well as local health indicators and disease burden. Existing teaching institutions can be strengthened to develop as national centres in disciplines such as Cancer, Arthritis and musculo-skeletal diseases, Child Health, Diabetes, Mental Health and Behavioural Sciences, Bio-medical and Bio-Engineering, Hospital and Health Care Administration, Nursing Education and Research, Information Technology and Tele-Medicine and Complementary Medicine.

6.5.5 For optimizing the functioning of existing and proposed institutions, sound governance and management systems based on principles of autonomy and accountability should be evolved. Adequate flexibility should be accorded to the management, especially in financial and personnel matters, so that they are able to attract and retain the best talent. Suitable incentives linked to assigned duties should be devised.

6.5.6 Given the gap in need and availability of tertiary care facilities and to ensure maximization of benefits from limited public funds, public facilities should be encouraged to part-finance their recurring costs by mobilizing contributions (including under Corporate Social Responsibility) and self-generation of revenues. Under the recently drafted Companies Bill, 2011, the Government has proposed that companies should earmark 2% of their average profits of the preceding three years for Corporate Social Responsibility (CSR) activities. CSR is mandatory for CPSE, the guidelines of which issued by the Department of Public Enterprises include health service as one of the eligible components. To avail of this opportunity, all publicly funded health care facilities should be allowed to receive donations, and funding from companies under their Corporate Social Responsibility head. Adequate

safeguards have to be built in so as to ensure 'no-frills funding' and that donations are not used to influence the policies or practices of healthcare facilities in any way. Tamil Nadu has issued guidelines[xxx] to authorize Medical Officers in charge of particular healthcare facilities to enter into MoUs with interested persons to receive contributions for capital or recurrent expenditure in the provision and maintenance of facilities. On available models for self-generation of revenues, the option for cross-subsidy in line with the Aravind eye care system should also be explored (see Box-4). Tertiary care facilities would have an incentive to generate revenues if they are provided an autonomous governance structure, which allows them flexibility in the utilization of self-generated resources within broad policy parameters laid down by the Government.

Box-4: Cross subsidy model of the Aravind Eye Care system

In this model, infrastructure (ambience, services, etc.) is established to attract high paying clientele that in turn subsidize patients who can barely afford the marginal costs. The Aravind Eye Care System has successfully implemented this model in eye care. Its network of hospitals examines 2.5 million patients annually and performs 300,000 sight restoring procedures. 60% of the services are provided free of cost or at a steeply subsidized rate.

6.5.7 Public-Private Partnerships (PPP): PPP offers an opportunity to tap the material, human and managerial resources of the private sector for public good. In a PPP, "the Government provides the strength of its purchasing power, outlines goals for an optimal health system, and empowers private enterprise to innovate, build, maintain and/or manage delivery of agreed-upon services over the term of the contract"[xxxi]. An encouraging development is the inclusion of health, education and skill development (in addition to solid waste management, water and sanitation management, which existed earlier) in the infrastructure sector for Viability Gap Funding, without annuity provisions, up to the ceiling point of 20% of total project costs under the scheme[xxxii], to support Public Private Partnerships. As a result, private sector would be able to propose and commission projects in the health sector, such as hospitals, medical colleges even outside metropolitan areas, which are not remunerative per se and claim up to 20% of the project cost as grant from the Government to cover the gap in financial viability of the project. Some potential models for PPP in healthcare, covering PHCs, diagnostic centres and hospitals have been identified and can be considered[xxxiii]. The PPP arrangements must, however, adequately address issues of compliance with regulatory requirements, observance of Standard Treatment Guidelines and delivery of affordable care. An additional model for consideration is the not-for-profit Public Private Partnership (NPPP) being followed in the International Institute of Information Technology (IIIT), which have been set up as fully autonomous institutions, with partnership of the Ministry of Human Resource Development, Governments of respective States and industry members. PPP and Not-for-Profit PPP models can be considered to expand capacities for tertiary care in the 12th Plan.

Chapter-7: Human Resources for Health

7.1 Trained and competent human resource is the foundation of an effective health system. India produces 30,000 doctors, 18,000 specialists, 30,000 AYUSH graduates, 54,000 nurses, 15,000 ANMs and 36,000 pharmacists annually (HLEG). Yet, geographical and rural-urban imbalances exist in training and in the availability of this resource. Medical colleges are unevenly spread across the States, and also present wide disparities in the quality of education. Only 193 of the 640 Districts have a medical college, while the remaining 447 Districts do not have any medical teaching facilities. Against a WHO recommended[xxxiv] norm of 25 health workers (doctors, nurses, midwives), there are only 19 health workers (doctors-6, nurses and midwives-13) per 10,000 people in India. Additionally, there are 7.9 lakh AYUSH practitioners registered in the country (approx 6.5 per 10,000). The urban density of doctors is 4 times, and that of nurses 3 times the rural density[xxxv]. Such a skewed distribution results in large gaps in demand and availability, particularly for Governmental healthcare facilities, which are represented below.

Table-8: HRH estimates for Healthcare Services in Public Sector

Cadre	Currently serving in Rural Public Sector*	Current shortage* (rounded off)	Estimates of total required for 2020 #
ANM	1.9 lakh	15,000	7.42 lakh
HW (male)	52,000	94,000	4.4 lakh
Nurses	58,450	13,700	14.9 lakh
Doctors	25,800	6,148 $	3.67 lakh
Specialists	6781	11,361	2 lakh
Managerial, non-clinical	15000** / 12762#	NA	1.6 lakh

Source : *RHS 2010, #HLEG estimates; ** Working Group on NRHM

$ The shortage figure for doctors relates to doctors at PHCs.

7.2 The 12th Plan should aim to expand facilities for Medical, Nursing and para-medical education, create new skilled health-worker categories, enable AYUSH graduates to provide essential health care by upgrading their skills in modern Medicine through bridge courses, establish a management system for human resource in health to actualize improved methods for recruitment, retention and performance, put in place incentive-based structures, create career tracks for professional advancement based on competence, and finally, build an independent and professional regulatory environment.

7.3 **Skilled health workers:** Our health system needs four basic categories of human resource in sufficient numbers and quality. Under each of these four categories, there is scope for expanding the existing nature and functions of designated professionals for that category, and also for increasing the depth of training / re-training to make it relevant to

national health goals. The four categories and the required nature of expansion in their scope are listed below.

7.3.1 **Medical Graduates**: Undergraduate teaching should aim to produce clinicians who can independently manage the case load in a primary care facility. AYUSH doctors can be trained through short bridge courses to manage essential health care in primary care settings. Doctors deployed in primary and secondary health facilities need to be multi-skilled, so that they can manage day-to-day conditions relating to obstetrics, anesthesia, psychiatry, paediatrics including neonatology, and trauma care.

7.3.2 **Medical and Surgical Specialists:** The discipline of Family Medicine should be introduced in all medical colleges so that qualified specialists in this discipline can effectively manage most of the medical problems encountered at the primary level, and referral to specialists occurs only when necessary. Such recommendations have been made earlier too by the Mehta Committee in 1983[xxxvi].

7.3.3 **Para-medical workers for health facilities:** Studies suggest that in primary care, appropriately trained nurses can produce as high a quality of care, and achieve as good a health outcome for patients, as doctors[xxxvii]. Para-medical and allied healthcare professionals constitute the base of the pyramid and are required in adequate numbers for optimal performance of teams. The issues in question are shortages, absence of many required cadres, and under-utilization of their potential. For example, in the context of hospitals, a survey by FICCI in June 2011 has identified five skill-sets that need immediate attention, namely Dialysis Technician, Operation Theater /Anesthesia Technician, Paramedic, Lab Technician, Patient Care Coordinator cum Medical Transcriptionist. The existing para-medical human resource need to be suitably trained, clinically empowered and deployed to enable optimal utilization of their services. New categories of para-health workers, such as Physicians' Assistants (as also recommended by Shrivastav Committee in 1975) and the Bachelor of Rural Health Care (BRHC, recommended by HLEG), nurse midwifery practitioner, multi-skilled health workers for peripheral institutions, physical therapists, mental health therapists, geriatric assistants, clinical psychologists, psychiatric nurses, occupational therapists and counselors need to be introduced. Directed investments in health sector can generate considerable employment in the 12th Plan.

7.3.4 **Public Health professionals and community-based workers:** Public health workers, such as public health nurses, inspectors, epidemiologists and laboratory technicians, and also community-based workers like ASHAs and AWWs need to be better trained. In areas of regulation, instead of continuing with separate cadres for each category, public health professionals can be trained to enforce all health related laws, like Clinical Establishments Act, FSSA, Drugs and Cosmetics Act and the Public Health Act. They may also be trained to manage PPPs and Third Party Administrators for UHC.

7.4 **Expansion of Medical, Public Health, Nursing and paramedical education:** The strengthening of existing institutions, and also the creation of new ones, in terms of infrastructure and faculty, is required for training of new health workers and re-skilling of existing human resource. For this, a feasible and cost-effective option is to upgrade existing District hospitals and CHCs into knowledge centres, where medical and para-medical teaching and refresher courses can occur side-by-side with patient care. In addition, National and State Institutes of Health and Family Welfare, State and District level training institutions and distance learning centres need to be strengthened to conduct refresher courses for in-service medical and para-medical personnel. Distance learning can help make optimal use of limited teaching faculty and expand the reach of teaching programs. Linkages should be established with health related vocational courses at 10+2 level. Furthermore, Centres of Excellence need to be created for training public health professionals in epidemiology, entomology and microbiology for effective disease surveillance, disease outbreak investigations and for effectively responding to outbreaks, epidemics and disasters. The target should be to build at least one medical training centre in each District, and one para-medical training centre in each sub-division. Concurrently, each District hospital should be attached to a medical college for professional guidance, in-service training, referral support and exposure of students to real-life conditions. Selection of candidates from remote areas for professional/technical education and their subsequent deployment in public health programmes in the same areas offers immense potential of continued retention and motivated performance. A recent study by NHSRC has found that geographical, ethnic and community affiliations, among other factors, play a key role in retention of doctors in rural areas[xxxviii]. The expertise available with NGOs for building capacities of health functionaries should be tapped, wherever relevant. The private sector with its considerable medical infrastructure, should be encouraged to run courses to train para-medical and allied health professionals, for which a transparent and efficient regulatory system should be put in place. Courses run by NGOs and the private sector, after ensuring regulatory compliance, should be accorded professional certification, which should be valid throughout the country, at par with those from Government run institutions. In addition, the following have been proposed:

7.4.1 Setting up 30 new medical colleges with public financing, preferentially in States with larger gaps. This step alone would increase Under-Graduate medical seats from 41,569 to 63,000 and Post-Graduate seats from 20,868 to 31,000.

7.4.2 Strengthen State Government Medical Colleges and Central Government Health Institutions with the triple objective of increasing the intake of Under-Graduate and Post-Graduate candidates by 20,000 and 10,000 respectively, providing super-specialty and other specialized services for patient-care at these tertiary care centres, and setting up degree programmes for Nursing and para-medicines within these institutions, in case none exists.

7.4.3 Establish Centres of Excellence for Nursing and Para-medicine in every State. These Centres would impart education in specialized fields, offer continued professional education and have provisions for faculty development and research.

7.4.4 Setting up paramedical education courses in 149 Government medical colleges, in addition to initiating paramedical institutions in 26 States.

7.4.5 Strengthening and up-gradation of Government Pharmacy Institutions.

7.5 **Promoting Health Universities for inter-disciplinary learning:** The concept of Universities of Health Sciences was suggested by the Bajaj Committee for generating a physical and academic environment where different faculties related to the Health Sciences could interact and provide a model for education and training. By providing facilities for training of different categories of health professionals, such Universities can foster inter-professional camaraderie and collaboration. They can also provide affiliation to different medical, dental and para-professional colleges, as well as to Graduate colleges, which give degrees in health sciences, in the State. In addition, Health Science Universities have the potential to develop as centres of excellence in interdisciplinary subjects such as environmental sciences, health systems and health services management, health economics, and social and behavioural determinants of health, amongst others.

7.6 **Central Cadre of Medical Teachers:** To provide a continuous stream of qualified teachers for serving in national teaching institutes and State medical colleges, a national cadre of medical teachers should be considered. Officers of this cadre would be nationally recruited, deployable both in apex institutions of learning like AIIMS, Post Graduate Institute of Medical Education and Research (PGIMER) and Jawaharlal Institute of Post Graduate Medical Education and Research (JIPMER), and also in regional and State medical colleges and high focus districts to build teaching capacities. Adequate incentives for service in State and regional teaching institutions should be provided. This is expected to build and replicate high levels of competence, commitment and professional culture of standards prevalent in the national institutes. While AIIMS, PGIMER and JIPMER should be the central hubs where training of new recruits is provided, the faculty should have an opportunity for ‘central’ postings at mid-career level. This would benefit their own upskilling in select areas of advancing knowledge and, at the same time, bring the rich learning of regional experience into the ‘central’ institutes, which remain far from the realities of the 'field'. Teaching, training and practice patterns in all of the institutions would benefit as a result. The faculty in National Institutes would also be incentivized to stay and serve, if they see themselves as part of an All-India cadre.

7.7 **New category of mid-level health workers through a 3 year training programme:** This new category of health-workers may be provided an integrated training in public

health, modern system of Medicine and AYUSH as relevant to primary health care, over a three-year period after class XII. These workers can competently provide essential primary care in under-served settings, while at the same time, increasing the productivity of physicians by assisting them in the more well-resourced areas. Details of their functions, qualifications, designations, placement and career tracks within the health system need to be worked out. The MoHFW and the Medical Council of India have recently expressed a preference for B.Sc. (Community Health) as the new qualifying degree programme instead of BRHC. This new category offers an opportunity to break through professional silos, develop competencies that draw upon different but complementary streams of knowledge and help generate employment while meeting health needs of under-served populations.

7.8 **Orienting medical education to the needs of society:** As already enunciated in the National Health Policy[xxxix] of 2002, the curriculum for medical education needs to be examined, so as to equip graduates to independently function as general practitioners. Medical curriculum should emphasize hands-on skills, while sensitizing the students to issues such as mental health, social determinants of health, essential medicines and generics, national health programmes, health informatics, medical ethics and equity. Public health as a discipline should be introduced in all medical colleges and opened to graduates from diverse background, such as AYUSH, or those from social and management sciences background. On the lines of the IITs and the IIMs, medical colleges should also mentor graduates and encourage them to take on entrepreneurship roles, and also provide social service by working in those parts of the country that need medical facilities. The case of midwife entrepreneurs in China is an illustration of the creative use of markets to provide essential services in remote areas, and in a sustainable manner.

7.9 **Integrating of non-qualified practitioners into the health system after suitable training:** A peculiar feature of India's healthcare system is the presence of a large number of non-qualified practitioners, such as traditional birth attendants (dais), compounders. As per law, they are not authorized to practice Medicine, or to prescribe drugs. Nonetheless, they address an unfulfilled demand for ambulatory care, particularly in rural areas. The challenge is to get them into the formal system. An option is to give these practitioners, depending on their qualifications and experience, an opportunity to get trained and integrate them into the health work-force in suitable capacities as Pharmacists, Physician assistants, ANMs, etc.

7.10 **Mandate Continuing Medical Education to retain license to practice:** While science is rapidly expanding, human memory is limited. This calls for periodic revision of knowledge, and making an effort to keep abreast with best practices in the discipline. While this is true of all disciplines, medical care needs greater caution, since human lives may be at stake. Hence, many countries have mandated Continuing Medical Education as a pre-condition to retain the license to practice. Similar efforts should be attempted in India.

Simultaneously, programmes for Continuing Medical Education should be strengthened and expanded. Agencies such as the National Academy of Medical Sciences can play a useful role in providing good quality teaching material and also help in its dissemination, by using networks within the National Knowledge Network.

7.11 **Better Information on Human Resource in Health:** Good health planning requires high quality data. Accurate data on the exact numbers and distribution of human resource for health in the country is, however, not available. For example, Registers of Medical Practitioners maintained nationally and in States do not have systems to delete names of deceased members, or of those who have emigrated. Professional Councils should, therefore, update their records on Human Resource. The MoHFW should exercise due vigilance to ensure the same.

7.12 **Ensuring adequate human resource for key tasks:** Strengthening of the health system would require leadership at all levels. The current deployment of human resource needs to be reviewed for possible re-deployment into priority areas. The professional leadership of national programs may be familiarized with the latest knowledge in Public Health management.

7.13 **Human Resources Regulatory Functions:** This is a core Government function and should be performed well. There exist legislation with respect to licensing of medical professionals with a view to control their entry into the market. Important among these laws are The Indian Nursing Council Act, 1947; the Pharmacy Act, 1948; the Indian Medical Council Act, 1956; the Indian Medicine Central Council Act, 1970; and the Homeopathy Central Council Act, 1973. Statutory regulatory councils for doctors, dentists, nurses, pharmacists, and practitioners of Indian systems of Medicine and Homeopathy have been established with a view to monitor standards in professional education, promote training and research activities, and oversee qualifications, registrations and professional conduct. Each Statute establishes a Central Registry for individuals certified to practice in their respective field. Councils prescribe standards of professional conduct and determine which actions amount to professional misconduct. The creation of an overarching regulatory body, the NCHRH, is likely to bring objectivity and professionalism, and to also encourage cross-disciplinary teaching. Given the common mission of AYUSH and modern systems of Medicine of promoting health, and for reasons of optimal utilization of resources, there should be a single regulatory authority for modern systems of Medicine and AYUSH. Its governance structure should be democratic with equal representation from AYUSH systems. The Department of AYUSH, however, was of the contrary view and favored a separate Commission for AYUSH on grounds that the requirements of AYUSH sector were different from the health sector. The Steering Committee believes that a common NCHRH is in the best interests of development of competent human resource that combines the modern and Indian Systems of Medicine in the country.

7.14 **Norms for Staffing of Public Facilities:** The 11th Plan document had proposed replacement of population-centric norms for the provisioning of health infrastructure with more flexible norms. However, the same could not be implemented. The 12th Plan should adopt a flexible approach on the setting up of health facilities, leaving the decision to States. The States may base their decision on a host of contributing factors, including geographic spread of population, nature of health problems, availability of health care facility in the vicinity, local needs and availability of transport network. An alternative criteria for setting up of health care facilities could be the "time to care approach", based on time taken by people in the catchment area to reach the facility. For example, a travel time of 30 minutes to reach a primary healthcare facility would be a reasonable goal. In terms of staffing norms, healthcare facilities should have a basic core staff, with provisions for additional hands in response to an increase in case load, or the range of services provided. Indian Public Health Standards (IPHS) need to be revised accordingly. Besides RCH and communicable diseases control activities, the States should also ensure that Sub-centres become outreach points for active interventions in the area of non-communicable diseases. Accordingly, individual States should work out the staffing norms of various healthcare facilities within the NRHM funding envelope. Individual States can choose from a range of staffing options, including those suggested by the Working group on NRHM and by the HLEG, both options operating within the NRHM funding envelop.

7.14.1 The **Working Group on NRHM** has recommended one Community Health Worker (CHW) per 1000 persons; one male and one female health worker in every Sub-Centre, with a second female worker limited to only those Sub-Centres where midwifery (delivery) services are regularly provided. The Working Group has suggested that the Central Government fund one female worker and one male worker, as also the second female worker in Sub-Centres which are delivery points. If beyond this a second ANM is required, then the State Government should bear the cost.

7.14.2 The **HLEG**, in contrast, has recommended 2 CHWs per 1000 population, and two female workers, a male worker and a BRHC graduate in every Sub-Centre. Their reasoning is that the Sub-Centre could become an outreach point for active interventions to reduce the non communicable disease burden in the catchment areas.

7.15 **Management system for human resource in health:** The shortage of health personnel against the requirement across the country as per the Bulletin of Rural Health Statistics, 2010 is 63% for specialists, 19% for doctors and 7% for ANMs. Reasons for the same are attributed to delays in recruitment and to postings not based on work-load or sanctions. Though most of the public health workers and medical officers are recruited, deployed and managed by States, the Central Government can suggest model human resource policies and minimum standards of workforce management for better retention, and performance. These guidelines should include the following strategies:

7.15.1 The IPHS should be taken as the guiding principle for sanctioning posts, though the

actual posting may depend on caseloads.

7.15.2 Recruitment should be decentralized with a quicker turnaround time and preference must be given to residents of the region of proposed deployment.

7.15.3 Fair and transparent system of postings and timely promotions.

7.15.4 Financial and non-financial incentives (like preferential eligibility for post graduate courses, promotions, subsequent choice of postings) for performance and service in remote areas.

7.15.5 Measures to reduce professional isolation by preferential access to continuing medical education and skill up-gradation programmes, as well as back-up support on tele-medicine (internet or mobile based) and by networking of professionals working in similar circumstances.

7.15.6 Measures to reduce social isolation by investing in processes that bring community and providers closer together.

7.15.7 Completion of training of ASHAs and retraining of the existing cadre of workers as Male Multi-Purpose Workers, AWW and ANMs, to make them relevant to local needs, and for their own upward mobility.

Chapter-8: Regulation of Food, Drugs, Medical Practice and Public Health

8.1 Regulation seeks to ensure quality and accountability, protects consumers, and controls costs that may be caused due to distortions in the market. Thus regulation of food, drugs, medical practice and public health is fundamental to the building of health systems that recognize the importance of addressing social determinants of health, in addition to providing curative services. Users should feel assured of quality and ground rules should exist for any engagement with private players.

8.2 **Regulation of Drugs:** Issues in regulation frameworks for drugs relate to quality, price and the need to mandate rational prescriptions. The following recommendations may help in resolving some of the issues above:

8.2.1 As recommended by the Mashelkar Committee[xl], a Central Drug Authority needs to be set up to enable centralized issuance of licenses for manufacture and sale of drugs. Once this Authority is in place, suitable strengthening of its infrastructure and laboratories should be done.

8.2.2 E-governance systems should inter-connect all licensing and registration offices and laboratories; GPS based sample collection systems and online applications for licensing should be introduced. A repository of approved formulations at both State and national levels should be developed.

8.2.3 The MoHFW should ensure that Fixed Dose Combinations (FDCs) and irrational drugs are weeded out in a time bound manner.

8.2.4 Pharmaco-vigilance, post-marketing surveillance, Adverse Drug Response Monitoring, quality control, testing and re-evaluation of registered products should be accorded priority under drug regulation.

8.2.5 The Drugs and Cosmetics Act should be amended to include medical devices incorporating provisions for their risk-based classification, clinical trials, conformity assessments and provisions for penalties.

8.2.6 The Government should mandate that labels on drugs and food fully disclose all its ingredients.

8.2.7 Use of generic names or the International Non-proprietary Name (INN) should be made compulsory and encouraged at all stages of procurement, distribution, prescription

and use, as it contributes to a sound system of procurement and distribution, drug information and rational use at every level of the health care system.

8.2.8 A National List of Essential Medicines should be made operational with the introduction of Standard Treatment Guidelines, including for AYUSH. It should be printed and supplied to all facilities at regular intervals. These guidelines should incorporate generic prescriptions. Implementation of Standard Treatment Guidelines in the public and private sectors is a priority to address drug resistance, promote rational prescriptions and use of drugs, and contain health care costs.

8.2.9 The National Pharmaceutical Pricing Authority should be transferred from the Ministry of Petrochemicals to Health, since the subject matter of price control of drugs is aimed at making medicines accessible to patients. While the case for cost regulation of all medicines on the Essential List is unmistakable, the cost should be fixed with reference to the lowest priced formulation in the market, instead of that with the largest market share as has been proposed in the draft National Pharmaceuticals Pricing Policy, 2011.

8.2.10 In consultation with concerned Ministries, local production of bulk drugs and vaccines should be encouraged to build “drug security” in the country. The MoHFW should identify and get compulsory license issued for patented expensive drugs required for public health programmes, and encourage their manufacture in the country.

8.2.11 Drug manufacturers should be encouraged to raise production standards to comply with WHO Good Manufacturing Practices (GMP); procedures for obtaining WHO GMP certification should be streamlined to make it time-bound and predictable.

8.2.12 Pharmaceutical marketing and aggressive promotion also contributes to irrational use. There is a need for a mandatory code for identifying and penalizing unethical promotion on the part of Pharma companies. The Food and Drugs Administration (FDA) of the US has mandated strict regulations to curb unethical promotions. These include mandated disclosure by Pharmaceutical companies of the expenditure incurred on drug promotion, ghost writing in promotion of pharma products to attract disqualification of the author and penalty on the company, and vetting by FDA of drug related material in Continuing Medical Education. To avoid medical conflicts of interest, the US Government is proposing[xli] to bring in a law that would require drug companies to disclose the payments they make to doctors for research, consulting, speaking, travel and entertainment. Such practices can be replicated in India.

8.2.13 The MoHFW should encourage public and patient education in the appropriate use of drugs, particularly antibiotics and anti-microbials, since it would benefit individual patients and public health.

8.3 **Regulation of Food:** The Steering Commmittee recommends the following:

8.3.1. The Food Safety and Standards Authority of India (FSSAI) should strive to improve transparency in its functioning and decision making.

8.3.2 Bio-safety should be an integral part of any risk assessment being undertaken by FSSAI.

8.3.3 Food surveys should be carried out regularly and their results made public. An annual report on state of food safety should also be published.

8.3.4 Policies to promote production and consumption of healthy food should be developed. Sale and consumption of unhealthy food should be discouraged in schools.

8.3.5 Sufficient focus on food safety issues is lacking in the Medical and Nursing curriculum. Hence, an appropriate module on food safety and bio-safety needs to be introduced.

8.4 Regulation of Medical Practice:

8.4.1 Rights of patients to rational treatment of good quality and reasonable cost should be protected. Suitable mechanisms need to be worked out for this. Medical audits should be undertaken to assess extent of compliance with Standard Treatment Guidelines, and habitual violations of guidelines should attract disciplinary action. There is a need to revise and strengthen the existing regulatory mechanism for medical practice to prevent willful negligence and malpractice.

8.4.2 All clinical establishments need to be registered and regulated for compliance with prescribed minimum standards of facilities and services. Legislation to this effect is in force in only in a few States, namely Andhra Pradesh, Maharashtra, Delhi, Madhya Pradesh, Manipur, Nagaland, Orissa, Punjab, and West Bengal. A review[xlii] of these legislation reveals major gaps, namely outdated legislation, ineffective implementation, absence of rules, lack of uniform standards, and non-coverage of laboratories or diagnostic centres. The Clinical Establishments (Registration and Regulation) Act, 2010 needs to be notified, Rules framed and standards set so that its provisions can come into force in the States of Arunachal Pradesh, Himachal Pradesh, Mizoram and Sikkim and Union Territories. Remaining States should be encouraged to adopt this Act under clause (1) of article 252 of the Constitution. The provisions for registration and regulation of clinical establishments should be implemented effectively; all clinical establishments should also be networked on the Health Information System, and share data on nationally required parameters.

8.4.3 An appropriate regulatory mechanism should be put in place to ensure compulsory rural service by medical graduates. Concurrently, a set of monetary and non-monetary incentives should be built up to encourage doctors and allied health cadres to serve in rural areas.

8.5 **Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994:** While the misuse of technology is widely believed to be responsible for sex-selective abortion, the neglect of the girl child is responsible for lower survival rates of girls, particularly in rural areas. Both these factors contribute to adverse sex ratio among 0-6 year age group, which has shown a deterioration over the last decade. All States and UTs except Punjab, Haryana, Himachal Pradesh, Gujarat, Tamil Nadu, Mizoram and Andaman and Nicobar Islands have witnessed a decrease in the child sex ratio (0-6 years) in the 2001-2011 decade. Effective enforcement of the provisions of Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act and relentless public awareness measures are needed. In Kolhapur district of Maharashtra, a gadget called the "Silent Observer" has been fitted on sonography machines, which maintains a log of all pregnancy tests done, is helping track under-reporting or false reporting of pregnancy termination cases. This measure has resulted in improvement in child sex ratio in the district, and can be replicated by State Governments elsewhere. In addition, State specific multi-sectoral strategies should be developed to ensure a continuum of care and protection of the girl child in infancy and early childhood. A concerted societal and communication campaign should be launched to create value for the girl child and women, along with affirmative action for girls. Local Self Government Institutions, specially the newly elected women panchayat and urban local body members, should be mobilized to change deeply entrenched behaviours and mindsets on the perception about the girl child. Panchayats and urban local bodies which are able to achieve a reversal of the falling trend in child sex ratio should be recognised and awarded, along the lines of the Nirmal Gram Puruskar.

8.6 **Public Health regulation:** Better public health systems, and access to clean water and better sanitation in nineteenth century Europe is believed to have led to improvements in life expectancy. When faced with a plague epidemic in 1994, the multi-pronged strategies adopted by the Surat Municipal Corporation[xliii] with a focus on sanitation are examples of public health in action. At least a third of child related morbidity is known to be related to lack of access to safe water and sanitation. While Tamil Nadu model of public health regulation is available, the Model Public Health Act[xliv] can be consulted for adoption by States. Concurrent creation of a Public Health Cadre would be required to enforce the provisions of the Act.

8.7 **General regulatory issues:**

8.7.1 Innovative models on quality checks and quality assurance mechanisms should be tried. The Task Force on Quality in the 11th Plan[xlv] had recognized that it would be highly desirable and cost effective if the compliance checking work is outsourced to Quality Council of India (QCI) accredited agencies and recommended the model for compliance checking which involves self-regulation in the form of self-declaration and monitoring by industry associations, as complimentary to inspections by Government agencies.

8.7.2 A large number of Government agencies build and operate laboratories with capacity for chemical analysis of varying sophistication. These include AYUSH, DCGI, CSIR, DBT, ICAR, IVRI, FSSAI and State forensic labs. To optimize on the capital and recurring costs and avoid duplication, the possibility of their strengthening, and sharing these facilities across departments should be explored.

8.7.3 The possibility of having a single cadre to enforce all regulations in the health sector needs to be explored. The benefits are avoidance of duplication, and centralized training and uniformly high standards. A dedicated Public Health Cadre can perform regulation related tasks, in addition to attending to population health issues. The Department of AYUSH, however, was of the view that due to distinct nature of Indian Systems of Medicine, a separate regulatory cadre was needed. The Steering Committee is of the view that a single cadre for all health related regulations, including of AYUSH, is both feasible, cost-effective and desirable.

8.7.4 Community involvement in enforcing legal provisions should be explored, such as by empowering Panchayati Raj Institutions, Public Hearings, Citizen Charter, whistle blower mechanism, toll-free, 24*7 help-lines and instituting grievance redress mechanisms.

Chapter-9: Promoting Health Research

9.1 The Department of Health Research (DHR) was created on 5th October 2007 with the vision of promoting and coordinating basic, applied, clinical and operational research in areas related to Medicine, health, bio-medicine and medical profession and education through development of infrastructure, human resource and skills in cutting-edge areas. At the same time, the Indian Council for Medical Research (ICMR) has its own network of 31 National Institutes and also a strong and vibrant culture of extramural research in medical colleges and other institutes.

The strategies for health research in the 12th Plan should be the following:

9.1.1 **Address national health priorities:** The key outcome of the efforts of DHR should be to generate intellectual capital, which may have a public health impact. DHR should, therefore, prioritize its research to find cost-effective solutions for health priorities and health system issues facing the country, namely:

i. Maternal and child nutrition, health and survival;
ii. High fertility in parts of the country;
iii. Low child sex ratio and discrimination against girl child;
iv. Prevention, early detection, treatment, rehabilitation to reduce burden of diseases – communicable, non-communicable (including mental illnesses) and injuries;
v. Sustainable health financing aimed at reducing household's out-of-pocket expenditure;
vi. HIS covering universal vital registration, community based monitoring, disease surveillance and hospital based information systems for prevention, treatment and teaching;
vii. Measures to address social determinants of health and inequity, particularly among marginalized populations;
viii. Suggest and regularly update Standard Treatment Guidelines which are both necessary and cost-effective for wider adoption;
ix. Public health systems and their strengthening; and
x. Health regulation, particularly on ethics issues in research.

9.1.2 **Build Research Coordination Framework:** Though DHR is the empowered Department on medical and health research, many organizations are engaged in research on related topic, namely Ministry of Environment and Forest, Departments of Health and Family Welfare, AYUSH, AIDS control, Space, Science and Technology, Biotechnology, Agricultural Research; agencies like ICAR, DSIR, CSIR, NDMA, DRDO and the National Knowledge Network. DHR should play a lead role in bringing all the concerned organizations on one platform to facilitate mutual discussion, resource pooling and prioritization, and avoid duplication, so as to find innovative solutions to national priorities in a timely manner. It should also take the lead in suggesting institutional structures, like

mutual representation in each others' decision making and scientific bodies, and 'coordinating structures' so that consultation and collaboration become a norm rather than an exception. Efficient mechanisms for selection, promotion, development, assessment and evaluation of affordable technologies should be established. DHR should bring together basic, translational and clinical investigators, networks, professional societies, industry etc. to facilitate development of programmes and research projects. DHR should establish a mechanism for coordination between academia and the industry, with a bias towards trans-disciplinary approaches.

9.1.3 **Efficient research governance, regulatory and evaluation framework:** DHR should also put in place appropriate regulations, guidelines, authorities and structures to strengthen ethics-based research governance and to protect the interests of research subjects, as in clinical trials. Enactment of an Ethics Bill and the establishment of the National Bioethics Authority, creation of National Health Research Forum and establishment of mechanisms for benchmarking, mapping, accreditation etc. of health research institutions are some of the other steps which should be adopted during the 12th Plan. DHR should also develop mechanisms to evaluate the health research undertaken by various scientific departments including ICMR. DHR should put in place mechanisms for benchmarking and accreditation of health research institutions. The criteria for accreditation of research institutes should be based on the intellectual capital generated and its public health impact.

9.1.4 **Nurture development of research centres and labs:** In addition to the development of centres in deficit and strategic areas, DHR should identify and fund the development of existing medical colleges and research centres into specialized subject areas, which may become capable of conducting cross-cutting, trans-disciplinary and translational researches. Similarly, DHR should fund up-gradations of existing Government labs so as to increase capacities for diagnosis of viral and other infectious diseases at the national, regional and District levels. DHR should also build capacity of States and other institutions on the periphery for solving various clinical and public health problems.

9.1.5 **Utilize available research capacity by promoting Extramural research:** Extramural programmes, under which grants are competitively awarded on selected topics, should be expanded to help tap the talent in medical colleges, tertiary hospitals, health universities and public health institutions. DHR should aim to increase the share of extramural funding in its research budget from the current 33% to 50% by the end of 12th Plan. It may also commission 'problem-solving research', following the Open Source Drug Discovery model of CSIR, but would need to subject it to strict scrutiny for outcomes. Translational Research should be promoted so that research findings can be translated into better health status in the country.

9.1.6 **Build on strengths of Indian Systems of Medicine and Homeopathy:** DHR should develop joint research protocols with AYUSH systems to establish their comparative and complementary efficacy, and further build on their known strengths in personalized Medicine, prevention and treatment of non-communicable, degenerative and autoimmune diseases, therapies for rejuvenation and geriatric care.

9.1.7 **Develop Human Resources:** Investments should be made into producing qualified researchers by improving career opportunities for young researchers and providing good initial support in the form of start-up grants. Additionally, fellowships for training researchers in identified advanced fields, scholarships at the PG levels, Young Researcher Programmes to encourage young students and mid-career research fellowships for faculty development at medical colleges are means to ensure a steady flow of committed researchers.

9.1.8 **Cost-effectiveness studies to frame Clinical Treatment Guidelines:** On the lines of UK's National Institute of Clinical Excellence (NICE), DHR should develop expertise to assess available therapies for their cost-effectiveness and essentiality, and formulate and update Standard Treatment Guidelines on a regular basis. The formulation of the Guidelines must, of course, incorporate the best available evidence, including for AYUSH systems, in order to suggest treatment protocols for regular clinical practice. Standard Treatment Guidelines developed by Army Medical Corps can also be referred to. The justification for housing the proposed institute outside the Department of Health, but within the Ministry, is to provide it an element of objectivity and independence from practitioners, and to avoid conflict of interest.

Chapter-10: AYUSH – Integration in Research, Teaching and Health Care

10.1 AYUSH sector in the country has 7.87 lakh registered practitioners, 3277 hospitals with a bed strength of 62,649[xlvi]. There are 24,289 dispensaries, 489 recognized Graduate and Post Graduate colleges and 8,644 drug-manufacturing units. Achievement of national health goals requires an integrated delivery of health services utilizing the mutual strengths of bio-medical and Indian Systems of Medicine.

10.2 The National Health Policy of 2002[xlvii] noted that:
"Under the overarching umbrella of the national health frame work, the alternative systems of Medicine – Ayurveda, Unani, Siddha and Homoeopathy – have a substantial role. Because of inherent advantages, such as diversity, modest cost, low level of technological input and the growing popularity of natural plant-based products, these systems are attractive, particularly in the under-served, remote and tribal areas."

10.3 Similarly, the National Policy on Indian Systems of Medicine & Homoeopathy, 2002 declares as its basic objective, inter alia, the "integration of ISM&H in healthcare delivery system and National Programmes and ensure optimal use of the vast infrastructure of hospitals, dispensaries and physicians"[xlviii].

10.4 The 11th Plan document made a commitment to "mainstreaming AYUSH systems to actively supplement the efforts of the allopathic systems" and thus, included co-location of AYUSH services and posting of AYUSH doctors within the primary healthcare system. Studies have reported as unsatisfactory the quality of infrastructure, presence of human resource, supply of medicines, and records among both stand-alone and co-located AYUSH facilities[xlix]. The level of integration of AYUSH health care institutions under NRHM is indicated in the following table.

Table 9: Integration of AYUSH Healthcare under NRHM

Facility	Total Units	Co-located AYUSH facilities (Number)	Co-located AYUSH facilities (%)
PHCs	23391	8,366	35.77
CHCs	4510	2945	65.3
DHs	604	424	70.2

10.5 The 12th Plan provides an opportunity for bringing together the world's largest health and child care systems through flexible frameworks that ensure a continuum of care with normative standards, while responding to local needs at village and habitation levels. (12th Plan Approach Paper). AYUSH systems and institutions can play a significant role in realizing this goal.

10.6 **Research:** The National Policy of 2002[i] set an objective, which involved a re-orientation and prioritization of certain researches, which would gradually validate AYUSH therapies and drugs that address chronic and life-style related emerging diseases. However, the progress on Pharmacopoeial work has been slow and research on preclinical and clinical studies has been negligible over the 11th Plan, especially for Unani and Siddha. Moreover, cross-disciplinary research and practice requires standardization of terminologies and of classical therapies, and development of Standard Treatment Guidelines, which must be taken up as a priority. Also, classical drugs listed in formularies and therapies should be validated for their safety and efficacy, as recommended in the National Policy of 2002 mentioned above. To take the ambitious research agenda forward, all five Research Councils of AYUSH need to pool resources, particularly human resource, clinical facilities and information, so as to avoid duplication. For this to happen on an institutionalized basis, a common governance structure for the five Research Councils should be put in place. A joint ICMR-AYUSH decision making body with representation of all Research Councils should also be constituted for promoting interdisciplinary research in areas of national interest.

10.7 **Human Resources Development:** Practitioners of modern Medicine, Nursing and Pharmacy need to be exposed to the strengths of the AYUSH systems. This would require introduction of short orientation modules on AYUSH in Medical, Nursing and Pharmacy courses. Codes for cross-referral across all systems should be developed jointly by experts, after an honest appraisal of the strengths of each system.

10.7.1 Cross-disciplinary learning between modern and AYUSH systems at post-graduate levels should be encouraged. Details of modifications in syllabi that would be required at the undergraduate level, in order to make such cross-disciplinary learning possible, should be worked out by a team of experts from the different Professional Councils. AYUSH chairs should be established in medical colleges, which would provide the necessary technical expertise to jointly take up research, teaching and patient care. Once cross-disciplinary education is allowed, there would be a new class of professionals who would be able to leverage the strengths of each system to develop the most appropriate and effective treatment regimes.

10.7.2 The proposed NCHRH offers a forum for realizing the integration agenda if AYUSH professionals are also brought within its purview. The Department of AYUSH can be represented on the Governance structure of the NCHRH.

10.8 **Practice and promotion of AYUSH:** Department of AYUSH should develop standards for facilities at primary, secondary and tertiary levels on the lines of IPHS; Standard Treatment Guidelines and Model Drugs List for community health workers. All primary, secondary and tertiary care institutions under the MoHFW, State Health

Departments and other Ministries like Railways, Labour, Home Affairs etc. should have facilities to provide AYUSH services of appropriate standards.

10.8.1 Roles and responsibilities of AYUSH colleges should be defined for contributing towards national health outcomes.

10.8.2 Joint behavioural change plans should be worked out after incorporating AYUSH-based lifestyle guidelines for RCH, Adolescent Health, Geriatric Care, Mental Health, Non-Communicable Diseases, Anemia, Nutrition and health promotion.

10.8.3 To enable the prescription of essential allopathic medicines by AYUSH practitioners, their extended training through bridge courses and appropriate modifications in regulations should be jointly reviewed.

Chapter-11: Inclusive Agenda

11.1 Marginalized and disadvantaged segments of the population, like residents of remote locations, deserve special attention in making health services accessible to them, and also in making service providers sensitive to their particular needs. These segments include minorities, members of Scheduled Castes and Tribes, the elderly, adolescents, differently-abled persons, women headed households, victims of sexual or substance abuse, those infected with HIV/AIDS, lesbian, gay, bisexual, and transgendered people, vulnerable populations in areas such as the North-East, Jammu and Kashmir and Central India, Tribal dominated regions and 264 high focus districts of the NRHM with lagging health indicators. Health services should also be gender sensitive. Effective delivery of services to residents of remote locations and to marginalized groups can help in prevention, early detection, timely management of conditions and quick rehabilitation of patients. The proposed UHC will entitle all segments of the population, particularly the disadvantaged, to a set of health services.

To meet the special needs of the marginalized, the Steering Committee recommends the following:

11.1.1 **Access to services:** Not only should the possible barriers to access to services be envisaged and remedied, special dispensation should be made to reach out to the disadvantaged and to other residents of remote locations. For example, medical and public health facilities should be differently-abled friendly, gender friendly and child friendly. Information relating to health should be made accessible to those with visual impairments and to caregivers of mentally challenged and autistic persons. Moreover, large hospitals should have interpreters for sign language so that those with hearing impairments are able to communicate easily. The needs of more marginalized groups even within the SC and ST populations, like the Particularly Vulnerable Tribal Groups (PVTGs) and the Denotified and Nomadic Tribes, or the Mushars, for instance, should also be considered while making provisions for Sub-Centres and Anganwadis.

11.1.2 **Special services for vulnerable populations:** The vulnerable and disadvantaged have some special needs, services for which should be made available and accessible. Certain services that might be constituted as being ‘essential’ for some should also be included in the UHC entitlements, but be limited to certain categories of users. For example, the need for counseling for victims of mental trauma in areas with chronic conflict, or the supply and fitting of aids for the differently-abled could be special services for selected categories of users.

11.1.3 **Disaggregated monitoring and evaluation systems:** Routine monitoring, concurrent and impact evaluations should also collect disaggregated information on disadvantaged segments of the population to assess their access to services and their impact, as also to evaluate how they compare to the general population.

11.1.4 **Including representatives of marginalized and disadvantaged segments of the population in community fora:** Wherever community-level fora exist or are envisaged, such as Rogi Kalyan Samitis, VHSNC, etc. members of marginalized communities should be represented.

11.1.5 Training of health and rehabilitation professionals should incorporate knowledge of disability rights, as also the skills to deal with differences in perspectives and expectations between members of disadvantaged segments and the general population, that may arise out of differences in experiences. All health related training institutes must have a comprehensive policy to make their educational programmes friendly to the differently-abled. This should also include components on sensitization of faculty, staff and trainees.

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ALI	AIIMS Like Institution
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWC	Anganwadi Centre
AWW	Anganwadi Worker
AYUSH	Ayurveda, Yoga, Unani, Siddha and Homeopathy
BRHC	Bachelor of Rural Heath Care
CHC	Community Health Centre
CHW	Community Health Worker
CPSE	Central Public Sector Enterprise
CSIR	Council of Scientific and Industrial Research
CSR	Corporate Social Responsibility
CSS	Centrally Sponsored Scheme
DBT	Department of Biotechnology
DCGI	Drug Controller General of India
DHAP	District Health Action Plan
DHR	Department of Health Research
DLHS	District Level Household Survey
DPE	Department of Public Enterprise
DRDO	Defence Research and Development Organization
DSIR	Department of Scientific and Industrial Research
EHP	Essential Health Package
EMR	Electronic Medical Record
FDA	Food and Drug Administration of USA
FDC	Fixed Dose Combination
FICCI	Federation of Indian Chambers of Commerce and Industry
FSSA	Food Safety and Standards Act
FSSAI	Food Safety and Standards Authority of India
GDP	Gross Domestic Product
GIS	Geographical Information System
GMP	Good Manufacturing Practice
GPS	Global Positioning System
HIA	Health Impact Analysis
HIS	Health Information System
HIV	Human Immunodeficiency Virus
HLEG	High Level Expert Group
HQ	Head Quarters
HR	Human Resource
HRH	Human Resource for Health

ICAR	Indian Council of Agricultural Research
ICDS	Integrated Child Development Services
ICMR	Indian Council of Medical Research
ICT	Information and Communications Technology
IEC	Information, Education and Communication
IIIT	International Institute of Information Technology
IIM	Indian Institute of Management
IIT	Indian Institute of Technology
IMR	Infant Mortality Rate
INN	International Non-Proprietary Name
IPD	In-Patient Department
IPHS	Indian Public Health Standards
IT	Information Technology
IVRI	Indian Veterinary Research Institute
JIPMER	Jawaharlal Institute of Post-Graduate Medical Education and Research
MDG	Millennium Development Goals
MMR	Maternal Mortality Ratio
MoU	Memorandum of Understanding
NCHRH	National Council for Human Resources in Health
NDMA	National Disaster Management Authority
NGO	Non-Governmental Organization
NHA	National Health Accounts
NHSRC	National Health Systems Resource Centre
NICE	National Institute of Clinical Excellence
NPPP	Not-For-Profit Public Private Partnership
NRHM	National Rural Health Mission
OPD	Out-Patient Department
PCPNDT	Pre-Conception and Pre-Natal Diagnostic Techniques
PDS	Public Distribution System
PGIMER	Post Graduate Institute of Medical Education and Research
PH	Public Health
PHC	Primary Health Centre
PIP	Project Implementation Plan
PMSSY	Pradhan Mantri Swasthya Suraksha Yojana
PPP	Public Private Partnership
PRI	Panchayati Raj Institution
PVTG	Particularly Vulnerable Tribal Group
QCI	Quality Council of India
RCH	Reproductive and Child Health
RHS	Rural Health Statistics
RKVY	Rashtriya Krishi Vikas Yojana

RSBY	Rashtriya Swasthya Bima Yojana
SC	Scheduled Caste
ST	Scheduled Tribe
TFR	Total Fertility Rate
TN	Tamil Nadu
TNMSC	Tamil Nadu Medical Services Corporation
UHC	Universal Health Care
ULB	Urban Local Bodies
UT	Union Territory
VHND	Village Health and Nutrition Day
VHSC	Village Health and Sanitation Committee
VHSNC	Village Health, Sanitation and Nutrition Committee
WHO	World Health Organization

Annexure: Constitution of Steering Committee on Health

No. 2(9)2011-H&FW
Planning Commission (Health Division)
OFFICE ORDER

Dated 4th May 2011

Subject: Constitution of Steering Committee on Health for the Twelfth Five-Year Plan (2012-2017)

With a view to formulate the Twelfth Five Year Plan (2012-2017) for the Health Sector, it has been decided to constitute a **Steering Committee on Health** under the Chairpersonship of Dr. (Ms) Syeda Hameed, Member, Planning Commission, Government of India.

The composition and Terms of Reference of the Steering Committee are as follows:

S.No	**Name & Designation**	
1.	Dr. (Ms) Syeda Hameed, Member, Planning Commission, New Delhi	**Chairperson**
2.	Dr. JS Bajaj, Former Member, Planning Commission	Member
3.	Secretary, Department of Health & Family Welfare, Government of India, New Delhi	Member
4.	DGHS, Department of Health & Family Welfare, Government of India, New Delhi	Member
5.	Mission Director (NRHM), Department of Health & Family Welfare, Government of India, New Delhi	Member
6.	Secretary, Department of AIDS Control, Government of India	Member
7.	Secretary, Department of Health Research, Government of India	Member
8.	Secretary, Department of Women & Child Development, Government of India	Member
9.	Secretary, Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, Government of India	Member
10.	Secretary, Department of Drinking Water & Sanitation, Ministry of Rural Development, Government of India	Member
11.	Ms. Meenakshi Datta Ghosh, Former Secretary (Panchayati Raj), Government of India	Member
12.	Ms. Sujatha Rao, Former Secretary (Health & Family Welfare), Government of India	Member
13.	Dr. N.K. Sethi, Former Sr. Adviser (Health), Planning Commission	Member
14.	Shri Darshan Shankar, Honorary Adviser, Planning Commission	Member
15.	Mr. Sanjoy Hazarika, Managing Trustee of the CNES Assam	Member
16.	Dr. Binayak Sen, Jan Swasthya Sahayog, Bilaspur	Member
17.	Ms. Shiraz Prabhu, Social Activist, Maharashtra	Member
18.	Dr. Abhijit Das, Director, Centre for Health and Social Justice, New Delhi	Member

19.	Mr. Shejo Bose, programme Director, JANANI, Patna, Bihar	Member
20.	Dr. Lalitha George, Trustee, Tribal Health Initiative, Sittilingi valley, Dharmapuri, Tamil Nadu	Member
21.	Ms. Sangeetha Reddy, Executive Director, Operations, APOLLO Hospital, Hyderabad, Andhra Pradesh	Member
22.	Dr. Devi Shetty, Narayan Hrudalaya, Karnataka	Member
23.	Dr. R.K. Sharma, Director, Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, U.P.	Member
24.	Dr. Dileep Mavlankar, IIM, Ahmedabad, Gujarat	Member
25.	Dr. Basharat Saleem, Shri Maharaja Hari Singh Hospital, Srinagar, J & K	Member
26.	Dr. K.S.Jacob, Professor, Christian Medical College, Vellore, Tamil Nadu	Member
27.	Dr. K Srinath Reddy, President , Public Health Foundation of India (PHFI) , New Delhi	Member
28.	Dr. CAK Yesudian, Tata Institute of Social Sciences, Mumbai, Maharashtra	
29.	Dr. Almas Ali, Senior Adviser, Population Foundation of India & Adviser Human Development Foundation, Orissa	Member
30.	Dr. T. Sundaraman, Director, National Health Systems Resource Centre, New Delhi	Member
31.	Mr. Deepak Sanan, Prinicipal Secretary, Himachal Pradesh	Member
32.	Principal Secretary Health & Family Welfare, NCT of Delhi	Member
33.	Principal Secretary (H&FW), Government of West Bengal	Member
34.	Principal Secretary (H&FW), Government of Tamil Nadu	Member
35.	Principal Secretary (H&FW), Government of Andhra Pradesh	Member
36.	Dr.Vinay Aggarwal, President, Indian Medical Association, New Delhi	Member
37.	Representative, CII	Member
38.	Representative, FICCI	Member
39.	Representative, ASSOCHAM	Member
40.	Ambrish Kumar, Adviser (Health)	Member Secretary

II. Terms of Reference:

1. To review the National Health Policy 2002 with special focus on women, children, life cycle care and preventive and curative health care. To also explore the possibility of adopting the Right to Health as an approach.

2. To assess the need to continue NRHM in the 12th Five Year Plan and review the situation of health care in urban and rural areas including the health care provided by Government as well as voluntary, private and joint sectors after the launch of NRHM. Also explore the possibility of an overarching National Health Mission that subsumes NRHM and the NUHM.

3. To review tertiary health care institutions with a focus on Pradhan Mantri Swasthya Suraksha Yojana, suggest management and structural reforms for better curative health care for *all.*

4. To appoint a special group with select members of Working Groups and others to deliberate on

Health Insurance, Health Care Financing and public health expenditure with inputs of the High Level Expert Group on Universal Health Coverage as the basis.

5. To appoint a special group with select members of Working Groups and others to review the existing norms for infrastructure/ human resource (keeping inputs of the High Level Expert Group as the basis) in health and critically assess the role of private sector and PPP in Medical Education and healthcare delivery, suggesting reforms.
6. To review community processes and assess the role of community ownership in changing responsiveness of Public Health Services (For example, Community Based Monitoring)
7. To review the drug & food regulatory mechanism in the country to ensure access to quality, safe drugs and wholesome food in the country.
8. To recommend governance reforms in primary, secondary and tertiary health care.
9. To review the programmes for containment/control/ management of communicable and non communicable diseases and their delivery through existing health care institutions and suggest modifications.
10. To deliberate and give recommendations on the following issues: Adverse Sex Ratio and Child Sex Ratio; Maternal Health and nutrition; Child Health and nutrition; Adolescent Health and nutrition; older persons; population stabilization; Occupational diseases; Conflict/ disaster related diseases (Example: Non Communicable Diseases such as Mental Health) and PPPP.
11. To suggest effective initiatives for monitoring and evaluation of health programmes and recommend monitor-able indicators for the 12th Plan.
12. To deliberate and give recommendations on any other matter relevant to the topic.

III. The Chairperson may constitute various Specialist Groups/Sub-groups/task forces etc. as considered necessary and co-opt other members to the Steering Committee for specific inputs.

IV. Steering Committee will keep in focus the Approach paper to the 12th Five Year Plan and monitor able goals, while making recommendations.

V. Efforts must be made to co-opt members from weaker section especially SCs, Scheduled Tribes and minorities working at the field level.

VI. The expenditure on TA/DA etc. of the official members in connection with the meetings of the Steering Committee will be borne by the respective Government / Department / Institutions to which the member belongs. Non- official Member(s) of the Committee will be entitled to travel by Executive Class by Air India and their expenditure towards TA/DA (as admissible to Grade I officers of the Government of India) will be paid by the Planning Commission.

VII. The Steering Committee would submit its draft report by 30th September, 2011 and final report by 31st October, 2011.

(Shashi Kiran Baijal)
Director (Health)

i WHO, “Preamble to the Constitution of the World Health Organization as Adopted by the International Health Conference, New York, 19-22 June 1946, and Entered into Force on 7 April 1948.”, 1946, www.who.int/governance/eb/who_constitution_en.pdf.

ii WHO, *The World Health Report 2000 : Health Systems : Improving Performance*, n.d., http://www.google.com/url?sa=t&rct=j&q=%20%20world%20health%20organisation%2C%202000%20the%20world%20health%20report%202000%20health%20systems%3A%20improving%209%20performance&source=web&cd=1&ved=0CCIQFjAA&url=http%3A%2F%2Fwww.who.int%2Fwhr%2F2000%2Fen%2Fwhr00_en.pdf&ei=OxpLT9CwOsTtrAezkeieDw&usg=AFQjCNFM2bK5TXU_KeIDryRitzrlGICMAw.

iii NFHS, “Key Indicators for India”, June 2005, http://www.nfhsindia.org/pdf/India.pdf.

iv Ibid.

v India RG, “SRS Bulletin Vol. 46, No. 1”, December 2011, http://www.censusindia.gov.in/vital_statistics/SRS_Bulletins/SRS Bulletin_ December 2011 .pdf.

vi RG Census, India, “Special Bulletin on Maternal Mortality in India”, September 2007, http://www.censusindia.gov.in/vital_statistics/SRS_Bulletins/Final-MMR%20Bulletin-2007-09_070711.pdf.

vii WHO, “World Health Statistics”, 2011, http://www.who.int/whosis/whostat/EN_WHS2011_Full.pdf.

viii “Designing Health Financing Systems to Reduce Catastrophic Health Expenditure”, n.d., http://www.who.int/health_financing/documents/cov-pb_e_05_2-cata_sys/en/index.html.

ix MoHFW, “National Health Accounts”, May 2004, http://www.whoindia.org/LinkFiles/Health_Finance_National_Health_Accounts_2004-05.pdf.

x WHO, “Key Informant Survey on Responsiveness”, 2000, http://www.who.int/responsiveness/surveys/Ques%20for%20KIS%20WHR2000.pdf.

xi Wikipedia, “Subsidiarity”, n.d., http://en.wikipedia.org/wiki/Principle_of_subsidiarity.

xii MoHFW, “NRHM Mission Document (2005-12)”, 2005, http://mohfw.nic.in/NRHM/Documents/Mission_Document.pdf.

xiii M. Mukerji, “Mukerji Committee Report on Basic Health Services”, 1968, http://nihfw.org/NDC/DocumentationServices/Reports/Mukerji%20Committee%20Report%20%20-%20Part%20II.pdf.

xiv N Jungalwalla, “Report of the Committee on Integration of Health Services”, 1967, http://nihfw.org/NDC/DocumentationServices/Reports/Jungalwal%20Committee%20Report.pdf.

xv JB Srivastava, “Srivastava Committee Report on Medical Education and Support Manpower”, 1975, (http://nihfw.org/NDC/DocumentationServices/Reports/Srivastava%20Committee%20Report.pdf.

xvi JS Bajaj, “Report of the Expert Committee on Public Health System”, 1996, http://nrhm-mis.nic.in/ui/who/PDF/Expert%20Committee%20on%20PH%20System%20JS%20Bajaj%201996.pdf.

xviiK. Srinath Reddy, “High Level Expert Group Report on Universal Health Coverage for India”, 2011, http://planningcommission.nic.in/reports/genrep/rep_uhc0812.pdf.

xviiiWHO, “Essential Public Health Functions: a Three-country Study in the Western Pacific Region”, 2003, http://www.google.com/url?sa=t&rct=j&q=essential%20public%20health%20functions%20who&source=web&cd=2&ved=0CCMQFjAB&url=http%3A%2F%2Fwww.wpro.who.int%2FNR%2Frdonlyres%2F7472FD5D-BBD0-4640-8EB8-3EAC8A2276B9%2F0%2FEssential_public_health_functions.pdf&ei=SqkCT7yGE4PZrQfx_KTnDw&usg=AFQjCNEbvH4fxlqY0nN-fQLRyMQI3F8TCA.

xix Bajaj, “Report of the Expert Committee on Public Health System.”

xx MoHFW, “Model Public Health Act”, 1987, http://cbhidghs.nic.in/index2.asp?slid=881&sublinkid=824.

xxi WHO, “Everybody Business: Strengthening Health Systems to Improve Health Outcomes : WHO’s Framework for Action.”, 2007, http://www.who.int/entity/healthsystems/round11_2.pdf.

xxiiBK Chaturvedi, “Report Of The Committee On Restructuring Of Centrally Sponsored Schemes (CSS)”, September 2011, http://planningcommission.nic.in/reports/genrep/index.php?repts=report_css.htm.

xxiiiMoHFW, “The Way Formward Through Innovations in Health Care - Assam”, n.d., http://mohfw.nic.in/NRHM/Documents/Innovations_Assam_NRHM_Best_Practices_Brochure.pdf.

xxivDepartment of Agriculture and Cooperation, “Rashtriya Krishi Vikas Yojana”, n.d., http://rkvy.nic.in/.

xxvMoHFW, “Model Public Health Act.”

xxviBajaj, “Report of the Expert Committee on Public Health System.”
xxviiIbid.
xxviiiMoHFW, “NRHM Mission Document (2005-12).”
xxixReddy, “High Level Expert Group Report on Universal Health Coverage for India.”
xxxTN HFW, “Tamil Nadu Health Systems Project – Facilitating Public Private Partnership in the Improvements and Upkeep of Health Facilities in the State – Enabling Chief Medical Officers of Primary Health Centres and Hospitals, Hospitals Superintendents of District Hospitals and Deans of Medical College Hospitals to Enter into Memorandum of Understanding (MOU) with Philanthropists, Public Trust, Public Bodies, Corporate Institutions, Non Governmental Organisations (NGO) and Other Public Minded Persons and Institutions for Improvement of Premises, Hospital Building Area, Provision of Infrastructure / Equipment, General Maintenance and Equipment Maintenance Etc.– Expenditure Sanctioned”, January 31, 2008, http://www.google.com/url?sa=t&rct=j&q=tamil%20nadu%20health%20systems%20project%20%E2%80%93%20facilitating%20public%20private%20partnership%20in%20the%20improvements%20and%20upkeep%20of%20health%20facilities%20in%20the%20state%20%E2%80%93%20enabling%20chief%20medical%20officers%20of%20primary%20health%20centres%20and%20hospitals%2C%20hospitals%20superintendents%20of%20district%20hospitals%20and%20deans%20of%20medical%20college%20hospitals%20to%20enter%20into%20memorandum%20of%20understanding%20%28mou%29%20with%20philanthropists%2C%20public%20trust%2C%20public%20bodies%2C%20corporate%20institutions%2C%20non%20governmental%20organisations%20%28ngo%29%20and%20other%20public%20minded%20persons%20and%20institutions%20for%20improvement%20of%20premises%2C%20hospital%20building%20area%2C%20provision%20of%20infrastructure%20%2F%20equipment%2C%20general%20maintenance%20and%20equipment%20maintenance%20etc.%E2%80%93%20expenditure%20sanctioned&source=web&cd=1&ved=0CB0QFjAA&url=http%3A%2F%2Fwww.tn.gov.in%2Fgorders%2Fhfw%2Fhfw_e_33_2008.pdf&ei=xpECT69ujc6tB82egM0P&usg=AFQjCNFeMxgNiRu9S0fGY7DHfReYFHgRDw&cad=rja.
xxxiWikipedia, “Public–private Partnership”, n.d., http://en.wikipedia.org/wiki/Public%E2%80%93private_partnership.
xxxiiDEA, “Scheme for Support to Public Private PArtnerships in Infastructure - Eligible Sectors”, May 4, 2011, http://www.pppinindia.com/pdf/support_infra_ppp_health_education.pdf.
xxxiiiAmeeta Chatterjee Anouj Mehta, ed., “Improving Health and Education Service Delivery in India Through Public–Private Partnerships” (ADB, 2010), http://www.pppinindia.com/pdf/health-education-delivery-india-ppp_adb_dea.pdf.
xxxivJoint Learning Initiative, “Human Resources for Health: Overcoming the Crisis”, 2004, http://www.hrhresourcecenter.org/node/31.
xxxvKrishna D. Rao, “India’s Health Workforce Size, Composition And Distribution” (n.d.), http://www.google.com/url?sa=t&rct=j&q=india%E2%80%99s%20health%20workforce%20size%2C%20composition%20and%20distribution%2C%202008%E2%80%9D%20http%3A%2F%2Fwww.hrhindia.org%2Fassets%2Fimages%2Fpaper-i.pdf%20&source=web&cd=1&ved=0CCIQFjAA&url=http%3A%2F%2Fwww.hrhindia.org%2Fassets%2Fimages%2FPaper-I.pdf&ei=qkZLT8XeH8TWrQfNzIzWDw&usg=AFQjCNHzcWHo9f7Vtax2Se1SkYy0JtccHA.
xxxviMoHFW, “Report Of The Medical Education Review Committee”, 1982, http://www.google.com/url?sa=t&rct=j&q=mehta%20committee%2C%20%E2%80%9Cthe%20%20%20medical%20%20%20education%20review%20committee%20report%2C%201983%E2%80%9D&source=web&cd=1&ved=0CCoQFjAA&url=http%3A%2F%2Fnrhm-mis.nic.in%2Fui%2Fwho%2FPDF%2FReport%2520of%2520the%2520Medical%2520Education%2520Review%2520Committee%2520%28Shantilal%2520Mehta%29%25201983.pdf&ei=qkpLT6PaF8L5rAeAo-Fd&usg=AFQjCNHH566miGiFvnLQVl8VpJxOmbNHeQ.
xxxviiM Laurant et al., “Substitution of Doctors by Nurses in Primary Care,” *Cochrane Database of Systematic Reviews (Online)*, no. 2 (2005): CD001271.
xxxviiiKabir Sheikh, “Why Some Doctors Serve in Rural Areas: A Qualitative Assessment from Chhatisgarh

State", 2010, http://nhsrcindia.org/pdf_files/resources_thematic/Human_Resources_for_Health/NHSRC_Contribution/Retention_of_Skilled_Service_Providers_in_Rural_and_Remote_Areas/Why_Doctors_Serve_in_Rural_Areas_of_Chhattisgarh.pdf.

xxxix MoHFW, "National Health Policy", 2002, http://mohfw.nic.in/NRHM/Documents/National_Health_policy_2002.pdf.

xl MoHFW, "Report of The Expert Committee on A Comprehensive Examination Of Drug Regulatory Issues, Including The Problem Of Spurious Drugs", November 2003, cdsco.nic.in/html/Final%20Report%20mashelkar.pdf.

xli Robert Pear, "U.S. to Tell Drug Makers to Disclose Payments to Doctors," *The New York Times*, January 16, 2012, sec. Health / Money & Policy, http://www.nytimes.com/2012/01/17/health/policy/us-to-tell-drug-makers-to-disclose-payments-to-doctors.html.

xlii Planning Commission, "Report on the Working Group on Clinical Establishments, Professional Services Regulation and Accreditation of Health Care Infrastructure for the 11 Five-Year Plan", 2006, http://www.google.com/url?sa=t&rct=j&q=%20%20%20%20%20%20%20%20%20%20%20%20%20report%20on%20the%20%20%20%20%20%20%20%20%20%20%20working%20group%20on%20%20%20%20%20%20clinical%20establishments%2C%20professional%20services%20regulation%20and%20accreditation%20of%20health%20care%20%20%20%20%20%20%20%20%20%20%20%20infrastructure&source=web&cd=1&ved=0CB8QFjAA&url=http%3A%2F%2Fplanningcommission.nic.in%2Faboutus%2Fcommittee%2Fwrkgrp11%2Fwg11_hclinic.pdf&ei=hZsXT4PVN4qRiQfemfTpBA&usg=AFQjCNGDyeMdy98eU3BeY9ylXLrK0TNoHw&cad=rja.

xliii Archana Ghosh, "Outbreak of Plague, September, 1994 – The Role of Surat Municipal Corporation", n.d., http://www.globenet.org/preceup/pages/ang/chapitre/capitali/cas/indsurat.htm.

xliv MoHFW, "Model Public Health Act."

xlv RA Mashelkar, "Report of the Working Group on Quality, Certification and Conformity Assessment for the 11th Plan", n.d., http://www.google.com/url?sa=t&rct=j&q=http%3A%2F%2Fplanningcommission.nic.in%2Faboutus%2Fcommittee%2Fwrkgrp11%2Fwg11_quality.pdf&source=web&cd=1&ved=0CCgQFjAA&url=http%3A%2F%2Fplanningcommission.nic.in%2Faboutus%2Fcommittee%2Fwrkgrp11%2Fwg11_quality.pdf&ei=XxVOT-SOIsXQrQeUx8mXDw&usg=AFQjCNHkbXJrs26tS_RDnms51F6SeLMuOg.

xlvi Department of AYUSH, "Ayush in India, 2010", July 2011, http://indianmedicine.nic.in/index2.asp?lang=1&slid=632&sublinkid=225.

xlvii MoHFW, "National Health Policy."

xlviii Department of AYUSH, "National Policy on Indian Systems of Medicine & Homoeopathy-2002", n.d., http://indianmedicine.nic.in/index2.asp?slid=565&sublinkid=180&lang=1.

xlix Ritu Priya, "Status and Role of Ayush and Local Health Traditions Under the NRHM", 2010, http://www.google.com/url?sa=t&rct=j&q=nhsrc%20study%20ayush%20nrhm&source=web&cd=3&ved=0CCwQFjAC&url=http%3A%2F%2Fnhsrcindia.org%2Fpdf_files%2Fresources_thematic%2FPublic_Health_Planning%2FNHSRC_Contribution%2FStatus%2520and%2520Role%2520of%2520AYUSH%2520_451.pdf&ei=J4UFT_DZFcbVrQevpNHMDw&usg=AFQjCNGB4OMwJtUX3KkhP2S0NwT5JCFp-Q.

l Department of AYUSH, "National Policy on Indian Systems of Medicine & Homoeopathy-2002."