NRHM in the Eleventh Five Year Plan (2007-2012)

Strengthening Public Health Systems

National Health Systems Resource Centre

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Foreword

The National Health Rural Mission has completed seven years since it was launched (March 2005), and six years since its Framework for Implementation was approved (July 2006) and five years since it was fully operationalized (April 2007) . This Mission has been hailed as one of the most ambitious programmes of public health systems strengthening and reforms anywhere in the world. This program has also attracted widespread interest in both academics and administrators, as well as amongst the public health community. The achievements and challenges of the Mission have also been an object of considerable public interest and media scrutiny. Millions of common people participate in this program as a part of implementation and community level institution structures.

Despite such widespread interest there is little published material in the public domain on the basic features of the program, on what was attempted and what actually happened. This is so despite at least three major evaluations of NRHM and a large number of focused studies on specific components. Further, for assessment of outcomes there is considerable data available from sources like the Sample Registration Survey, District Level Household Survey, Annual Health Survey, and the Coverage Evaluation Survey. Part of the problem is that much of the information generated from the studies and surveys is not in a readily accessible form. It is this gap that the book is meant to close. This book is an analytic documentation based on available secondary data. It documents the progress made by National Rural Health Mission in the Eleventh Five Year Plan period. It is published at a time when we enter into Twelfth Five Year plan.

The National Health Systems Resource Center, which has been the apex technical resource support institution supporting the mission has presented the data drawing from a number of official sources. This data must be read keeping in mind the caution that in a country as large and varied as this, where institutional capacity for data capture and processing has developed so unevenly, there is a certain level of imprecision– regardless of the source, and the data has to be interpreted keeping this in mind. However there is no mistaking the main trends that clearly show that despite the constraints, considerable progress has been made. As companion to this book, the NHSRC would also be publishing some of the important external evaluations of the NRHM- and these also corroborate the trends shown in this report.

To this documentation and presentation of the data, the NHSRC team has also added a brief analysis and comments which deal with some of the most frequently asked questions about the NRHM and some of the constraints faced. Admittedly there is more than one interpretation of why outcomes fell short of targets. What NHSRC has done is to define progress of states with respect to the baselines. It has further tried to understand both the differences in baselines and the constraints faced in the context of the history of

development of health systems across states. Many studies tend to judge the Mission's achievements against the "ideal" and uniform norms of service delivery that were set as the targets, across states. These studies and commentaries do not factor in the much larger distance that weaker states with much less institutional capacity had to travel to even begin revitalizing their state health systems, let alone achieving the norms.

We hope that this timely publication by National Health Systems Resource Center is able to facilitate a well-informed dialogue on the achievements made and the challenges faced by one of India's most unique and challenging efforts in the reform and strengthening of India's public institutions.

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1 Chapter

Understanding the National Rural Health Mission (NRHM)

1. Introduction

"The National Rural Health Mission is a major flagship programme of the government in the health sector, which aims at inclusive health and improved access to quality health care for those residing in rural areas, particularly women, children and the poor by promoting integration, decentralisation and encouraging community participation in health programmes" (para 7.3, Mid term review report of the Planning Commission.)"

The National Rural Health Mission was launched in April 2005. It took a further 14 months before the framework of implementation was approved in July 2006, and it was therefore only in the financial year of 2007-08 that the programme became fully operational. This also coincided with the XIth plan period(2007 to 2012).

Few government health initiatives have attracted the extent of national and international attention that the NRHM has. The NRHM and its components have been the subject

Box 1: Principles of Implementation Framework

1. Provide effective healthcare to rural population, especially women and children, with special focus on 18 states, which have weak public health indicators. This would mean improved access, equity, quality, accountability and effectiveness of public health services.
2. Increase public spending on health to 2-3% of GDP, with improved arrangement for community financing/ risk pooling or other forms of social protection against rising costs of health care.
3. Undertake architectural correction of the health system to enable it to effectively handle increased financial allocations and to promote policies that strengthen public health management and service delivery in the country.
4. Decentralized management at district level, effective integration of health programmes, and involvement of panchayati raj institutions as well as the community in management of primary health programmes and infrastructure, in innovations for health care and in addressing determinants of health like sanitation and hygiene, safe drinking water, nutrition, gender and social concerns.

of academic research, programme evaluations, official reviews and print and television coverage almost constantly.

Thus, as the eleventh plan period which is co-terminus with the first phase of NRHM, ended in March 2012, it is important to document what was attempted and what was achieved, key constraints faced and lessons learnt. The aim of this publication is to precisely do this, in a brief and factual manner, from the stand-point of those at the national level charged with implementing the programme.

In this introductory chapter we record the Vision, Goals and Objectives of the Mission, and locate this in the context of the health systems in which the National Rural Health Mission was launched. We also briefly recount the process and design of the NRHM and relate this to the challenge of measuring achievement. In the second chapter we present a report card on the core health outcomes - Total Fertility Rate (TFR), Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR) during the period 2005 to 2012, using data from recent surveys and discuss their link to NRHM components which directly relate to these outcomes. Since the latest available data from the Sample Registration Survey (SRS) covers the period upto 2011, this report does not reflect achievements beyond that period. However, given the trends during the period 2007-2011, one can predict with some degree of accuracy the trajectory of improvements for the last year of the Plan period. In the remaining six chapters we present the progress made in various dimensions of the public health system strengthening, which include Improvements in service delivery linked to strengthening of public health facilities, Disease Control Programmes, and Human Resources for Health, Community Processes, Public Health Financing, and Governance and Programme Management. Every chapter also includes a set of Frequently Asked Questions (FAQs) for clarification on certain facets of the issue under consideration.

2. The Health Systems Context in which the NRHM was launched

Health is a state subject and the state governments spend 65% to 80% of the public expenditure on health care. Family Planning, Disease Control and Medical Education and Research are supported by the Central Government. At the time when NRHM was launched, health financing by the central government was limited to few national disease control programmes and the Reproductive and Child Health (RCH) programme.

In the nineties, due to a fiscal crisis, expenditures in health care by state governments declined significantly. There was no expansion of public health systems capacity, and many states were unable to replace retiring staff. The private sector grew, but this growth was most uneven, concentrated by its very nature, in urban areas. This combination of factors led to a deterioration in the availability of skilled health professionals and a subsequent decline in access to health care, especially in rural areas. Structural adjustments and the increased need for international financial support led to an understanding of health sector reform which was aligned to the economic reform of these years. The main features of this reform called for the government to focus public health financing on a selective list of health priorities, which had the most favourable estimated ratio of money spent for "Disability Adjusted Life Years"(DALYs) saved. This in effect meant a focus on reproductive and child health and vertical health programmes related to Tuberculosis, HIV/AIDS, Vector Borne Diseases, and Blindness Control. The remaining health care needs were seen as better addressed through health markets.

Further it was considered desirable to expose the public health sector to market like mechanisms. As part of this understanding, the collection of user fees for all hospital services was made a part of financing conditionalities, and public hospitals aimed for cost recovery as a policy objective. In this policy environment most public hospitals withdrew from provision of free drugs and diagnostics, except for selected national disease control programmes. Also in line with "keeping government small" there was no effort to fill up vacancies, or expand public health system capacity, especially in the high focus states where there were huge gaps even prior to the nineties. Medical education which until the nineties had been predominantly government run, shifted dramatically into the private sector, and by the end of the decade became predominantly private. Needless to say, left to market forces, medical and nursing colleges set up by private agencies, expanded rapidly in only about four to six of the better developed states in the south and west of the country. Similarly market driven growth led to weak rural health services and primary health care, but in this same period tertiary health care services grew rapidly in the major cities and "medical tourism" became a success story

Thus in 2004 with the election of a new government at the Centre, the political mandate for the center was to address the health needs of the majority in a much more effective and visible way. Rising costs of health care had become a major public health issue. Out of pocket expenditure accounted for nearly 80% of total health expenditure, with less than 1% of the GDP being committed to public health expenditure. The escalating cost of health care became not just a barrier to accessing health services, but also a major contributor to impoverishment, with an estimated 3.2% of the population (approximately 39 million people) slipping below the poverty line every year, due to health care costs alone [1].

In the nineties, the vertical national health programmes had remained adequately financed. However outcomes remained limited due to poor and declining quality of health systems in the states. States such as Tamilnadu and Kerala, whose governments made strategic investments to develop robust public health systems, were acknowledged to be the best performers in terms of public health outcomes. Other states, with the support of the central government sought and got funding from international aid agencies for a number of state health systems development programmes (HSDP) , with policy conditionalities which required to limit government role to few health care areas, introduce user fees and so on. These programmes met with limited success but they highlighted a key role for central assistance to strengthening state level public health systems. Civil society groups were also raising the issue of neglect of primary health care and demanding a renewed commitment to health for all. For all these reasons, and with a buoyant economic growth making more funds available, there was a policy shift towards strengthening public health systems. This formed the immediate health systems context and thus NRHM was primarily a financing mechanism for strengthening public health systems in the states.

3. Design Features of the NRHM

The NRHM design owes its current shape to a number of diverse factors.

One important design consideration was the need to incorporate a number of vertical programmes financed by international agencies whose designs were already finalised. The NRHM was therefore designed as an "additionality" to the existing RCH, Immunisation and Disease Control programmes. Funds were sanctioned to the states under 5 heads-

Part A was for RCH , Part B was called NRHM additionalities meant exclusively for strengthening health systems, Part C was for an additional thrust in immunisation services, Part D was the disease control programmes and Part E represented funds for action on social determinants and convergence that were to be leveraged from other sectors.

Another important design consideration was that while there was a clear mandate to increase public health expenditure to 2 to 3% of the GDP, the ability of health systems to absorb these additional funds was as yet untested and therefore in doubt. There was also the additional concern, that the long neglected public health system was as yet too dysfunctional to make optimum use of these funds. For these reasons, the NRHM design called for "Architectural Corrections" to the public health system (as distinct from what was called health sector reforms in the earlier period). These architectural corrections were defined in consultation with diverse stakeholders including state government representatives, public health experts, and members of civil society through consultative meetings. Nine task forces were constituted by the Ministry of Health and Family Welfare (MOHFW), to design the change needed in each health systems component. The task forces related inter alia, to Goals of the Mission and its Key Components; Strengthening Public Health Facilities including defining Indian Public Health Standards and Mainstreaming AYUSH, Strengthening Community Health Care through Community Level activists which designed the ASHA programme, Public Private Partnerships, Role of Panchayati Raj Institutions and Community Action , Exploring New Health Financing Mechanisms, District Planning, Medical Education, and Technical Support for the Mission.

One resultant outcome from the work of the task forces and the consultative processes, was the emphasis on comprehensive and responsive care provision as distinct from selective care, and a greater reliance on public financing rather than user fees for facility management and a somewhat guarded policy of expanding human resources for public health, provided these were defined as contractual.

Today, policy recommendations of several both global and national expert committees, accept these three features - "comprehensive, and not selective care", rejection of user fees as a financing mechanism and increased investments in human resources for health, as obvious principles of health systems governance. But, at the time of creation of NRHM, the articulation of these three features was tentative, and was considered to be controversial and seen as being bold steps in a new policy direction. The other important policy direction was in defining Public Private Partnerships as supplemental to the task of the strengthening public health systems, to bring in additional investment and capacities, but not to substitute or compete with what exists. NRHM funds were clearly to be prioritised for strengthening the functioning of public health facilities so as to achieve a set of service guarantees, infrastructure and human resource deployment defined for each facility. One problem with the design was that irrespective of baselines, all facilities across the nation were to achieve the same ideal norms. Given the huge gaps in infrastructure and human resourcs in the high focus states and the lack of health professionals who could be recruited , such goals were more aspirational than time bound objectives. However as we shall see they did spur a huge effort, not only in revitalising the existing public health system, but even in promoting a massive expansion of medical, nursing and paramedical education across the nation.

Recognising the greater challenges some states faced and therefore the greater investment that these states needed- the NRHM design categorised 18 states as high

focus. These were the 8 states of the North East (Assam, Meghalaya, Tripura, Mizoram, Manipur, Arunchal Pradesh, Nagaland and Sikkim), the 8 central states with high infant and maternal mortality- Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan, Chhattisgarh, Jharkand, Uttarakhand, and Odisha) and two hilly states of Jammu and Kashmir and Himachal Pradesh. These states received a proportionately higher per capita financing than the other states.

Architectural corrections also related to two important policy goals- one was decentralisation with greater role for panchayats and the other was horizontal integration of vertical programmes. For both these goals, the main mechanisms envisaged were the creation of state, district and sub district health societies which provided for multistakeholder representation. Also mandated were Hospital Development Societies (Rogi Kalyan Samitis- RKS) and Village Health and Sanitation Committees (VHSC). In all district and sub-district societies, the elected panchayat members had a prominent place, with the exact role definition being left to the state. The other key institutional device of decentralisation and integration was the District Health Action Plan (DHAP) and the state Programme Implementation Plans (PIP).

Improvements in management and technical assistance called for a number of new organisational structures and the induction of professional management and accounting skills at block, district and state levels. A nation-wide health management information system was also mooted.

Finally in order, to address the constitutional requirements of a federal structure, state governments were required to submit a state PIP to be sanctioned and monitored by a joint centre- state mechanism. The administrative sanction for an annual PIP was through the Record Of Proceedings (ROP) of the National Programme Coordination Committee (NPCC). The state plans in turn were to be based on an aggregation of DHAPs, which were to be informed by decentralised planning processes at the levels of the block and village.

4. Measuring Progress and Key Learning

The NRHM and the Eleventh Five Year Plan also had a clear set of measurable objectives. The core measured health outcomes were specified as Maternal Mortality Rates (MMR), Infant Mortality Rates (IMR) and Total Fertility Rates (TFR), and the targets of National Disease Control Programmes (NDCP). In addition there were process targets related to facility development, community processes, and governance reform.

Given the differences in baselines, priorities, capacities and governance across states, the pace of the programme, there are varying outcomes across the states. We try to capture this variation and its lessons in the following pages. We comment on outcomes using secondary data from multiple sources including data from the Census 2011, the Sample Registration Surveys, and other reliable third party health surveys. We also use data and knowledge generated from evaluation studies, assessments reports and internal programme monitoring reports to comment on the process indicators as well as on limitations and constraints faced in reaching the set objectives.

Attribution of outcomes to NRHM is not straight forward. Some of the improvements are due to pre-existing trends. As has been mentioned earlier, the programme became operational only in 2007 and thus the results were visible in about 2008. But most important, the NRHM is not a singular package or even a set of mechanisms whose

effectiveness can be subject to a standard model of impact evaluation. NRHM is primarily a financing mechanism for strengthening the public health system in the states. NRHM design recognises that beyond this increased investment, improved governance, institutional reform and innovation are essential, and these cannot be ensured by NRHM alone. NRHM enabled a flexible programme and budgetary environment which in turn stimulated state governments to pilot innovations in health systems delivery.

This document captures not whether NRHM "succeeded" or "failed", but analyses the changes in health outcomes and health systems in the Eleventh Five Year Plan phase of the NRHM, from the point of view of constraints that were faced and the lessons learnt.

We hope that this document provides a factual and conceptual baseline for the next five years of the NRHM. This document must be read along with the detailed programme evaluations of nearly every component of NRHM that are now available, including three important large scale external evaluations.[1-3] Only on such a well-grounded understanding of where we are and the problems faced in reaching there, can we plan for the future.

[1]. Evaluation Study of National Rural Health Mission (NRHM) In 7 States by Programme Evaluation Organisation; Planning Commission; Government of India, 2011

[2]. Improving access, service delivery and efficiency of the public health system in rural India; Mid-term evaluation of the National Rural Health Mission; International Advisory Panel ; 2009

[3]. Concurrent Evaluation of NRHM, International Institute of Population Sciences Mumbai, 2009

2 Chapter

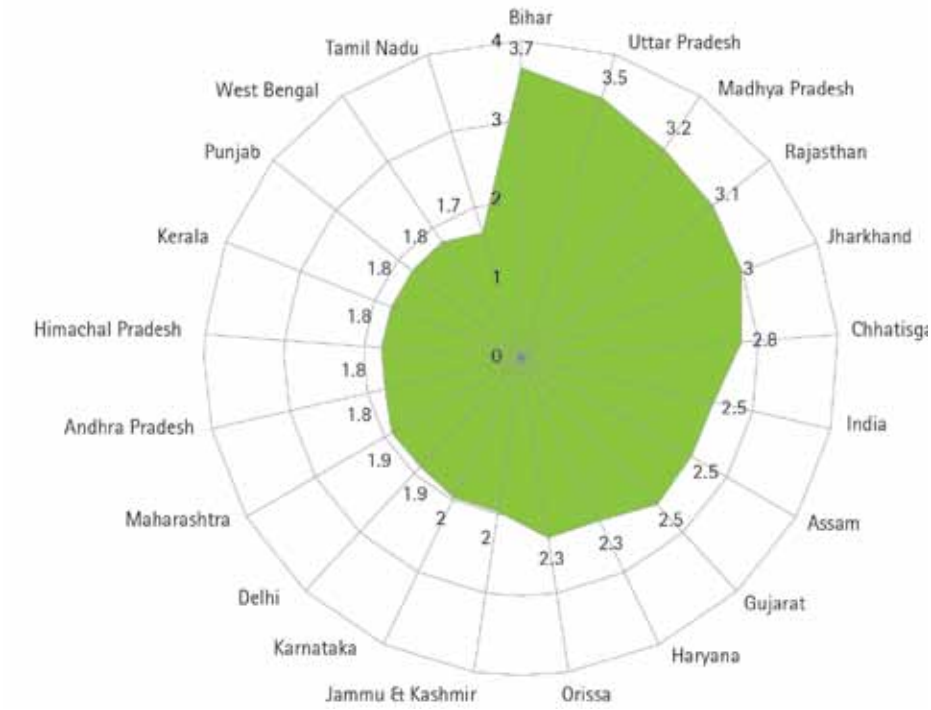
Core Health Outcomes of The Eleventh Five Year Plan Period

The three key goals set by the RCH-II programme, by the NRHM and by the Eleventh Five Year Plan, included reduction of Total Fertility Rate (TFR) to 2.1 or less, IMR to 28, and MMR to 100 per 100,000 live births. For the country as a whole, latest available data indicates the following progress: the TFR has been reduced from 2.9 in 2005(SRS 2006) to 2.5 in 2010(SRS, 2012), IMR from 58 in 2005 to 44 in 2011 (SRS, 2012) and the MMR was estimated at 212(SRS, 2007-2009) [2]. If we extrapolate, given the rate of improvement seen in last years, we may anticipate a TFR of 2.3, an IMR of 42 and a MMR of 170 by the year 2012.

The pattern across states for each of these outcomes is presented below.

1. Population Stabilisation

Figure 1: Total Fertility Rate, India and state



Source: SRS Bulletin (April, 2012)

Table 1: Crude Birth Rate of India and states		
	CBR- 2005	CBR- 2011
All India	**23.8**	**21.81**
Large States		
Andhra Pradesh	19.1	17.5
Assam	25	22.8
Bihar	30.4	27.7
Chhattisgarh	27.2	24.9
Gujarat	23.7	21.3
Haryana	24.3	21.8
Jharkhand	26.8	25
Karnataka	20.6	18.8
Kerala	15	15.2
Madhya Pradesh	29.4	26.9
Maharashtra	19	16.7
Orissa	22.3	20.1
Punjab	18.1	16.2
Rajasthan	28.6	26.2
Tamil Nadu	16.5	15.9
Uttar Pradesh	30.4	27.8
West Bengal	18.8	16.3
Small States & UTs		
A&N Islands	15.7	15.1
Arunachal Pradesh	23.3	19.8
Chandigarh	17.3	15
D&N Haveli	29.4	26.1
Daman & Diu	19.1	18.4
Delhi	18.6	17.5
Jammu and Kashmir	18.9	17.8
Goa	14.8	13.3
Himachal Pradesh	20	16.5
Lakshadweep	19.1	14.7
Manipur	14.7	14.4
Meghalaya	25.1	24.1
Mizoram	18.8	16.6
Puducherry	16.2	16.1
Nagaland	16.4	16.1
Sikkim	19.9	17.6
Tripura	16	14.3
Uttarakhand	20.9	18.9

Note: The states with CBR above national average are in red

Source : SRS Bulletin October, 2012)

Table 2: Total fertility rates of Indian states				
Category	**State**	**2005**	**2010**	**Point Change**
States with TFR >2.8	Bihar	4.3	3.7	0.6
	Uttar Pradesh	4.2	3.5	0.7
	Madhya Pradesh	3.6	3.2	0.4
	Rajasthan	3.7	3.1	0.6
	Jharkahnd	3.5	3.0	0.5
	Chhattisgarh	3.4	2.8	0.6
States with TFR >2.1	Assam	2.9	2.5	0.4
	Gujarat	2.8	2.5	0.3
	Haryana	2.8	2.3	0.5
	Orissa	2.6	2.3	0.3
Sates with TFR <2.1	Andhra Pradesh	2.0	1.8	0.2
	Delhi	2.1	1.9	0.2
	Himachal Pradesh	2.2	1.8	0.4
	Jammu & Kashmir	2.4	2.0	0.4
	Karnataka	2.2	2.0	0.2
	Kerala	1.7	1.8	-0.1
	Maharashtra	2.2	1.9	0.3
	Punjab	2.1	1.8	0.3
	Tamil Nadu	1.7	1.7	0.0
	West Bengal	2.1	1.8	0.3

Source : SRS Bulletin April, 2012)

The most reliable latest figures are from the SRS, which provides annual Crude Birth Rates (CBR) (Table1) for all states and TFR for the large states (Figure 1).

Ten large states out of 20 for which figures are available have reached the target TFR of 2.1 (2010) (Table 2). Two more sates- Haryana and Orissa at 2.3 are likely to reach the target soon. Even in the six states (Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan, Jharkhand and Chhattisgarh) with TFR over 2.8, the rate of decline is encouraging (Table2). Between 2005 and 2010, TFR declined by 0.7 points in Uttar Pradesh, 0.6 points in Bihar, Rajasthan and Chhattisgarh while in Jharkhand and Madhya Pradesh it declined by 0.5 and 0.4 points , respectively, as compared to national average of 0.4 in the same period. Thus while the overall picture is one that demands sustained high commitment and performance, there is a case to be made for guarded optimism on this front.

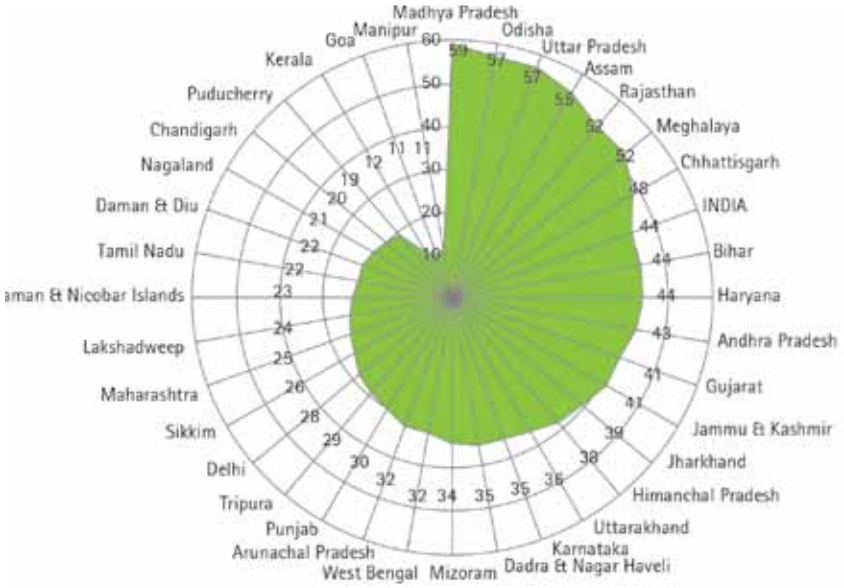
As for CBR, 24 of all 35 states and union territories are now below 21 births per 1000 population. Of the remaining 11, Gujarat (21.3), Haryana (21.8) and Assam at 22.8 are close to the national target. This is also true for all North East states except Assam and Meghalaya and all union territories except Dadra and Nagar Haveli.

The findings of Census 2011, were commensurate with the CBR data. Census 2011 estimated national growth rate at 17.4; and this suggests a significant decline from the previous decade. Over the past decade Annual growth rate declined from 1.97 to 1.64, "Census 2011 marks a milestone in the demographic history of the country, as it is perhaps for the first time, there is a significant fall in growth rate of population in the EAG states after years of stagnation."

2. Infant Mortality

Accelerated decline in IMR and Under Five mortality rates (U5MR) was one of the most important objectives set for NRHM and the XIth Five Year Plan. Fifteen states and union territories have attained the NRHM goal of an IMR of 30 per 1,000 live births (SRS data for year 2011), as shown in Figure 2. At the current rate of decline, a total of eighteen states will have crossed the goal-post by 2012. In the North East states, though Assam, Sikkim and Tripura show improvement, there are set backs in IMR in other states. Meghalaya in particular has not been able to show much progress, in the first years, though in the last year, it also has started picking up.

Figure 2: Infant Mortality Rate, India and state 2011



Source: SRS Bulletin October, 2012.

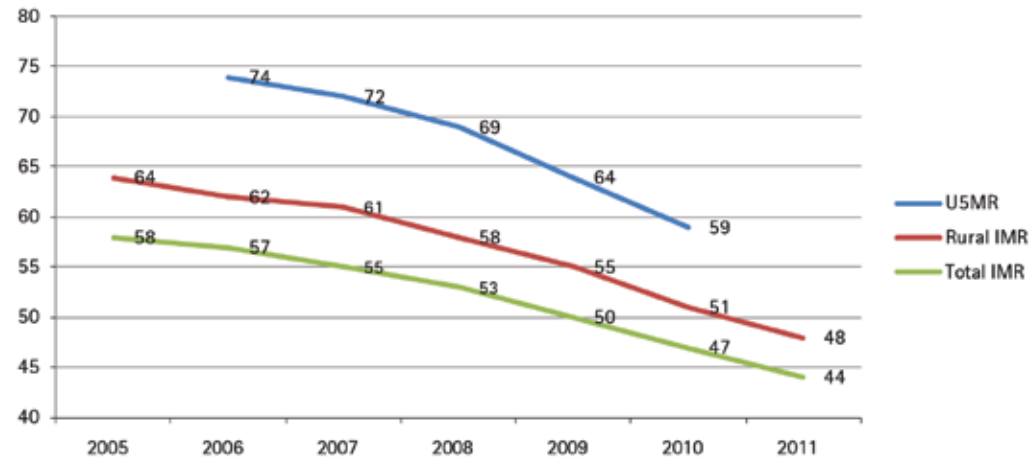
While it is true that the majority of the high focus states are well behind this target, the data reveals an accelerated rate of decline particularly in the rural areas, likely attributable to the improved access to healthcare that resulted from NRHM.

After being launched in April 2005, the NRHM became fully operational in 2007. Since then the rate of decline in under 5 mortality has nearly doubled with U5MR from 74 in 2005 to 69 in 2007 and subsequently to 59 in 2010 (SRS, 2011).

Rural IMR, for India as a whole declined from 64 in 2005 to 61 in 2007 and then by a steady three points each year to 48 in 2011. Rate of decline in urban IMR however is a cause for concern showing a slower decline from 37 in 2007 to 29 in 2011.

The annual rate of decline in child mortality was 2.2% during the period 1990- 2008. However in the period between 2008-10; the annual rate of decline accelerated to 7.8%.

Figure 3 Trends in Child and Infant Mortality Rate



Source: SRS Bulletins

pointing to the success of the NRHM in strengthening health systems AND expanding rural outreach through strategies such as the ASHA programme, the Village Health and Nutrition Day, and skill building of ANMs and MOs in management of the sick child.

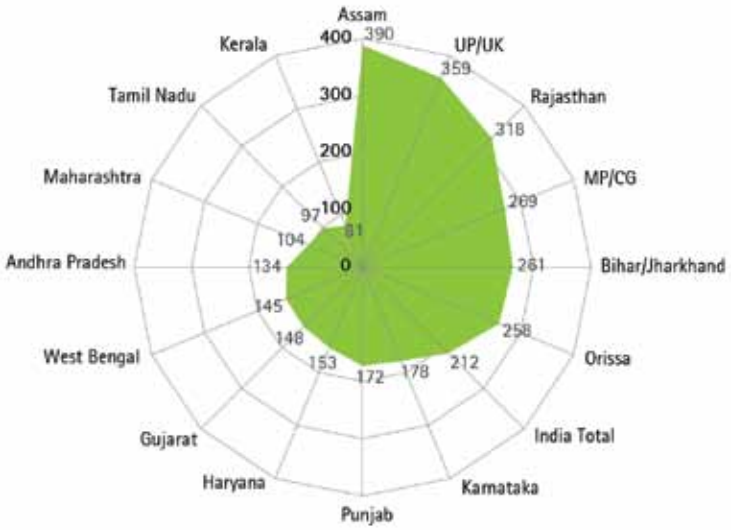
While IMR has declined, the age segregated data suggests that the neonatal mortality as proportion of infant mortality has increased from 43% in 2001-03 to 55% in 2010. This calls for further strengthening of interventions targeted towards improving newborn survival.

Despite these overall encouraging trends, and sustaining the current accelerated rate of decline, national IMR would still be around 42 by the end of 2012, against the goal of 28 set by the planning commission.

Maternal Mortality:

Kerala, Tamil Nadu and Maharashtra have reached the goal of an MMR of 100, but most states lag behind. Assam has shown the greatest improvement between 2005 and 2008 , but despite a drop of 90 maternal deaths per 100,000 live births, it still has the highest MMR of 390 per 100,000 live births. The six states that have a MMR higher than the national average account for 68% of the total maternal deaths in the country.

Figure 4: Meternal Mortality Ratio, India and state 2007-2009



Source: SRS

The maternal mortality at country level declined from 254 in 2005 (SRS, 2004-06) to 212 per 100,000 live births in 2008 (SRS, 2007-09). The rate of decline in maternal mortality during early years of NRHM has been at about 14 points per year. At this rate of decline, the national MMR could reach 170 maternal deaths per 100,000 live births by 2012. Since most programmes aimed at maternal mortality reduction have kicked in only after 2008, one can look forward to further acceleration. Meanwhile measures to improve maternal death reporting have also been strengthened across all states in this period.

In Conclusion:

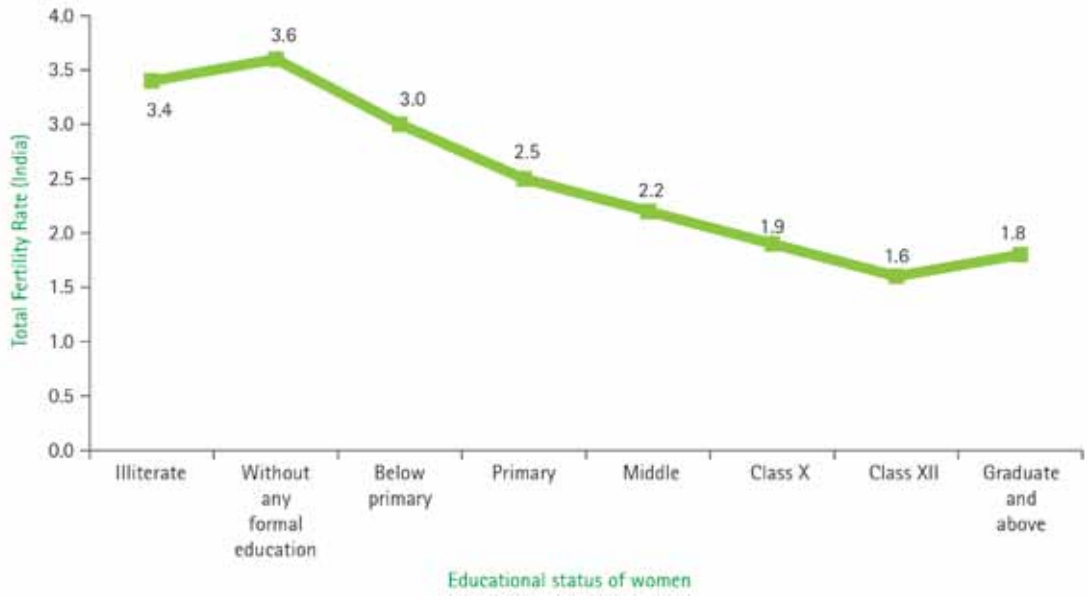
There has been steady improvement in the core maternal and child health indicators. This improvement has been greater in rural than in urban areas, and there is modest but significant acceleration in the last five years, particularly for decline in IMR. The highest burden of mortality remains in the eight high focus states and Assam. But these states are are also disadvantaged in terms of socio-economic determinants of health, which is further aggravated by weak health systems. We have SRS figures for 2004 to 2006, and we have figures for 2007 to 2009. These can be treated as for simplicity as figures for their mid-years- 2005 to 2008.

The role of Social Determinants:

The role of social determinants in health outcomes needs to be recognized and addressed even as we acknowledge the gains in core health outcomes from NRHM investments. The role of infant, child and adult nutrition, literacy, particularly amongst girls, access to clean drinking water and sanitation facilities and gender equity are key determinants of good health which have a direct correlation to maternal, newborn and infant health. Recent data from 2011 census demonstrates an inverse linear correlation between total fertility rates and female literacy.

Abysmally low access to water and sanitation contribute to a high disease burden in rural and urban areas. The data from census 2011 show that nearly 50% of India's population

Figure 5: Total Fertility Rate w.r.t literacy levels of mothers, India



Source: SRS statistical report, 2012 (TFR Data for 2010 from SRS 2012, literacy data from census 2011)

have no access to toilets and perforce resort to open defecation The facts on drinking water are just as dismal, less than half of the population has access to drinking water within the premises of their homes. Clearly, acceleration of gains in health outcomes will now require greater attention to social determinants through convergent action by multiple stakeholders and cannot be limited to health systems improvements alone.

Despite the odds, the high focus states have shown a higher rate of improvement than that of the national average. This is encouraging and bucks the pre NRHM trend of stagnation in these three key indicators.

Frequently Asked Questions

Q.1: How did NRHM contribute to these changes?

A. *NRHM has played a major role by strengthening health facilities to provide services by adding over one lakh human resources, improving infrastructure, by increasing availability of equipment and essential supplies and by promoting demand through community level processes.*

Beyond health systems strengthening, the RCH component of NRHM introduced a number of innovative strategies in maternal health, child health and family planning programmes which also contributed in a major way.

Four major innovations have contributed to the reduction in maternal mortality. These include the Janani Suraksha Yojana (JSY) for promoting institutional delivery, the "Dial 108" Ambulance System, to address the issue of emergency transport, the multiskilling of non specialist medical officers to address the lack of specialist skills for the provision of emergency obstetric care and the Janani Shishu Suraksha Karyakram (JSSK) to reduce the financial barriers of access to care.

There is convincing evidence that these strategies are working. Some components like the JSY were rolled out very fast, and others took much longer, being visible on the ground in most states only during the last two years. Some of these strategies were developed in response to learning from implementation, feedback and evaluation. Thus for instance ambulance systems improved with cross learning across the states, and the JSSK was an outcome of the finding that despite the JSY, high out of pocket expenses were being incurred by families on transport, on drugs, and informal fees.

In the reduction of child mortality, the main strategies have been universal immunisation, training of ANMs and anganwadi workers on the Integrated Management of Newborn and Childhood Illnesses (IMNCI), the development of capacity in facilities to provide care for the sick child, institutional care for children with severe malnutrition. Complementing these strategies was a major thrust at introducing home based care for the newborn and sick child through the ASHA. By late 2011, all four elements were in place, having overcome a plethora of structural barriers that posed a constraint to rapid scaling up.

Advocacy to obtain stakeholder consensus for such change, and the processes of strengthening institutional capacity for scaling up took almost the entire first five years of the NRHM for both home based newborn care by ASHAs and facility level care for the sick child, and despite the gains, institutions and capacities in districts with high mortality remain weak.

In family planning the main strategy change was to move from camp based approach to fixed sterilisation days as well as a greater emphasis on spacing methods. But despite of increases in human resources, the skilled worker density in faciltiies has not reached the required level for the achievement of fixed sterilisations days on a weekly or even monthly basis. However an improvement in demand for contraceptive services has made the task easier.

Q.2: Is the concern that schemes such as the JSY designed and implemented without adequate emphasis on population stabilisation lead to an increased population valid? Is the related concern that NRHM and health policy over the last ten years did not have an adequate focus on population stabilization valid?

A. *There is no evidence that the relatively small enabling sum given as part of JSY would significantly influence women families to have repeated pregnancies. The data not only show that there is an accelerated decline in population growth in the high fertility states, but also that unmet needs continue to be high. Bringing families into contact with the health system increases their confidence in child survival and helps to empower and motivate women for family planning. There is however a problem in service provision of contraceptive services as there is a mismatch between the rate of growth of skilled service providers and the utilisation of services. Thus, if gynaecologists are called upon to shoulder a much higher work-load in emergency obstetric care, their availability for sterilisation services decreases and vice versa. The Government is working at both increasing utilisation of temporary methods of contraception and at increasing the skilled human resources needed, but the challenges are greater in six states, where fertility is over 2.8 and human resource gap is the largest.*

3 Chapter

Health Facility Strengthening

Evidence from a wide variety of sources confirms that there has been a substantial increase in the number of out patient and in-patients provided health care at public health facilities. There is also a major increase in the number of institutional deliveries at health facilities and a substantial increase in coverage of women and children receiving out-reach health services. Presented below is the data documenting this increase in service delivery, in relation to the efforts made under NRHM for strengthening public health facilities.

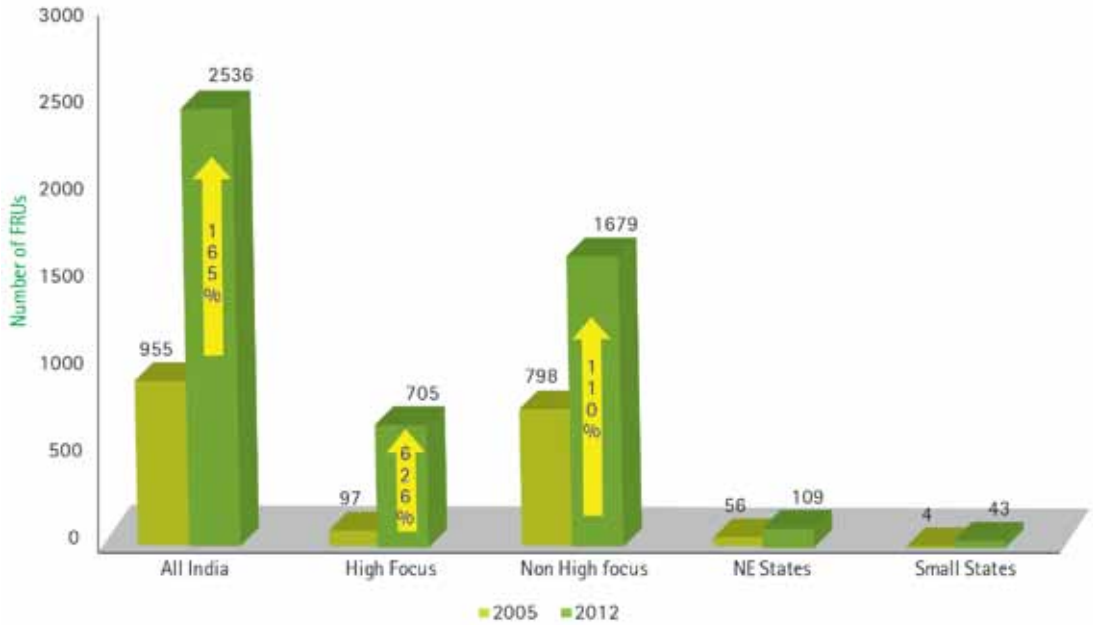
1. Public Health Facility Strengthening

Much of the facility strengthening aims at improved provision of RCH services and it broadly refers to establishment of First Referral Units (FRUs) and 24*7 health care facilities.

A. First Referral Units or Level-III RCH service package

An FRU is defined as a facility that provides the complete range of RCH services, especially comprehensive emergency obstetric care (CEmOC) services or what is also

Figure 6: Change in the number of FRUs established, 2005-2012



Source: MOHFW, NRHM MIS Report, as of 31st March, 2012

defined as level III RCH services. In addition to BEmOC, this package of services includes facility for Caesarean sections, blood transfusion and safe abortion services. It is a prerequisite for an FRU to have at least 30 beds, a functional operation theatre and a team of medical specialists.

Under NRHM there was a 165.5% increase in the total number of FRUs as compared to the baseline year of 2005 (Figure 6). The total number of FRUs increased from 955 to 2,536. Impressive though this may be, it was well short of NRHM targets.

As per IPHS norms, 1 FRU level unit must be established for 120,000 population unit and NRHM's objective was to establish 5000 such facilities. However, as per WHO norms at least one facility should provide comprehensive emergency care for every 500,000 population, requiring India to have 2,421 FRUs. While India surpasses the WHO norm, it falls short of NRHM's target.

The skew in distribution of these FRUs is a greater concern. The high focus states which account for almost three fourths of all maternal deaths still have a 39% shortfall, even by the WHO norms. Within these states there is a further skew, with the high focus districts having a disproportionately fewer number of functional FRUs. This is not a NRHM failure since there is an increase of 626% in FRUs in these states, but is reflective of the very low baselines from which the task of re-vitalising public health systems had to start.

The Non High Focus states which had a comparatively better baseline in both human resources and management systems capitalized the opportunity offered by NRHM and account for 55.7% of the total increase of 1581 FRUs. However even these states need to overcome uneven geographical distribution of FRUs, and achieve the standard of access defined as an FRU "within a hour of any primary health care facility."

At the same time, the concept of FRU needs to be expanded beyond RCH services, for which most of the infrastructural support is now in place while the specialist skills gap needs to be filled.

B. Achieving 24x7 public health care facilities

One of the important goals of NRHM was to ensure that every primary health care facility achieved the standards set by IPHS. The focus of efforts towards achieving this came to be known as 24x7 PHCs which means that atleast one medical officer and three staff nurses are available 24x7 in every PHC and ensuring that institutional delivery services with a basic emergency obstetric care package and a newborn care corner were put in place.

There are limitations with measuring achievements on this front. One problem is the denominator; a large number of CHCs and SDHs slated to be FRUs only reached the 24x7 PHC level, and hence these needed to be included. Secondly, the measure of 24x7 health facilities in some cases became the appointment of three staff nurses which could be misleading, because there could be round the clock availability of the appropriate RCH services without the nurses, and conversely the availability of nurses without the services. To overcome this issue, a minimum number of institutional deliveries became the measure, but this could under-report achievement if the low case loads were due to other contending providers or low population density in the catchment area. The levels of achievements given below, may be read keeping these issues in mind.

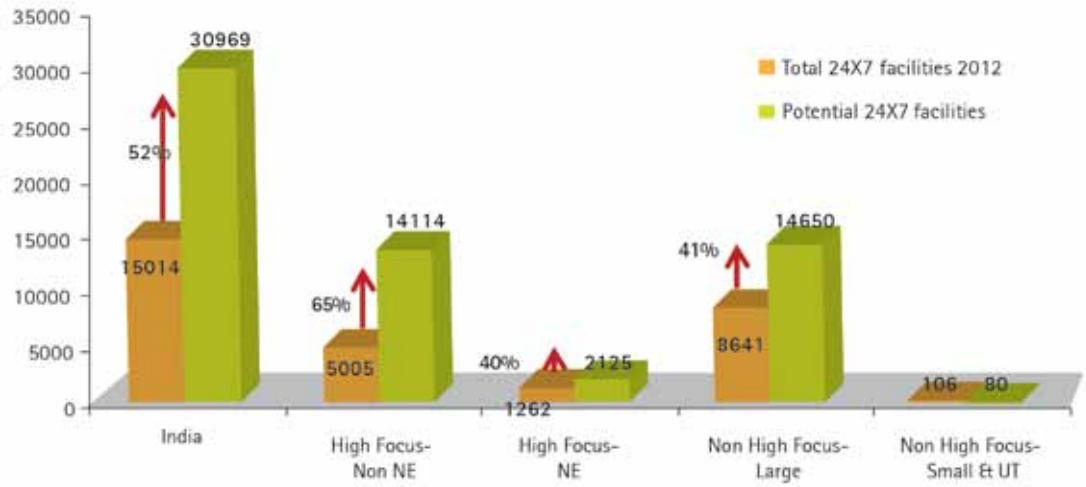
The total number of 'potential' 24x7 public health facilities is 30,969 This includes 23,887 PHCs and 4,809 CHCs, plus 1,234 "other" primary health care facilities, 1,039

"other" sub-district facilities, and excludes district hospitals. Of these 30,969 facilities only 2,243 facilities (1263 PHCs and 980 CHCs) could qualify by any measure to be called 24x7 facilities when measured at the baseline. Over the last seven years, this number grew to 15,014, a fivefold increase, but is still 48% of the target. This perhaps explains the differing perceptions of achievement between those who have worked hard for this 546% increase and those who see the achievement as having fallen short by 52%.

Again as we saw with FRUs, there is a much higher shortfall of 65% in the high focus states, though there is a much higher percentage of growth as well.

Of the 15,014 sub-district facilities functioning on a 24x7 basis, 64.6% are PHCs (including APHCs and others), 29% CHCs, and 7% are facilities above CHC level but lower than district level. Though PHCs form the largest share of 24x7 facilities, they also represent the largest shortfall from the potential 24x7 facilities as out of 23,887 PHCs only 8,475 PHCs are functioning as 24x7. This shortfall is only 6% for CHC- but then the target for CHCs was FRU status. Clearly there is a need to examine the strategy for further strengthening the PHCs in terms of the package of services it is configured to deliver, appropriate and adequate human resources needed, and in terms of prioritisation of PHCs to be taken up first for strengthening.

Figure 7: 24x7 facilities- Established and shortfalls



Source: NRHM State wise Progress as on March, 2012

Table 3: Facilities functioning - 24x7 as on March, 2012

		Facilities that are considered 24x7 level of functioning				
	Total created facilities in India	India	High Focus- Non NE	High Focus- NE	Non High Focus- Large	Non High Focus- Small & UT
APHCs+ PHCs+ others	25,121	9,709	2,835	1,008	5,811	55
CHC	4,809	4,266	1,948	200	2,068	50
Above CHC - below district level	1,039	1,039	222	54	764	1
Total	**30,969**	**15,014**	**5,005**	**1,262**	**8,641**	**106**

Source: NRHM State wise Progress as on March, 2012 [3].

C. Improved Quality of Care in Health Facilities

One of the most important goals of the NRHM was improving quality of care in public health facilities. NRHM contributed to this goal in a number of ways which could be listed as follows:

a. **Adoption of the Indian Public Health Standards:** This defined not only the service package that each facility must provide, but also specified the minimum inputs required to ensure quality of care, in terms of infrastructure, equipment, skilled human resources, and supplies. It was an assurance to the states of financing the gaps between available levels of these inputs and the levels needed to achieve the IPHS norms. A substantial increase in these inputs was driven by facility surveys to identify gaps and then planning and financing to close these gaps. Quality standards have been defined with respect to clinical protocols, administrative and management processes and for support services. The Operational Guidelines for Maternal and Newborn care published by the Ministry of Health and Family Welfare comprehensively defined such quality standards for RCH care.

b. **Skill gaps and Standard Treatment Protocols:** Skill sets and standard treatment protocols required for provide quality RCH services and training packages that would provide these skill sets were designed. These include the Skilled Birth Attendance (SBA) training package for ANMs, the Navjat Shishu Suraksha Karyakram (NSSK) and the IMNCI packages for ANMs, the Home Based Newborn Care (HBNC) for ASHAs, and the Emergency Obstetric Care (EmOC) package for doctors. These training packages also introduced the standard treatment protocols in each of these areas.

c. **Hospital Management Societies (RKS) and Untied funds:** The mandatory creation of a hospital management society (Rogi Kalyan Samiti) and empowering this body with untied funds has allowed public participation also contributed to improved quality of care. RKS members were trained and sensitised on quality of care issues. Before the onset of NRHM, many states generated funds from user fees, however the untied grants to all public health facilities were made available under NRHM which reduced financial barriers to access of health care. This is clearly evident from the increased utilization of indoor and outdoor services at health facilities

d. **Quality Improvement Programmes:** NRHM also supports initiatives for building quality management systems. These range from formation of quality assurance committees which use check lists and periodic monitoring visits to assess quality gaps, to more structured quality management systems leading to a third party audit and quality certification- either using ISO 9001: 2008 or NABH. Till date, 82 facilities have been certified by ISO, nine facilities have been certified by NABH and 446 facilities are under process of certification.

Frequently Asked Questions

Q.1: What were the efforts taken under NRHM to recruit private sector facilities to contribute to health care delivery?

A. Prior to NRHM, the blindness control programme systematically used private sector capacity to provide services. Under NRHM a large number of partnerships with private sector hospitals were encouraged to expand the capacity and cater to the increasing

load of institutional delivery. One major form of engaging with the private sector was accreditation for JSY facilities- wherein those women opting for private sector services, would also be equally eligible for JSY financial support. As of 2012, a total of 8075 private sector institutions had been accredited for JSY. The bulk of these, 7289, are from the non high focus states. In the North East there were only 50 private hospitals and 673 hospitals in the other high focus states could be accredited- largely a reflection of low availability of private sector hospitals willing to engage in areas where they are needed most.

In addition a modest number of private sector hospitals in eight states have become partners to provide a package of free obstetric care at delivery to women below the poverty line both for normal delivery and for emergency obstetric care. The prototype of this is the Chiranjeevi model of Gujarat.

Another major effort at increasing private sector participation is the outsourcing or management of primary health centres in remote and difficult areas, to carefully identified non government agencies that were available, competent and motivated to make such an effort. This has been used most widely in some of the challenging locations of the North East.

All the other efforts at public private partnerships under NRHM are to recruit additional management or technical capacity for the provision of specific services that supplement and contribute to those services provided by public hospitals-such as outsourcing laboratory or radiological services, or management contracts for emergency ambulance services under the "Dial 108" or the "Janini Express" approach.

2. What was the effort taken under NRHM for making AYUSH services more widely available?

A. One of the core strategies of NRHM was to promote co-location of AYUSH services with other mainstream health facilities, so that people have a better access to AYUSH, a choice between systems and so that the human resource and infrastructure can be shared and synergised to achieve NRHM goals. AYUSH services are collocated in a total of 15,534 health care facilities. This includes 451district hospitals, 2,547 CHCs, 404 sub-district hospitals, 8,507 PHCs and 3,627 equivalent primary care facilities.

Under this scheme 10,995 AYUSH doctors and 3,894 paramedical staff have been appointed, with over 55% of these doctors being in high focus states AYUSH qualified personnel are also serving as medical officers in a number of PHCs where there are no MBBS doctors available. This was part of an effort to make PHCs functional where lack of manpower had been a deterrent in the provision of services. Some states like Chhattisgarh and Assam developed a three year programme to create a mid-level care provider, thereby enabling many PHCs to become functional.

Q.3 One question often raised is the credibility of the numbers given out by NRHM with respect to its achievement. These numbers do not always match with negative reports in the media and by occasional reports from many civil society portrayals? How do we understand these differences in perception?

A.3 Outcome data quoted here are by independent external surveys- and usually more than one of such surveys corroborates these numbers. There are always cautions about interpreting any data, but these are undoubtedly some of the most reliable available in any developing nation. On output data too most evaluation studies would concur with this picture.

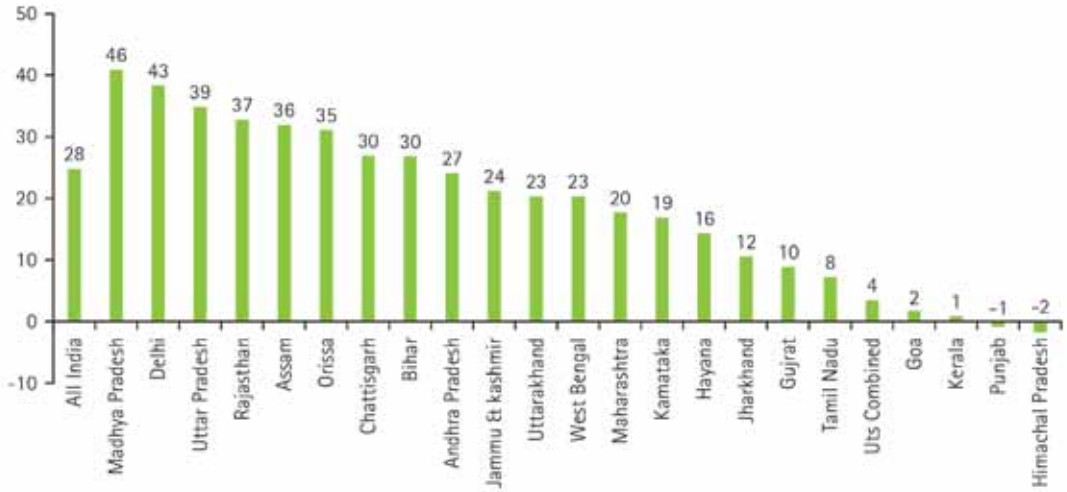
The issue with respect to media and other anecdotal reports is that given the huge remaining gaps, one may find enough evidence of programme failures and it is their task to point these out. This does not however contradict the big picture as portrayed by NRHM either in numbers or in quality and is perfectly compatible with it. If sample surveys are large enough and data is interpreted with health systems contexts in mind, one may better appreciate the work done and perceive the gaps in context. Quite often reports and studies point out the gap between the services and inputs available in a facility- and what should be there as per norms. But if every facility would have achieved its norms in service delivery and in human resources, equipment and supplies we would be quite near UHC. This is an ideal. A more practical and fair assessment is to measure improvements against the baselines. The implementers contention is that while one observes that "the glass is half -empty", we also need to understand what it takes to make it half-full, if we are serious about moving towards universal health care.

2. Universalising Access to Safe Delivery Services:

One of the major interventions for reducing the maternal mortality in India is promotion of institutional delivery and ensuring access to a skilled birth attendant. Janani Suraksha Yojana (JSY) was launched under NRHM for providing financial support to the women to come to the health facility for delivery, and to the ASHA to support her (Details in Box 2). The women from families below the poverty line and delivering at home only get a part of this benefit. This scheme has resulted in a steep rise in the proportion of pregnant women delivering in the public health facilities/institutions.

The Institutional Deliveries in rural areas have improved from 39.7% in 2005 to 68% in 2009, an increase of 28.3% (CES, 2005- 2009) [4]. However, in urban areas despite improved access to facilities and availabilty of Janani Suraksha Yojana, the increase was only 7.1%; from 78.5 to 85.6%. Thus, though Janani Suraksha Yojana is the major contributor to this increase in institutional deliveries, other dimensions of NRHM such as demand generation and health promotion through ASHAs and the strengthening of

Figure 8: % Change in Institutional Deliveries (Rural 2005-09)



Source: Coverage Evaluation Survey 2009 [4]

public health facilities particularly in rural areas, have also contributed significantly to this achievement.

It is worth noting that the 11 states which had the weakest performance at baseline, have all shown substantial increases in Institutional deliveries. Six states accounting for the major part of maternal mortality, reported an average increase of 34% (range: 28% in Bihar to 43% in Madhya Pradesh).

Frequently Asked Questions

Q. How did NRHM contribute to the increase in public service for care at child-birth

A. *a) The RCH -II component of NRHM had three major innovations that contributed to his. Of these three, the single most important driver of change was the JSY (Box 2). The second major innovation was the scaling up of short courses for anaesthetist and obstetric skills to improve availability of emergency obstetrics care, below the sub district level. The third was the large scale introduction of skilled birth assistance training for nurses and midwives, which allowed them to provide a much higher level of care than hitherto. An extensive two day training on birth asphyxia management also helped draw attention and build skills to address this huge contributor to neonatal mortality.*

b) The second major change as part of NRHM was the scaling up of emergency response and patient transport systems. (Box 3).) RCH-1 had introduced, albeit with very limited success, a demand side cash transfer for supporting referral transport. In RCH-II this was incorporated as part of the JSY incentive package for the ASHA. Using the flexibility afforded by NRHM financing, most states were able to devise a variety of publicly financed emergency response or patient transport systems to bring the pregnant women to health facilities, enabling early management of obstetric complications. By the end of the NRHM period a standard model with costs was emerging across the nation, which not only solved the problem of emergency transport for pregnancy, but brought attainment of universal access to emergency medical care for all types of emergencies that much nearer.

c) The third major role of NRHM was its contribution to strengthening all public health facilities, especially the primary health centers and the block level hospitals. No doubt these facilities needed to be strengthened not just for RCH but for all types of health services. The urgency of responding to the demand for RCH services, primarily on account of JSY as well as a conscious prioritisation of attainment of maternal & child survival goals brought the development of 24x7 PHCs & FRUs into focus and this reflicted in increased access to RCH services. Further the scheme structures to support capacity development and monitoring of RCH services were in place, whereas similar structures for non communicable diseases were still in their pilot phase.

d) A fourth major initiative under NRHM, introduced in 2011, was the (Janani Shishu Suraksha Karyakram (JSSK). An add on to the JSY, this scheme makes it mandatory for all states to not only withdraw all user charges for pregnant women and newborn, but also eliminate all out of pocket expenditures on diet, transport, medicines or any other aspect of care for a woman in labour or a sick newborn, accessing public health facilities. This is historic step forward, as the public health system was for the first time going beyond mere withdrawal of user fees to a planned elimination of all out of

pocket expenditure. By pragmatically limiting the initiative to only care for a limited subset of health care, the system could test the ground for expansion of this approach to increasing packages of health care in a phased manner.

Box 2: Janani Suraksha Yojana (JSY)

This JSY scheme entitles the pregnant woman to a package of Rs. 1,400 if she delivers in an institution and Rs. 500 if she delivers at home. This financial support enables and empowers the pregnant women to access a facility for care during child birth. In addition Rs 600 per delivery is provided to ASHA for promoting safe delivery, arranging the transport and if possible escorting the pregnant woman.

The number of JSY beneficiaries at country level, increased from 7.34 lakhs per year in the first year of the programme to 109.3 lakhs in 2011-12. The total number of beneficiaries as of March 2012 had reached almost 518.9 lakh women. This scheme accounts for a high proportion of the RCH budget, and represents a significant transfer of resources to the most vulnerable sections of society.

The scheme envisaged that other parallel inputs would strengthen and prepare the facilities to meet the increased influx of delivery admissions that JSY would lead to. However, many evaluations have shown that the capacity of health facilities to provide high quality of care has not made progress at the same pace as the increase in institutional deliveries. Furthermore, the distribution of the case loads was skewed; with 20% of the facilities catering to over 90% of the institutional deliveries. Though access to skilled birth attendance was much better ensured, persistent out of pocket expenditures could easily exceed the cash transfer under JSY, especially if there were complications.

Responding to these observations, the NRHM launched a further complementary innovation- the Janani Sishu Suraksha Karyakram (JSSK). This scheme entitles free and cashless services for all pregnant women opting for institutional delivery in government facilities. The free services are also extended to sick neonates for essential health care till 30 days after birth. And "free" is explicitly defined to mean the elimination of all out of pocket expenditure including on hospital, diet and the transport back home. JSSK entitlements are now available in all states of the country.

The NRHM also carefully prepared a short-list of health facilities which were handling greater case loads, or which were essential for prompt access. Often referred to by practitioners as "delivery points", these health facilities were then prioritised for capacity development and improving quality of care.

Other than the direct impact on improving access to skilled birth attendance and emergency obstetrics care, JSY has also helped in increasing access to better antenatal, post natal care and contraception services. It also brought a demand side pressure on many public health facilities, which had gone into disuse, forcing open their doors, and welcoming this set of users, which in the later years of NRHM led to a general increase in outpatient and in-patient services for a wider spectrum of health care needs.

Box 3: Emergency Response and Patient Transport Systems under NRHM.

Till the year 2005 no state had a state-wide publicly financed emergency response or patient transport systems. Public Facilities did have ambulances, but these were used infrequently for patient transport, rarely for emergencies and hardly ever for pregnant women. Two or three

states had experimented with outsourcing of ambulance services to local NGOs. The only scheme for improving access to transport of pregnant women was cash transfer under RCH-1, which was integrated into the JSY package under NRHM.

Since the launch of NRHM, as many as 17 states and union territories have established a state-wide emergency response and patient transport system and another six states are in the final stages of launch. The few major states that remain are also likely to join in within the next year.

Table 4: Referral and patient transport services under NRHM

Sl. No.	State	No. of "108" Ambulances	No. of "102" Ambulances	Total No. of Vehicles in the State	No. of ambulances per lakh population
1	Andhra Pradesh	802		802	0.95
2	Gujarat	506		506	0.84
3	Uttrakhand	140		140	1.38
4	Karnataka	517		517	0.85
5	Tamil Nadu	531		531	0.74
6	Assam	284		284	0.91
7	Himachal	112		112	1.63
8	Goa	33		33	2.26
9	Meghalaya	42		42	1.42
10	Chhattisgarh	208		208	0.81
11	Madhya Pradesh	102		102	0.14
12	Rajasthan	664		664	0.97
13	Punjab	240		240	0.87
14	Haryana		341	341	1.35
15	Kerala	50 (287)*	(283)*	50 (570)*	(1.86)*
16	Bihar	50 (504)*		50 (504)*	(0.53)*
17	Uttar Pradesh	988	972	1960	0.98
18	Daman and Diu	15		15	6.18
19	Dadra & Nagar Haveli	13		13	3.79
20	Jammu and Kashmir		800	800	6.38
21	Odisha	(280)*		280	(0.67)*
22	Maharashtra	(937)*		937	(0.83)*
23	Puducherry	10		10	0.80
24	**Jharkhand**	**(200)***		200	(0.61)*
25	**Delhi**	**101**		101	0.60
	Total	**5408 (2208)***	**2113 (283)***	**7521 (2491)***	
	Total (including sectioned but not purchased)	**7616**	**2396**	**10012**	
	Figures in brackets are total number of ambulances sanctioned but not yet purchased and the respective number of ambulance(s) per lakh population.				
	Source of information - EMRI Website				
	Source of information – 'NRHM Progress report as on June 2012'				
	Source of information – Nodal Officers of respective State Govt				

The main scheme in place is the "Dial 108" business model, which is essentially an emergency response and rescue system for all emergencies, with a centralised call centre that deals with medical, fire and police emergency calls. The ambulance vehicle has a trained emergency medical technician on board. It is adequately staffed and has a full fledged management team in place. The transport of pregnant women forms about one thirds of its users . Most importantly- the service is free to all users reducing the financial barriers to accessing healthcare.

Centralized call centres not only triage on the decision of whether to and what ambulance to despatch, but also have round the clock availability of a doctor to provide medical guidance to the emergency medical technician on board. Dial 108 model has become the dominant model. The NRHM finances all capital costs plus 60% of running costs in the first year of emergency transport services. Progressively the financial share is reduced and by the fourth year all running costs are borne by the state government. All dial 108 services established to date, are as public private partnership models- except in Pondicherry and Delhi. The major private ambulance service providers who have been partnered with are; GVK-EMRI in 12 states and ZHCL in two.

The Haryana model is significantly different; it has district level call centers and it prioritises transport for pregnant women, with other emergencies being handled infrequently. It makes full use of ambulances available in the public system and has a robust monitoring protocol. The Delhi model is similar, though with 41 ambulances it is only a small supplement to over 2,000 ambulances available in the private sector. Madhya Pradesh, Odisha, Bihar, Jharkhand, West Bengal and Dhemaji district of Assam, have the Janani Express or Mamta vaahan Business model. This involves a variety of tie ups with local transport providers, for providing cashless patient transport services- followed by reimbursement from the government. This model is effective in dispersed locations with poor availability of transport systems and can be usefully combined for non emergency patient transport with the "Dial 108" model as is being done in more and more states.

Beginning the year 2011-12 an increasing number of states are combining these three approaches for maximum efficiency, costs savings and better services.

3. Increasing Access and Utilization of Outreach Services

The sub-centre and the Mobile Medical Units (MMU) are the main forms of outreach services. The sub-centers have many functions but the two best monitored and optimally carried out functions are antenatal care and immunisation. Reliable and comparable estimates of both are available from the DLHS-III data (2003 and 2007) and the UNICEF's Coverage Evaluation Surveys (CES)(2005 and 2009).

Two of the most sensitive indicators that show 'access to' and 'utilization of' health care services are; the proportion of pregnant women receiving 3 Ante-natal care (ANC3) checkups and proportion of children <1year that are fully immunized as per national EPI schedule. As per the most recent CES, the ANC3 coverage in rural areas has improved from 36.7% in 2005 to 63.3% in 2009.

Similarly, as per CES 'full immunisation' in children of rural areas has improved from 47.4% to 58.5%, an increase of 11.1% over four years (2005 to 2009). Measles immunisation in rural areas improved from 61.8% to 72.4% over this same period. On the other hand in Urban areas, full immunisation remains unchanged at - 67.5% while measles immunisation coverage declined from 79.4 from 78.3% over the same period. A

Figure 9: % Change in women receiving 3 or more ANCs (Rural 2005 vs 09)

Source: Coverage Evaluation Survey 2009

similar rural-urban pattern is seen in DLHS-III as well. Whilst, the improve performance in rural areas could be seen as affirmation of the effectiveness of NRHM, at the same time it also makes a case for greater urgency in launching the National Urban Health Mission

The polio eradication is an example of one of the most successful outreach campaigns to be conducted in India over the past 14years. The country finally managed to get rid of indigenous wild polio virus transmission, and was declared polio free. Though the nation needs to remain on high alert, not a single case of wild polio virus has been reported for nearly past two years.

Frequently Asked Questions

Q. How did NRHM contribute to this improvement in outreach services?

A. The NRHM introduced five new strategies on scale which together contributed to this increase in access.

1. *The NRHM introduced a second ANM in the sub-centers. Of the total of 1,47,069 sub-centres, 95.8% are now functional with at least one ANM and 42% of sub-centres (62,178) have a second ANM in place.. We note that in some states which were well behind this, provision of a contractual ANM was also used initially to close the first ANM gap and to close critical gaps for nursing staff in Primary Health Centres (PHCs).*
2. *The NRHM created an untied fund of Rs 20,000 for every sub-center, half of this as maintenance grant and the other as untied funds. The maintenance grant was provided for sub-centres that were housed in a government building. Almost all sub-centres prioritised expenditure towards infrastructure improvement, and closed the gaps in equipment and supplies which could be managed at their own level.*
3. *The NRHM institutionalised access to ANM services by popularising the concept of a fixed monthly Village Health and Nutrition Day (VHND) in every village. As per the routine HMIS data, over 69.2 lakh such VHNDs are reported as being held in 2010-11,*

which works out to an average of about 5.8 lakh VHNDs per month as against 6.38 lakh villages.

4. *The NRHM introduced the Accredited Social Health Activist (ASHA) who worked with communities to facilitate access to outreach services. There are currently 8,61,548 ASHAs [6] trained to mobilise women and children to access these services, provide counselling at the home level for improved health practices, and provide appropriate home based care for common illnesses with referral as necessary.*
5. *The NRHM enabled the scaling up of Mobile Medical Units. There are currently MMUs in place in 442 districts of the country of which 60.4% are in high focus states (including North eastern states) and 37% in large non high focus states. Most mobile units reach Antenatal care and immunisation services to remote areas, whereas some others provide referral support to peripheral health workers.*

4 Chapter

Disease Control Programmes Under NRHM

One of the problems faced by the public health sector, that the NRHM was called upon to address, was the poor integration of the several vertical disease control programmes that were being implemented. Six of the major National Disease Control programmes were integrated under NRHM; These were the Revised National Tuberculosis Control Programme (RNTCP), National Vector Borne Disease Control Programme (NVBDCP), Integrated Disease Surveillance Programme (IDSP), National Leprosy Eradication Programme, (NLEP) National Programme for Control of Blindness (NPCB) and National Iodine Deficiency Diseases Control Programme. The National AIDS Control Programme and the pilots of the non communicable disease programmes were not part of the NRHM or its financial sanctions.

1. Revised National Tuberculosis Control Programme (RNTCP)

Following integration with NRHM, systems response has improved with better laboratory support, more equipment, an improved human resource situation and robust information system. By the second year of NRHM (2006), RNTCP reached nationwide coverage. Over the last five years the detection and treatment of TB has substantially improved. The New Smear Positive Case Detection Rate increased from 66% in the first quarter of 2005 to 72% in 2011. Similarly, sputum conversion rates are over 90% and treatment success rate is 88% in the new smear positive patients as of 2011. Coverage of DOTS at community levels has also improved, with nearly 80% of those ASHAs reporting a TB case also providing DOTS [7] .

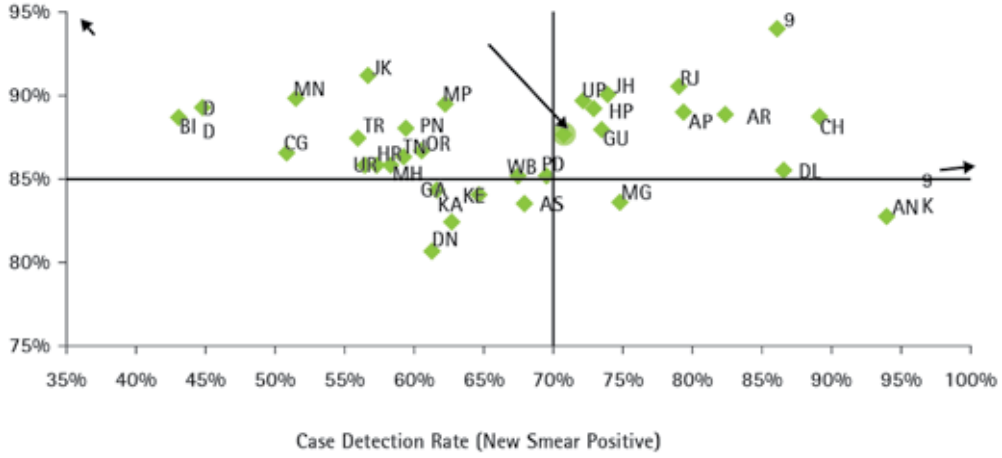
However, as shown in scatter diagram (Fig.10), the case detection rate continues to be lower than the targetted norms in as many as 21 states and much work is needed to improve on this.

2. National Vector Borne Disease Control Programme

(i) Malaria

- The reported cases in country reduced from 18.17 lakhs in 2005 to 12.79 lakhs in 2011 with an adequate Annual Blood Examination of about 10 crore persons. This is an 29.67% reduction in reported malaria cases.
- This improvement may be attributed to the introduction of and increased access to new technologies, the distirct level health planning and the changed human resources strategy under NRHM

Figure 10: Case Detection Rate and Treatment Success Rate in RNTCP areas 2011/2010



AP- Andhra Pradesh; AR- Arunachal Pradesh; AN- Andaman & Nicobar; AS- Assam; BI- Bihar; CH- Chandigarh; CG- Chhatisgarh; DD- Daman & Diu; DL- Delhi; DN- Dadra & Nagar Haveli; GA- Goa; GU- Gujarat; HR- Haryana; HP- Himachal Pradesh; JK- Jammu & Kashmir; JH- Jharkhand; KA- Karnataka; KE- Kerala; LK- Lakshadweep; MP- Madhya Pradesh; MH- Maharashtra; MN- Manipur; MG- Meghalaya; MZ- Mizoram, NG- Nagaland; OR- Orissa, PD- Puducherry; PN-Punjab; RJ- Rajasthan; SK- Sikkim; TN- Tamil Nadu; TR- Tripura; UP- Uttar Pradesh; UR- Uttarakhand; WB- West Bengal

- The new technolgies that made a difference were rapid diagnostic kits for early detection of P. falciparum, introduction of Artemisin based combination therapy or more effective treatment of P. falciparum and the distribution of Long Lasting Insecticidal Nets (LLINs) for prevention of mosquito bite. All three of these strategies could be scaled up because of increased access to these new technologies/drugs and availability of adequate trained human resources in form of additional multi-purpose workers recruited under NRHM and the ASHAs. The combination of improved technology and larger workforce rapidly enhanced the systemic capacity to control this disease.
- Human resources deployed specifically for the malaria programme also increased in form of State and District Consultants and Malaria Technical Supervisors. These were provided as additional assistance to malaria endemic states under NRHM.
- An external assistance of US$ 250 million under World Bank support and 88 million US$ under the Global Fund for AIDS, Tuberculosis and Malaria (GFATM) project have been approved for the next five year period.

(ii) Japanese Encephalitis

- Japanese Encephalitis (JE) is reported as part of a spectrum of viral infections leading to an Acute Encephalitis Syndrome (AES). While the reporting of AES cases improved from 6727 (including JE). In 2005 to 8247in 2011, the case fatality in reported cases declined from 25% in 2005 to 14% in 2011.
- Public health measures launched against this disease include strengthened surveillance through 65 Sentinel laboratories and JE vaccination for all children between 1 and 15 years of age. 111 districts are covered with the vaccination programme.
- A Surveillance Unit has also been established at BRD Medical College, Gorakhpur in Uttar Pradesh to monitor this programme.

(iii) Dengue and Chikungunya

- Dengue incidence has shown fluctuation over the years. In 2005, the reported cases were 11,985 with 157 deaths, whereas in 2011, the recorded cases were 18,059 with 119 deaths. While reported cases of dengue fluctuated the strengthened management of Dengue cases helped reducing the case fatality rate from 1.31% in 2005 to 0.66% in 2011.
- Diagnostic facilities for dengue were scaled up from 137 in 2005 to 311 sentinel Surveillance hospitals in 2011, and these are linked to 14 Apex Referral Laboratories. About 13.90 lakhs suspected cases of Chikungunya were reported in 2006, the first time in country after 30 years; however, only 18,509 cases have been reported in 2011.
- In many states the VHSNCs were mobilised for source reduction measures aimed at reducing vector density.

(iv) Kala Azar

- The number of cases has declined from 39,178 cases in 2006 with 187 deaths to 33,133 cases and 80 deaths in 2011. The figures show that case detection has increased while case fatality halved from 0.24% in 2011 against 0.48% in 2005.
- Part of the reasons for better case detection and reduced mortality are similar to the malaria programme; the introduction of and scaling up of new technologies, Rapid Diagnostic Tests and the oral drug Miltefosine in all endemic districts.
- But in addition to the above, the provision of free diet and financial support to patients to compensate for loss of wages during the period of hospital admission has improved compliance for full treatment. This is another area besides JSSK (for pregnant women and newborn) where pro-active measures to reduce financial barriers to healthcare access are making a difference.
- Incentive to ASHAs to enable increased case detection and improve treatment compliance has also been introduced and are helpful, though this, along with greater VHSC involvement, needs to be further intensified.

(v) Lymphatic Filariasis (LF)

- Out of 20 LF endemic states/UTs, 15 states/ UTs have achieved a microfilaria (Mf) rate less than 1%. However this continues to be over 1% in Assam, Bihar, Jharkhand, Karnataka and Dadra and Nagar Haveli. Out of 250 LF endemic districts in these 20 States/UTs, 186 districts have reported Mf rate less than 1% in 2010. Efforts towards Elimination of Lymphatic Filariasis have brought down microfilaria rate in the community of endemic districts from 1.24% in 2004 to 0.41% in 2011.
- The major reason for this is the introduction of the strategy for "Mass Drug Administration" with annual single dose of anti-filarial tablets [Diethyl Carbamazine (DEC) + Albendazole]. This was scaled up from 202 districts in 2004 to 250 districts in 2007 and the coverage of targeted population against eligible population has improved from 76% in 2005 to 86% in 2011.

- The Mass Drug Administration (MDA) round of 2011 started in November and is still in progress as some states have rescheduled the MDA between March to April 2012.

3. Integrated disease surveillance programme (IDSP):

The last seven years has seen the IDSP extend to all states and 618 districts. The IDSP makes provision for facility based collection and analysis of disease surveillance reports, which is followed by field investigation and necessary action whenever a disease outbreak is detected.

The NRHM contributed by providing support to recruitment and training of district level epidemiologists, entomologists and microbiologists for the programme. It also contributes to the human resources and infrastructure needs of the programme.

The IDSP programme has now made more data available on infectious disease incidence for a much larger set of diseases, and this information should now enable a more comprehensive approach to address the existing burden of infectious disease and protecting society from re-emerging or new infectious disease outbreaks.

4. National Leprosy Eradication Programme (NLEP):

Leprosy services were integrated to the general healthcare system during the 10th plan and during 11th plan, NLEP was integrated under NRHM. GoI has also undertaken Disability Prevention and Medical Rehabilitation (DPMR) through reconstructive surgeries.

At community level ASHAs are involved in leprosy programme acting as a point person particularly for referring suspected cases to health facilities, following up for treatment, and encouraging self care for prevention of disability in leprosy patients [8].

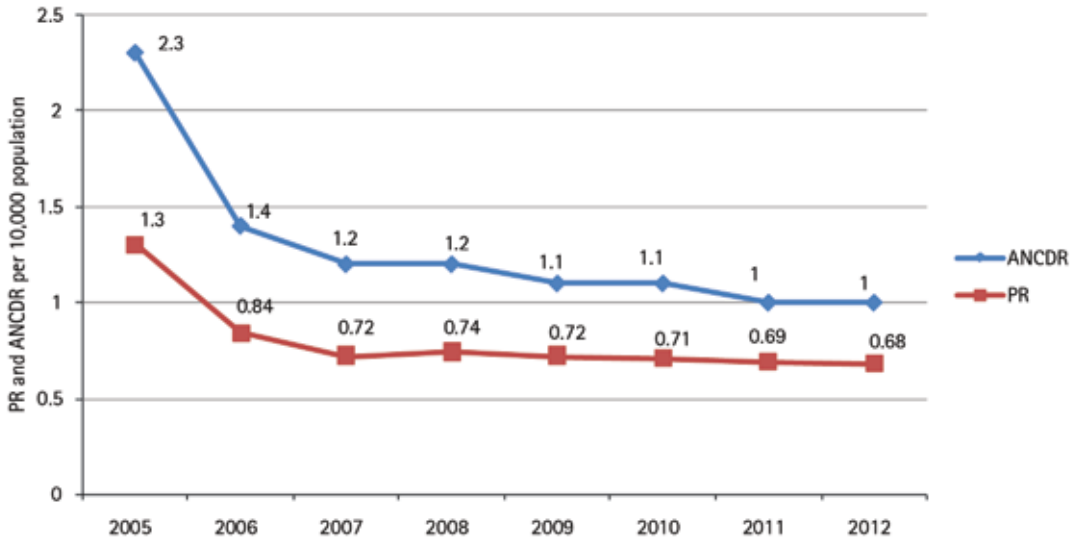
As of 2012, a total of 32 states/UTs out of 35 have attained the level of leprosy elimination. A total of 1.27 lakh new cases were detected during the year 2011-12, which gives Annual New Case Detection Rate (ANCDR) of 1.0 per 10,000 population. This shows heavy reduction in ANCDR of 2.3 during 2005-06. A total of 83 thousand cases are on record as on 1st April 2012, giving a Prevalence rate (PR) of 0.68 per 10,000 population which is nearly half the prevalence rate in 2005, when it stood at 1.3 per 10,000 [9].

5. National Programme on Control of Blindness (NPCB):

There has been a steady increase in the number of cataract surgeries performed during 2007-2012 and more than 90% of the targets set every year have been achieved. A total of 7,71,332 teachers have been trained for screening for Refractive Error (RE) in schools and the screening of school going children is done in conjunction with the School Health Programme in many States. Of the total school going children screened in the last five years, around 3% were detected with RE. A total of 2,21,351 corneas have been collected from 2007-2012 [10].

New initiatives were introduced in the 11th five year plan to move from a cataract centric approach to a more comprehensive programme by including other components like diabetic retinopathy, glaucoma, keratoplasty and childhood blindness in the programme. An NPCB-MIS has been initiated in the States for gathering relevant data under various components of NPCB. The increase in the coverage of the programme can

Figure 11: Trends in leprosy prevalence and ANCDR.



Source: NLEP Progress Report 2011-12; DGHS

also be attributed to the thrust on the development of eye care infrastructure such as Reginola Institute of Ophthalmology (RIOs), vision centres, eye bank, tele-opthalmology services as well as training of eye surgeons, MOs and ASHA workers [11].

6. National Iodine Deficiency Diseases Control Programme (NIDDCP)

The use of non-iodized salt has spread across India. The CES survey 2009 reports that 71% of the households across India are using iodized salt. This is a substantial increase from the 51% coverage reported in NFHS – III (2005-06) [12].

Establishment and strengthening of IDD control cells and monitoring labs across the States has been carried out. Initiatives like monitoring of salt by ASHAs who have been provided a salt testing kit, have been started in the endemic districts in the country.

Frequently Asked Questions

Q. What was the progress made and constraints faced in the integration of vertical disease control programmes into district plans? To what extent are weak health systems a limitation to the realization of successful outcomes of vertical programmes?

A. Although the integration process took some time, as of now, in most states, all programmes are under a unified district and state health society. Every state programme implementation plan and district health action plan includes strategies for each disease control programme. In particular, wherever implemented, vector borne diseases have benefitted most from active village committees and effective district plans. The strengthening of facility infrastructure and increase in human resources also contributed to improved programme outcomes. So too did the deployment of ASHAs and the strengthening of community processes.

However better integration in monitoring structures and sharing of information across programmes have been slow to develop, and the problems are as much technical as they are administrative. High burden diseases with greater propensity for transmission will continue to require nationally coordinated, well focussed interventions, as the recent outbreaks of acute encephalitis syndrome in Uttar Pradesh, or the avian and swine flu epidemics. But again as seen from the same examples, control of these diseases also needs sector wide action including action on social determinants. Thus a nationally coordinated thrust in addressing these diseases needs to be concomitant with horizontal integration at the district plan level. Most national disease control programmes require further innovation in technology and programme design combined with decentralised epidemiological inputs and use of integrated information at district and sub-district levels. It would also require a greater capacity for programme and financial management at local levels.

5 Chapter

HUMAN RESOURCES FOR HEALTH

The last seven years have brought about a major change in the way in which public policy has perceived and addressed the issues of human resources for health. The expansion of medical and nursing education in particular was not directly funded by NRHM, but catalysed by the changed policy environment. In the mid nineties, there was a perception that the density of medical professionals was nearly adequate, that further expansion and deployment of health professionals would be taken care of by the "market", and that number of government employees should be restricted including health care providers. As a result in almost all states, with the notable exception of Tamilnadu, there were no new posts created, and in the poorest performing high focus states, there were not even replacements of positions rendered vacant by retirement.

The NRHM design focused on the increase in human resources for health as central to the architectural correction. The Indian Public Health Standards called for a much higher level of skilled health workers in public health facilities. It perceived and re-positioned the main problems of workforce management, - such as the failure to find skilled workers to serve in rural and remote areas, or the problems of motivation and workforce performance. Rather than treating them as inherent inefficiencies of public sector employment, NRHM endeavoured to provide potential solutions. Most importantly it called for public action to redress the skewed health professional education, largely limited to the southern states.

We note that when NRHM started up, this suggested increase in human resources was often portrayed as excessive. Over the last five years and after the important and well researched contributions made by the High Level Expert Group on human resources for health and service delivery norms, the perception of IPHS prescriptions for human resources in public health facilities has changed. Today the IPHS norms for human resources would be seen as a modest mid-ground for immediate action, but remain insufficient for an adequate public sector in the long run. These differing perceptions can explain at least some of the delays in sanction of new posts, even where they were paid for under NRHM.

Described below are the main changes in the human resources for health scenario since the launch of NRHM. ASHAs have been discussed under Community Processes chapter

1. Expansion and Improvements in Medical, Nursing and Technical Education

A. Medical Education

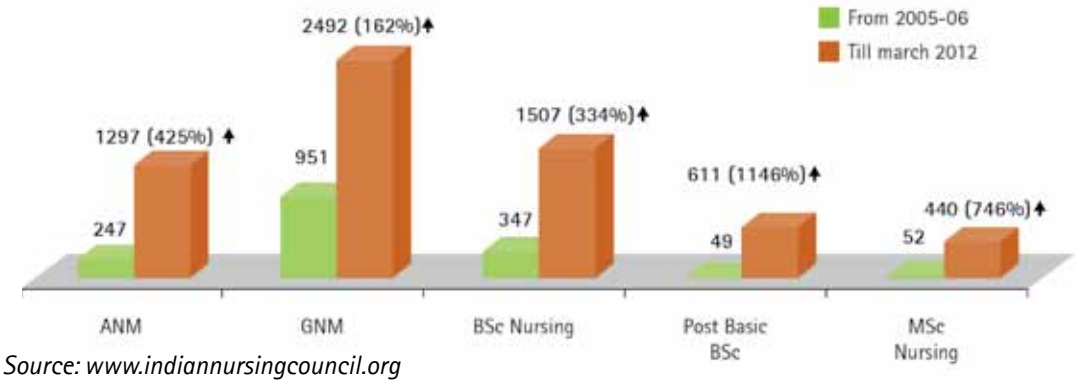
Over the past seven years, 106 medical colleges have been added with an increase of 15,043 medical seats in total. This is an increase of 46.2% and 59% in the number of colleges and seats respectively. In terms of geographical distribution however the greatest increase continues to be in the southern states of Tamil Nadu, Kerala and Andhra Pradesh, and; from 20 to 40, 14 to 23 and 27 to 37, respectively (http://www.mciindia.org). However new medical colleges have been set up in all states, including the northern states,. Much of this expansion is in the private sector, and with high tuition fees, so it remains uncertain how far the output would serve the needs of rural India. In the coming plan period the emphasis must shift to public financing or partnerships that prioritise the needs of under-serviced areas [13].

B. Nursing Education

Table 5: Total Increase in the Nursing Institutes from 2005-2012

Nursing Institutes	No. of Schools in 2005-06	No. of Schools in March 2012	Increase in 7 years	% Increase in 7 years
ANM	247	1297	1050	425.10
GNM	951	2492	1541	162.04
BSc Nursing	347	1507	1160	334.29
Post Basic BSc	49	611	562	1146.94
MSc Nursing	52	440	388	746.15
Total	**1646**	**6347**	**4701**	**285.60**

Figure 12: Increase in Nursing institutes from 2005 to 2012

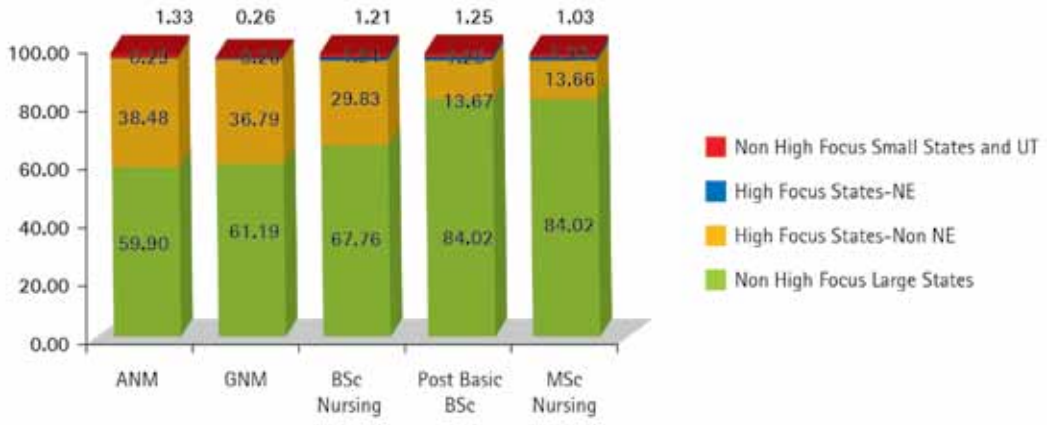


Source: www.indiannursingcouncil.org

Table 6: Total Nursing Institutes added between 2005 and 2012 (Geographical Distribution)

Nursing Institutes	Non High Focus Large States		High Focus States (Non NE)		NE States		Non HF Small States and UT	
	No. added	% increase	No. added	% increase	No. added	% increase	No. added	% increase
ANM	629	455	404	443	14	93	3	100
GNM	943	124	567	393	27	87	4	22
BSc Nursing	786	262	346	1048	14	350	14	127
Post Basic BSc	415	1012	133	2660	7	7	233	233
MSc Nursing	326	679	53	2650	4	5	250	250
Total	**3099**	**241**	**1503**	**546**	**66**	**132**	**33**	**189**

Figure 13: Increase in Nursing institutes from 2005-2012



Besides Medical colleges, 1,160 BSc nursing colleges, 562 post basic B. Sc nursing colleges, and 388 M. Sc Nursing Colleges were also added over past seven years. The numbers of such schools and colleges increased from 1,646 (247+951+347+49+52 respectively) in 2005 to 6,347 in 2012, which is an increase of 286% in just 7 years. A major percentage of the overall increase was in the already well-endowed non-high focus states, where it increased from 1284 in 2005 to 4383 in 2012 (241% gain). The large high focus states showed an increase in numbers of nursing and midwifery institutions from 275 to 1,778 (546%).

In the NE states, these institutions increased from a baseline of 50 in 2005 to 116 in 2012 (132%). In the small states, the increase is from 37 to 70 (89%). It is worth noting that out of the total increase of 4,701 nursing and midwifery institutions; 66% are in the large non-high focus states and 32% in the large high focus states. Much of the expansion of ANM schools and some of the nursing institutes is co-financed by the central government. The major part of nursing education increase is in the private sector or state government financed.

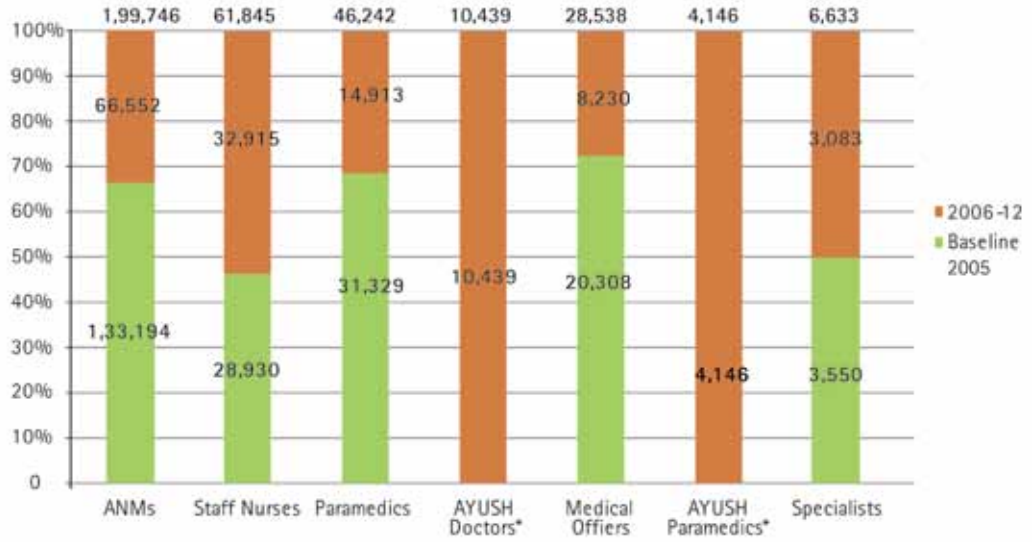
Although the gains in HRH are multifold, even then we are far short of our requirements, especially in states like Bihar and UP that were slow in rollout of NRHM. However this renewed thrust will make it possible for us to close gaps in nursing vacancies in the public hospitals in the coming five years.

We note once again - that these changes were not NRHM funded, but happened within and inspired by the policy environment that NRHM created- especially its role in changing the perception of human resource requirement and after a long break, revitalising public sector recruitment.

2. Increased Recruitment and Deployment in Public Service Delivery

One of the major contributions of the NRHM has been the addition of 1,40,278 contractual skilled service providers (as on 31/03/2012) to the public health services in the space of a mere six years [3]. This includes 3083 specialists, 8230 medical officers, 32,915 staff nurses, 66,552 ANMs, 14,913 paramedics, 10,439 AYUSH doctors and 4,146 AYUSH paramedics. In 2005, there were 1,33,194 ANMs, 28,930 nurses, 31,329 paramedics and

Figure 14: Recruitment and deployment of medical and paramedical staff in public health service from 2005 to 2012



Baseline figures not available

20,308 medical officers under the state government financing [14]. Some of the regular posts such as the Male Health Worker post were directly filled up under insistence from the NRHM, while the rest of the regular posts were responsive to the increased attention given to revitalization of primary health care. These measures have led to a substantial decline in the number of health sub-centers without ANMs and PHCs without doctors.

In addition to the increase in service providers, NRHM also deserves the credit for the induction of a number of non-clinical personnel such as programme managers, data managers, accountants and finance managers and other non medical management related personnel who have played an important role in improving the quality of programme management.

One of the challenges in the coming period is to decide on how to sustain financing for the expanded workforce. The most common understanding is that states must sanction regular posts and takeover this additional staff under their non-plan budget. An alternate view is that the center would share part of the increased burden of the workforce; at least for some of the public health cadre.

3. Skill Development of Existing Staff

One of the major activities under NRHM was training that aimed to increase the skill sets of existing service providers to enable provision of better quality of services. Some of the training programmes- known generically as 'multiskilling' - aimed to address critical deficiencies in specialist skills or specific technical skills by imparting available cadre of service providers the skills usually in the domain of another cadre. For example teaching medical officer the anaesthetic skills, or training health supervisors on microscopy.

A huge volume of trainings for different cadres have taken place over the NRHM period.

The table below shows various categories of trainings and staff tained since launch of NRHM. Number of doctors trained on BEmOC (5,004), CEmOC (3,329) at various levels and 10,022 doctors trained on MTP at state and district levels. The number of doctors and nurses trained on SBA is 60,571. A total of 2,67,377 doctors, nurses and Anganwadi

Table 7: Trainings conducted for HRH April 05 to Dec 011		
Type of Training (for doctors and nurses)		**No. of trainings**
Maternal Health		
BEmOC	National Level for trainers	548
	State and District Level for medical officers	4,456
CEmOC	State and District Level for medical officers	3,329
MTP	State and District Level	10,022
SBA	State Level for trainers	1,587
	District Level for ANMs and staff nurses	58,984
Child Health		
IMNCI	State Level- for medical officers as trainers	1,672
	District Level- for ANMs and anganwadi workers	2,65,705
SNCU	State and District Level- for medical officers	795
Family Planning		
Mini-lap	District Level for medical officers	10,284
NSV	District Level for medical officers	2,612
IUCD	State and District Level for nurses and ANMs	43,749

Source: NIHFW training database –April 2005-December 2011.

workers have received training on IMNCI while 795 doctors were trained on SNCU at state and district levels. At district level, number of doctors trained on Mini-lap (10284) and NSV (2612). Number of nurses and ANMs trained on IUCD at state and district levels is 43749.

There was also the gigantic task of training over 8 lakh ASHAs. There was a similar major effort on trainings programmes linked to public health programme management and national Disease Control Programs. While 1,749 programme staff were trained on Professional Development Courses and 3,489 district and state programme managers trained in public health programme development and management, two week induction training programmes was conducted for epidemiologists, entomologists and microbiologists recruited under IDSP.

4. Strategies of attraction and retention of skilled professionals in rural areas

One of the central issues of human resource planning is the challenge of getting skilled professionals to join public health systems and to stay and work in rural and remote areas. Since most doctors come from urban middle class backgrounds, they all experience three constraints to opting for rural services. These are 1) the economic loss-since rural stay would mean lesser opportunities for private practice and greater expenditure on maintaining the family's standard of living and expectations and 2) professional isolation leading to erosion of skills directly correlated to the limitation of resources and lack of opportunity for further academic development and 3) Social isolation - separation from families and cultural gaps between providers and the people they serve. Poor access and communication, inadequate residential facilities (shortages of water, electricity and supplies) and often, the threat of civil strife, pervasive in parts of several states also act as barriers to rural retention of skilled health workers. Administrative issues including

late payments of salaries, inability to obtain promotions or transfers to other locations, and having to adjust with local systemic and societal politics also affect the willingness to serve in these remote areas [15].

The problem of retention overlaps with the problem of availability, attraction and performance. NRHM has begun to change this scenario by putting in place multiple innovative strategies for attracting and retaining the skilled providers in the rural and remote areas. Initial results have been very encouraging. Following are few of these initiatives under NRHM:

1. Incentives (Financial and Non-financial):

Difficult area incentives' were introduced in most states for doctors, nurses and midwives working in remote areas. However, there is a wide diversity between states in categorizing "difficult" areas. Incentives are given as a difficulty allowance or as performance based incentives linked mainly to institutional delivery, C-sections, sterilizations, cataract surgery etc.

States such as Orissa, U.P, Bihar, Assam, Chhattisgarh, Kerala and Punjab have introduced various incentive schemes for attracting and retaining service providers in rural and underserved areas. The financial incentive for doctors for working in remote and rural areas ranges from Rs.100/- per month in Uttar Pradesh, Rs.1000/- per month in Tamil Nadu, Rs 3000 to 9000 per month in Himachal and a maximum of Rs.35, 000/- per month in remote areas of Chhattisgarh. Early indications from the CRM are that incentives-provided they are high enough help retain cadre in remote areas. However, as stand-alone measures, they would not attract new professionals into these areas.

Non-financial incentives tried in most states mainly relate to preference for post-graduate medical education and earlier promotion - States like West Bengal and Chhattisgarh have introduced group housing for health workers living in remote areas. Chhattisgarh also has a rural service cadre that packages a large number of financial and non-financial incentives. One of the operational problems in incentive schemes is categorisation of facilities into difficult, most difficult and inaccessible - in an objective and transparent manner so as to provide a differential incentive structure. Most states have completed this process.

2. Workforce Management

Tamil Nadu, Karnataka, Nagaland have shown that rotational posting in difficult areas has a major impact on health worker's morale and availability in difficult postings. Simplification and decentralisation of recruitment process in Haryana, Maharashtra, and West Bengal has yielded positive results in filling up vacancies.

Another approach to finding skilled health workers, for very difficult and remote areas, has been to outsource management of facilities in these areas, to non government agencies with a special motivation to work in such areas. These NGOs succeed where regular mechanisms fail, not because they pay higher, but because of a much more focussed and active support and motivation that they provide to their workforce, and also because they can recruit from an all India process.

3. Educational Strategies

Measures to preferentially admit only those students who are likely to serve in under-

serviced areas and moulding education to retain this commitment are also most successful.

In West Bengal, locality based selection of ANMs by a process involving the community/ panchayats and posting them back to the Panchayats helped recruit and train 10,000 more ANMs within four years. The "Swalamban Yojana (self-reliance plan)", in Madhya Pradesh provides scholarship against a bond for candidates from remote areas. Chhattisgarh provides a career path for Mitanins (ASHAs) to train as ANMs and nurses in their villages and over 400 Mitanins have opted for this.

Chhattisgarh and Assam have introduced 3-year diploma courses to create a new professional entity- what is called a mid-level care provider, with the objective of providing a large range of primary health services in remote, far-flung and rural areas where medical officers are unwilling or unsuited for posting. The experience from both these states is positive. Learning from the experience, the Government of India has proposed a three and a half year "Bachelor of Rural Health Care" (BRHC) course, to be taught in new schools affiliated to different universities in the country. This cadre would be posted in rural areas in 50,000 sub-centers to provide primary level health care as 'Community Health Practitioners'.

Training AYUSH graduates to work as medical officers in primary health centers has been used extensively to close medical officer vacancies in states like Chhattisgarh, Maharashtra, Orissa, and Gujarat.

Closing specialist skill gaps are the most difficult. The main innovation under NRHM has been the introduction of short term courses which provide some of the essential specialist skills as related to the needs of emergency obstetrics to medical officers who are working in rural areas. A specially crafted distance education mode family medicine programme organised by CMC Vellore, with NHSRC support has also been piloting an approach to impart a more comprehensive set of specialist skillls for the CHCs and PHCs. Similarly distance education approaches to in-service training for skills in the area of public health management and epidemiology also hold promise to close the skill gaps in these areas.

4. Regulatory

Compulsory rural bonds for those obtaining medical education from government colleges have been used successfully in Kerala, Tamil Nadu, Meghalaya and Nagaland to fill vacancies in rural areas.

In conclusion, though it would be premature to claim that NRHM has resolved the problem of lack of skilled health workers for remote areas, it has changed the perception about these issues. Earlier the inability to get doctors to serve in rural areas was considered as inherent and unavoidable. Now it is perceived as area for innovation and institutional reform. One can therefore be hopeful that these strategies will go a long way in addressing human resources for health shortages in Indian public health system.

Frequently Asked Questions

Q.1: Although NRHM has made strides in its commitment to achieving the norms set by the IPHS for staffing of public health facilities, why is there still a shortfall?

A. Given the wide variation in the baseline situation in human resources deployment and availability of skilled persons for recruitment, states had widely different pace

of improvement. Moreover, sanction of new posts and change or new recruitment rules require a change of policy perceptions and even then it takes months to years in most states. Also not only were high focus states short on human resources, even the institutional capacity to train existing staff or generate new human resources had been severely depleted and this takes time to build up. Thus the states that needed the second ANM most urgently, often took the longest time, to generate the ANMs who could then be recruited into these posts.

Staff addition under NRHM has almost exclusively been through the creation of contractual posts. This was reassuring in the initial years when the perception of HR requirements in the health sector had not yet changed. However, partly due to the absence of a clear long term policy commitment and financing plan for these additional human resources, states were unable to create the human resource management policies that would ensure the motivation and performance needed from a contractual workforce.

Therefore despite these impressive advances in numerical addition, the shortage of health personnel and the poor quality of support they receive remains the single biggest impediment to optimal functioning of existing health facilities and to operationalizing of new services like facility based care for sick newborns etc. Over 1 lakh skilled health workers were added onto the public health workforce in the eleventh plan period. We estimate that over three times this level would have to be added on, in the 12th Plan period, if we are to achieve its goals- and the burden of this addition has to be shared between the center and the states.

Q.2: One of the most obvious and remediable of problems is the irrational deployment of the workforce- where the deployment does not match the skills of the providers or the case loads and service needs of the facility. What are the barriers to rational deployment of healthcare workforce?

A: *At the level of governance, the systems of human resource management are not driven by a planned approach to achieving service guarantees in a well prioritised short list of facilities.*

In a context of shortages of staff at all levels, there is pressure to go by the preference of place of posting of existing medical officers and specialists so as to retain them in public sector.

- Lack of locality-based prioritisation of candidates for education and training programmes leads to a situation where there are many geographic areas, where no one would choose to work voluntarily.
- Training programmes fail to prioritise those candidates who are already providing services or have a clear commitment to go back after training and work in the area from where they were chosen.
- Non-availability of comprehensive "real-time" information on exact numbers, skills and distribution of HRH affects rational deployment of staff as well as all workforce management in the short term and long-term HR policy development.
- There are no systems of provider incentives financial or non financial, which provide either social recognition or economic gain for those who are required to put in far greater efforts. In a context of high staff shortages, positive workforce measures are more likely to yield results than purely disciplinary approaches.

In all these areas NRHM has made a beginning and is hopeful that with greater linkage of financing to administrative reform on these key determinants of human resource performance, the public health systems would perform much better.

Q.3: What measures are being encouraged to instil motivation and work culture in the public health system?

A: Selected measures that states have introduced with NRHM support are as follows:

- Standardization and streamlining of supportive supervision of staff at all levels. Not only are regular visits to the facilities needed, but gaps in skills and in quality processes need to be addressed on the spot. Most of these gaps can be solved locally; a few would require action from district and state level.
- Safe and supportive working environment and positive efforts at providing professional support and reducing social and cultural isolation. Also empowering staff at each level with the finances and powers and trust for them to show initiative and act to solve their own problems.
- Career development programs and clear career development opportunities and cadre pathways.
- Use of recognition and reward systems for health teams, with appropriate individual recognition. This in turn requires better systems of performance appraisal of facilities.
- Regular exchange and inter-district/state visits with programs for cross learning.

Of course the extent and scale of such innovation is limited- and no state has the entire range of measures implemented at scale. However what is noteworthy is that under NRHM, with institutions such as the annual Common Review Mission in place, these issues are now made visible and attracting a call for appropriate response from the health administrators.

6 Chapter

Community Processes

The NRHM brought about a significant change in the role and scope of community participation. Major areas of the NRHM initiative were the formation and financing of village health sanitation and nutrition committees, and Rogi Kalyan Samitis. These two bodies have substantially increased public participation in all public health care facilities ranging from the village level sub-centre to the district hospital. Important innovations such as community monitoring and civil society involvement in district health planning further enhanced community participation.

However, the most visible face of NRHM is the ASHA, a female community health worker. The ASHA programme has generated global interest and is the subject of several studies and evaluations. This section deals mainly with the ASHA programme.

ASHA programme

ASHA was originally coined, as an acronym for 'Accredited Social Health Activist', but is now used as a specific term in itself. ASHA, is a Hindi word that translates to 'Hope' in English. The ASHA is selected by the community, resident in the community, and is trained and supported to work in her village, to improve the health status of the community by securing people's access to health care services. The ASHA is considered to be a healthcare facilitator and provider of a limited range of healthcare services. Health rights form an integral part of her work which is focused in the areas of community mobilisation to improve health status, access to services, and promote people's participation in health programmes.

When the NRHM was launched in April 2005, the ASHA was intended primarily for the high focus states. Flexibility was provided to the remaining states to select and train ASHA in tribal and difficult areas. While the states in the high focus group began the ASHA selection and training within a few months of NRHM launch, the non high focus states approached this at a slower pace. In 2008, however all non high focus states barring a few opted to scale up the ASHA programme. In October 2011, the state of Himachal Pradesh where the ASHA selection was under litigation, opted to train its Anganwadi Workers for a set of skills related to community mobilization and the provision of community level care for mothers, newborns and children.

With the exception of the non tribal areas of Tamil Nadu, Goa, Puducherry, Chandigarh, and Daman and Diu, all states and UTs now implement the ASHA programme. Today the country has 8,48,940 ASHAs8 in place.

In terms of scale and coverage, there are few precedents to the ASHA programme anywhere in the world. In these seven years, the ASHA has become an inherent part of the health system.

Table 8: Selection of ASHAs in High Focus States as on 31st March, 2012

States	Proposed No. of ASHAs as per 2001 population	ASHAs selected	% of ASHAs selected against target	Proposed Density as per 2001 population	Proposed Density as per 2011 population
Bihar	87,135	83,301	95.6	1/853	1/1057
Chhattisgarh	60,092	60,092	100.0	1/277	1/326
Jharkhand	40,964	40,964	100.0	1/511	1/611
Madhya Pradesh	56,941	52,393	92.0	1/852	1/923
Odisha	43,373	42,597	98.2	1/721	1/806
Rajasthan	54,915	50,287	91.6	1/788	1/939
Uttar Pradesh	1,36,174	1,36,094	99.9	1/966	1/1139
Uttarakhand	11,086	11,086	100.0	1/569	1/634
Total	**4,90,680**	**476814**	**97.2**		

Table 9: Selection of ASHAs in North East States as on 31st March, 2012

States	Proposed No. of ASHAs as per 2001 population	ASHAs selected	% of ASHAs selected against target	Proposed Density as per 2001 population	Proposed Density as per 2011 population
Assam	29,693	29,172	98.2	1/782	1/902
Arunachal Pradesh	3,862	3,740	96.8	1/225	1/277
Manipur	3,878	3,878	100.0	1/410	1/490
Meghalaya	6,258	6,258	100.0	1/298	1/379
Mizoram	987	987	100.0	1/453	1/536
Nagaland	1,700	1,700	100.0	1/969	1/828
Sikkim	666	666	100.0	1/722	1/685
Tripura	7,367	7,367	100.0	1/360	1/368
Total	**54,411**	**53,768**	**98.8**		

Table 10: Selection of ASHAs in Non High Focus States as on 31st March, 2012

States	Proposed No. of ASHAs as per 2001 population	ASHAs selected	% of ASHAs selected against target	Proposed Density as per 2001 population	Proposed Density as per 2011 population
Andhra Pradesh	70,700	70,700	100.0	1/784	1/796
Delhi*	5,400	4,121	76.3	NA	NA
Gujarat	33,589	29,508	87.9	1/945	1/1032
Haryana	14,000	13,683	97.7	1/1068	1/1181
Jammu and Kashmir	10,000	9,700	97.0	1/763	1/913
Karnataka	39,195	33,750	86.1	1/890	1/958

Table 10: Selection of ASHAs in Non High Focus States as on 31st March, 2012					
States	Proposed No. of ASHAs as per 2001 population	ASHAs selected	% of ASHAs selected against target	Proposed Density as per 2001 population	Proposed Density as per 2011 population
Kerala	32,854	31,868	97.0	1/718	1/531
Maharashtra	59,406	59,316	99.8	1/939	1/1036
Punjab	**17,360**	**16,800**	**96.8**	**1/927**	**1/998**
Tamil Nadu **	**6,850**	**2,650**	**38.7**	**NA**	**NA**
West Bengal	**61,008**	**45,564**	**74.7**	**1/947**	**1/1020**
Total	**3,50,362**	**3,17,660**	**90.7**		

Table 11: Selection of ASHAs in Union Territories as on 31st March, 2012					
States	Proposed No. of ASHAs as per 2001 population	ASHAs selected	% of ASHAs selected against target	Proposed Density as per 2001 population	Proposed Density as per 2011 population
Andaman & Nicobar	407	407	100.0	1/590	1/601
Dadra & Nagar Haveli	250	208	83.2	1/680	1/732
Lakshadweep	85	83	97.6	1/396	1/166
Daman & Diu***	119	0	NA	NA	1/507
Total	**861**	**698**	**81.1**		

*Source – ASHA Quarterly Matrix April, 2012, *Delhi has selected 1ASHA per2000 population in certain identified sters, ** ASHAs have been selected only in the tribal areas *** Selection of ASHAs is under process*

Training of ASHAs:

The national guidelines stipulate that all ASHAs must receive 23 days of training in the first year and 12 days of training every subsequent year. So far, a total of seven modules have been designed for the training of ASHAs. Modules 1- 4 provide a knowledge base and introduction to health, covering a series of topics ranging from maternal and child health, to family planning, HIV/AIDS, adolescent reproductive and sexual health, National health programmes, AYUSH, and management of minor illnesses and first aid for burns. Module 5 focuses on building the skills of the ASHAs in establishing community rapport, empowerment and leadership.

Modules 6 and 7 in which training is ongoing, focuses on providing a range of essential skills that have potential to save lives and improve maternal, newborn, and child health through community level interventions. The training visualizes a stable accredited training teams at two levels- the state and the district. These teams are rigorously trained at appropriate national and state training sites. The competencies of Modules 6 and 7 are expected to be imparted in four rounds of training over a one year period. Most states have initiated the roll out of training in Modules 6 and 7, although the rate of progress varies substantially across the states.

To facilitate interpersonal communication, a 'communication kit' for ASHAs has been developed. This kit has been disseminated to the states, and is expected to be introduced at field level in the coming year.

Support structures for the ASHA.

To facilitate ASHA's work and make her more effective as a community health worker, a set of supportive structures has been put in place. These include: National and State ASHA Mentoring Groups, State ASHA Resource Centre, District Community Mobilizers/ Coordinators, Block Community Mobilizers/ Coordinators and ASHA Facilitators - (1 per 10-20 ASHAs). In some states one or more of these functions are played by existing staff, but contractual appointments for these positions have been essential for delivery of programme outcomes. At the village level, the Village Health Sanitation and Nutrition Committee (VHSNC), the Anganwadi worker (AWW) and the Auxiliary Nurse Midwife (ANM) provide necessary support to the ASHA. This supportive institutional network for ASHA programme has expanded rapidly at state level in the recent past.. States have increasingly become cognizant of the necessity of a strong support structure to enhance community processes. Most high focus states have established support and supervisory mechanisms at state, district, block and even sub-block levels. States of Uttar Pradesh and Madhya Pradesh have not yet established an ASHA Resource Centre, but have a dedicated team in place to provide state level support. While most of the High Focus and North East States have engaged ASHA facilitators, most non High Focus states, have no additional support systems. Instead, they rely on the existing programme personnel and structures to manage and support the ASHA programme.

Recently a clear set of indicators and programme monitoring tools have been introduced to measure progress and identify gaps in programme implementation. Plans to train support staff in the use of these tools for programme monitoring and supportive supervision are underway. This will help improve performance, not just of the ASHA programme, but the entire range of community processes.

Payment for ASHAs.

One of the most debated issues in the ASHA programme is the issue of payment to the ASHA. National guidelines for ASHA define her as a volunteer who needs to be compensated for her time in situations such as attending training programmes and review meetings, or escorting pregnant women to the facility, which would mean loss of a day's wage. Her main financial income would however be generated from performance based incentives that recognise her specific contributions. Issues of debate are the desirability of including a fixed payment, and the mode and route of payment.

The findings of the eight states ASHA Evaluation [7] indicate that the experience with payments varies widely across the states and is dependent on the nature of support provided to the ASHAs. Currently a substantial proportion of the ASHA incentives are dependent on the JSY and mobilization of children for immunization. Incentives from other sources such as DOTS, Leprosy, Malaria slides and referral for cataract, are difficult to deliver and made small contributions to the overall amount received. Most ASHA currently earn between Rs. 500 to Rs.1000 per month from this task. More than the fixed or performance based nature of payment, what correlates better with ASHA functionality is the actual take home amount received. The NRHM hopes to alter the incentive package so that the ASHA receives an average compensation of Rs 3000 per month.

In 2011, the Mission Steering group approved an incentive of Rs.250 for the ASHA to undertake a set of home visit for the mother and newborn for the provision of home based newborn and post partum care, to address the issue of neonatal mortality. The

evaluation showed that the nature of programmatic emphasis and quality of support is critical to improve outcomes. Most states have also provided identification badges, bicycles for increased mobility, passes for travel, staying arrangements at health facility,

rest rooms for ASHAs and help desks for patients referred by ASHAs, and recognition by way of annual ASHA awards. Some states such as Orissa and Chhattisgarh have made provision for reservation of seats and enabling ASHA to complete the required educational level for entry into ANM training schools.

Frequently Asked Questions (FAQ)

Q 1: What are the achievements of the ASHA Programme

A: The ASHA programme is a well studied component of the NRHM. While the studies range widely in scope, methods and outcome measures, one overriding finding is that the programme is the single most important instrument for community outreach and has significant potential for saving lives. Successive reports of the five Common Review Missions note that the ASHA is the public face of the NRHM and that her contributions in the community have enabled improved service access and use and that she remains active and enthusiastic, despite a multitude of problems faced.

A large scale evaluation of the programme in a sample of 16 districts across eight states10, offers important evidence with regard to the functionality and effectiveness of the ASHA. A key finding of the survey was that about 74% of the women with a child up to 6months had received services from ASHAs (for antenatal, delivery and newborn care) and about 71% of women with a child under two years with an episode of illness in the last one month had received services from ASHA. All states have provded the ASHA with drug kits although regular replenishment remains an issue.

Evaluation Study of NRHM in 7 States by Planning Comisison[16] also acknowledged ASHAs to be highly functional and playing an important role for improved utilization of health services and better health outcomes. The evaluation reported improved ANC care, institution delivery and post natal care as well as more appropriate health seeking behaviour in households where ASHAs visited regularly for active counselling,

Despite the gains, some gaps still remain and need to be addressed. These relate to reaching the most marginalised sections, and having the requisite skills and support needed to translate her functionality and motivation into hard health outcomes and greater community mobilisation.

Q. 2: Which of the ASHA's three roles is the most important Link worker and facilitator, Health activist and Mobiliser or community level care provider?

A. The evaluation from eight states [7] concludes that for an ASHA to be effective, all three roles are important and complementary, and the skill is in getting the correct balance between these roles. Functionality in one role is clearly linked with better outcomes in other two roles. ASHAs need to be active on community mobilization and have an activist character, to identify marginalized sections and help them access government services. Her access and credibility in these marginalised sections is enhanced by her community level care provision role which is more responsive to their felt health care needs, and which helps them to access health services such as getting immunization, or institutional delivery, or contraception which may not be their perceived healthcare priority. Also without the skills for community level care

provision her impact on improved child and maternal survival would be limited. Finally she requires a good quality of referral support, prompt refilling of her drug kit and better management of outreach services for her functionality as a facilitator to

translate into her effectiveness in achieving desired health outcomes. The evaluation notes however that a mechanical prioritisation of only the link worker function, helping with access to immunisation and institutional delivery fails to make full use of her potential for improved health outcomes and more important fails to reach the marginalised, even for these two core link worker functions

Q. 3: Is there persistent friction between ASHA, ANM and AWW?

. *The ASHA Evaluation from eight states10 shows no evidence of any significant level of conflict between ANMs, AWWs and ASHAs. The ASHAs, ANMs and AWWs receive support from each other and no longer feel threatened. The early conflicts induced by a lack of clarity in roles, and by competition for the same incentive, have been largely resolved at the field level. Thus for institutional delivery only the ASHA gets the incentive, and for family planning the ASHA almost never gets any.*

Q. 4: What is the future of the ASHA programme and the strategy for sustainability?

Some major policy reports that have substantial implications on the future of the ASHA programme include the XII plan approach paper, the report of the High Level Expert Group (HLEG), the Working Group on NRHM and the Steering Committee. All reports acknowledge the high levels of functionality of ASHAs at village level and strongly emphasize the continuing relevance of the ASHA and Community Processes components. Key recommendations of HLEG include the introduction of a second community health worker to address a larger package of health care needs at the community level and the transformation of the existing Village Health Sanitation and Nutrition Committees to take on additional responsibilities. These reports also emphasise the need to plan for a limited turnover of ASHA, which is both inevitable and desirable. There is also a need to introduce certification to ensure quality in training outcomes and to provide career opportunities for ASHAs who would seek to go beyond voluntarism to a career in health care. This would not only be an incentive to the programmes, but also expand the human resources available at the local level. But this needs to go along with increasing recognition that about half the ASHAs would prefer to remain as community health workers and must be provided the space and continued training and support needed for this. Indeed such community health work requires to be understood not only as some sort of transient arrangement made apologetically in lieu of availability of doctors and nurses but as the most appropriate care provider for this category of primary health care needs.

The ASHA would also be seen as emerging to provide leadership and support to the village health and sanitation committees, which need to be developed as a vehicle of addressing social determinants of health at the local level.

Q. 5: Under the NRHM over 4.8 lakh village health sanitation and nutrition committees have been established. How effective have these been and what is their future direction?.

A. *Experience with VHSNCs is varied across states, and many states took three to four years to get them going. Most effective VHSNC examples have developed them as vehicles for community mobilisation and for addressing social determinants related to access of marginalised or control of vector and water borne disease. Most states are*

moving towards more systematic capacity building programmes.

Where NGOs have been active in providing support, the main direction of VHSNCs have been for community monitoring. The main strategy of community monitoring as developed under the national AGCA (Advisory Group on Community Action) is to mobilise VHSNCs to monitor and score PHCs in the form of colur coded report cards which display the level of performance of each. These bring pressure to improve public health care services. The programme was limited to about a 100 blocks nationwide.

Q. 6: The NRHM promised to invest and work with non-governmental organisations in a major way. To what extent was this achieved and what were the barriers to taking NGO involvement to scale?

A. *There were a large variety of innovative efforts to involve not for profit NGOs and these are listed below.*

a. *Community Monitoring Programmes- across nine states- harashtra,Chhattisgarh, Tamilnadu, Rajasthan, Jharkhand, Karnataka, Assam, Orissa, and Bihar.*

b. *Outsourcing of PHCs in remote areas to motivated NGOs with the capacity to manage them and find the human resources they need. Arunachal Pradesh, Meghalaya, Manipur, Odisha and Karnataka.*

c. *Support to district planning and building capacity for district health planning- Jharkhand, Bihar, Odisha, Chhattisgarh.*

d. *Hosting ASHA resource centers and providing training for ASHAs Uttarakhand, West Bengal, and Jharkand. Involvement of Society for Education, Action and Research in Community Health (SEARCH), CHETNA, Child in Need Institute (CINI), Karuna Trust, and Foundation for Research In Community Health (FRCH) as national training sites.*

e. *Active participants in ASHA mentoring groups.*

f. *Providing training to Village Health Sanitation and Nutrition Committees- Karnataka, Rajasthan*

g. *Outsourcing of mobile medical units - Rajasthan, Uttarakhand, Maharashtra*

h. *Outsourcing of ambulance services- West Bengal.*

However none of these went to scale. The 12th Plan period affords us the scope to learn from these examples and scale up. The main barriers to involvement of NGOs in the 11th Plan period which are lessons for future NGO involvement are listed below

a. *The need to develop transparent and robust mechanisms of selection and financing of NGOs, so that effective and credible NGOs are able to participate as well and build their internal capacity to contribute.*

b. *The need to develop appropriate packages to recruit NGO support and implement programmes where internal capacities of the public health system need supplementation, such as in training VHSCs or RKS, or promoting rational use of drugs in public and private sector. This could often require appropriate capacity development in field NGOs.*

c. *The need to provide space for NGOs to experiment with innovative programmes especially in community health and for action on social determinants of health.*

7 Chapter

Health Care Financing

Goal of Increased Public Health Expenditure:

One of the most important goals of the NRHM was to increase public health expenditure on health targeted to reach 2 to 3% of the GDP from 0.9%.

The central concern of NRHM design was the ability of the public health care system to absorb and utilize the funds placed at its disposal for improved service delivery leading to better health care outcomes. Though action on determinants of health like provision of drinking water and sanitation, and nutrition and education were important, most of these expenditures took place outside the department of health. NRHM's accountability was more limited to the action in health care delivery including preventive and promotive health care. Tertiary health care and health professional education though very much part of the expenditures of the department of health, are not directly funded under the NRHM scheme.

Though still short of the 2 % of GDP mark, public health expenditure has increased at a faster rate than the pre-NRHM period. The Government expenditure on health as a share of GDP increased from about 0.9 per cent in 2004-05 to 1.04 per cent in 2011-12. When broader determinants of health (drinking water, ICDS and mid-day meal) are added, the total public spending on health in Eleventh plan comes to 1.97 per cent of GDP.

Presented below are the details as regards to NRHM expenditures.

Increased Funds Flow under NRHM

Over the last seven years, the central government has made a total release of Rs. 66,560 crores under NRHM for the explicit purpose of financing their state plans to strengthen public health services. This includes release of funds for RCH and disease control programmes.

There has been a steady increase in fund release and expenditure, at both national and state levels. Figures 13 and 14 show allocation and expenditures at national level and the performance of the large high focus states (see). It is evident that although there was an initial problem in absorbing funds, it was largely overcome in subsequent years. Much of this poor absorption and later catch-up is due to the longer cycle; time taken for completing and booking capital expenditure on infrastructure.

The utilization rate of RCH Flexi pool increased from 28.2 per cent in 2005-06 to 113 per cent in 2011-12 and NRHM flexi pool utilization increased gradually from 4.3 per cent in 2005-06 to 107 per cent in 2011-12 .

Figure 15: NRHM Release and Expenditure (India)

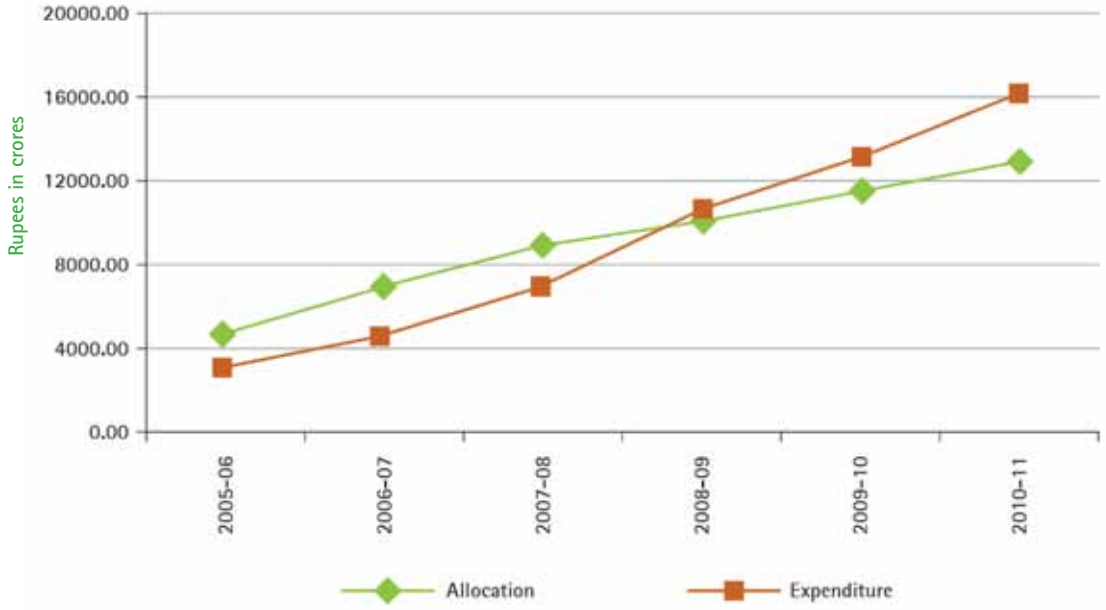
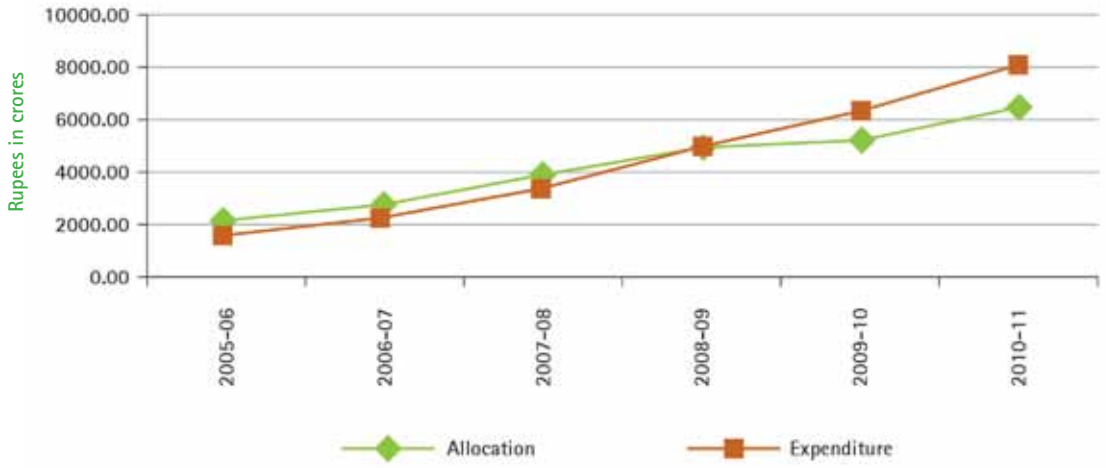


Figure 16: NRHM Release and Expenditure (EAG)

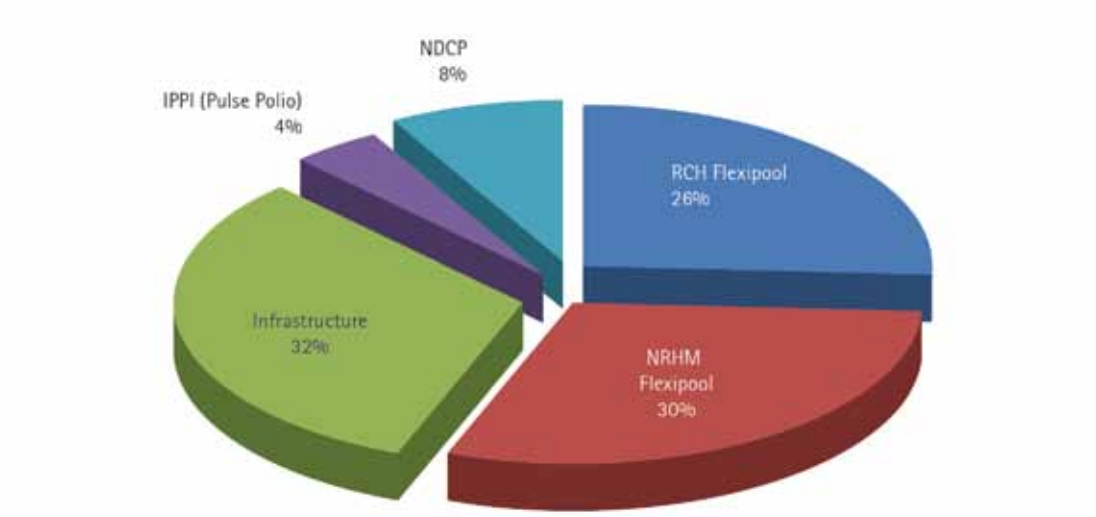


Source: MIS report as on 30th September 2011.

NRHM funds were released to states through the state health societies as four components; RCH flexi-pool, Mission flexi-pool, Immunization (including Pulse Polio) National Disease Control Programmes. Under RCH flexi-pool the total amount released to states in these seven years was Rs. 18,688 crores and under Mission flexi-pool the total amounts released was Rs. 20,749 crores. For Immunization and Pulse Polio, a sum of Rs. 3,066 crores has been released. In these seven years, for disease control, the amount released was Rs. 5,064 crores. In addition through the treasury route, Rs. 18,995 crores was released for infrastructure maintenance. The breakup of NRHM releases and expenditure by these five components are depicted in the figures below.

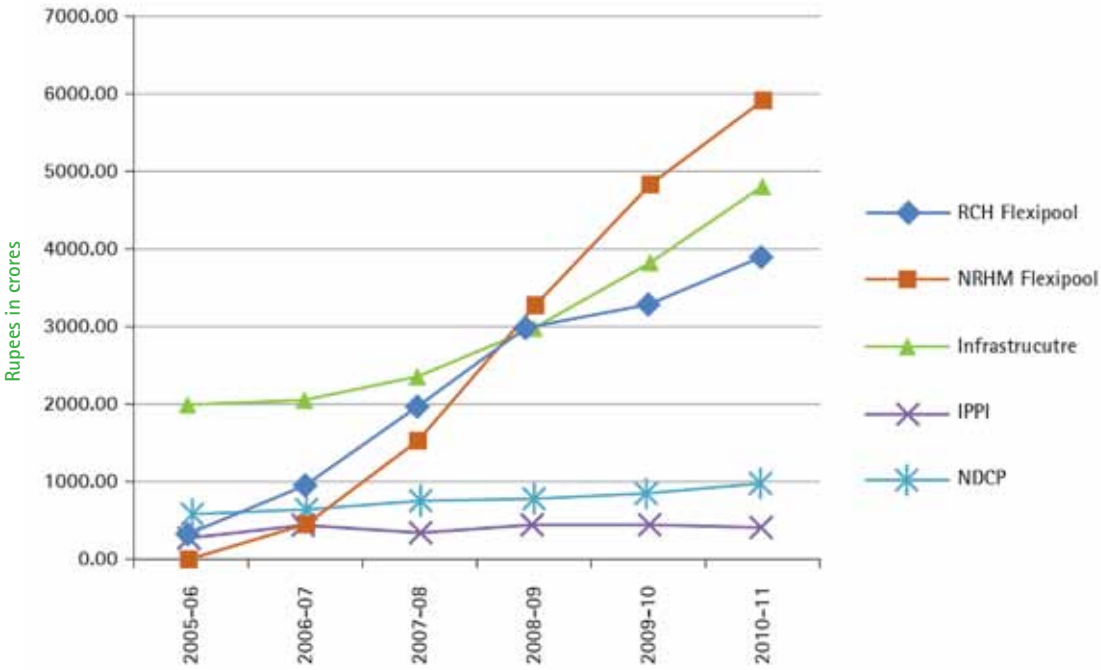
As can be seen from the figures, there was a sharp rise in RCH expenditure, but the rise was maximum on infrastructure and even more on NRHM flexi pool. Overall for the

Figure 17: Breakup of NRHM expenditure by components



Source: MIS report as on 30th September 2011.

Figure 18: Trends in NRHM Expenditure by Components



Source: MIS report as on 30th September 2011.

period of 2011-12, against the release of Rs13, 877.70 crores, Rs13,593.36 crores was spent which is close to an overall fund utilization rate of 98%.

Social Protection and Public Health Sector

In monetary terms central spending in the eleventh plan period was 2.5 times and state spending increased by 2.41 times as compared to the tenth plan period. Despite this Government expenditure on health as a share of GDP increased only marginally; from

0.9 per cent in 2004-05 to 1.04 per cent in 2011-12 [19]. The good news is that even with this limited increase, Government expenditure on health as a percentage of total expenditure on health (Public + Private) increased from 19 per cent in 2005 to 30.3 per cent in 2009 [17,18] which is the more important consideration in terms of social protection. Of course one must relate and understand this in the context that 70 per cent of expenditure on health is still private.

One interesting fact is that total health expenditure in this period has decreased from 5% to 4.2 % of the GDP. This could have many reasons- but it would certainly explain the private sector seeking public financing to increase their share of health care provision. Though there is an increase in expenditure on private pre-paid plans as a percentage of private expenditure on health from 0.8 to in 2005 to 4.6 in 2009 [17,18], the major part of private expenditure on health is still completely out of pocket even in 2009 [17,18] Further a considerable part of this expenditure in the private sector could be from informal service providers (in some estimates it is about 30%) or unnecessary care which is provider driven, and hence would not contribute to health outcomes. When it comes to situations where patients are more likely to face catastrophic health expenditure, the role of public sector in providing such care increases even more.

Thus though all this is still inadequate for reversing the impoverishing effect of out of pocket health expenditures, it does indicate the need to pursue increasing public expenditure on public provisioning of health care as the main avenue and one of the most efficient and effective ways of achieving better social protection in Indian context.

Table 12: Health Expenditure in India (2005-2009)		
Expenditure on Health	2005	2009
Total Expenditure on Health as a percentage of GDP ,	5	4.2
Government Expenditure on health as percentage of Total Government Expenditure [17,18]	3.5	3.7
Government Expenditure on health as a percentage of Total Expenditure on health [17,18]	19	30.3
Private Expenditure on health as a percentage of Total Expenditure on health [17,18]	81	69.7
Out of Pocket Payments as a percentage of private expenditure on health [17,18]	94	86.4
Expenditure on Private Pre-paid plans as a percentage of private expenditure on health [17,18]	0.8	4.6
Out of pocket expenses as a percentage of Total expenditure on health [20]	68	60

Frequently Asked Questions FAQs

Q.1: Why is it that many states have found it difficult to absorb the money given to them? And how did NRHM address these barriers?

A: Absorption was more of a problem in the early years of the NRHM. In the last two to three years this has picked up. Looking at the pattern across the states we list six features that correlate with better absorption:

i. Better financial management - States have put in place financial professionals at state, district, block, and (in some states) at the PHC level. States have also adopted e-transfer of funds and Tally ERP-9 software. Training on accounting and financial management has also been provided at many levels. All these means of improved

financial management have greatly helped the speeding up of funds flow, absorption of funds and tracking expenditure in details. .

ii. *More decentralization - In the funds flow through society mode, the power of authorizing and actually undertaking the expenditure moved down to health facility and village level, whereas under the treasury route the Drawing & Disbursing Officers (DDO) are limited only to the block level.. The society mode of operations is not aimed at replacing the treasury system, but targets those specific areas of decision making and expenditure which is immediate and localized in nature. Addressing such needs through the treasury system might not be very efficient with respect to the timeliness and appropriateness of the response. However for expenditure through the society route clear guidelines for expenditure on each head and the level of flexibility between heads were needed, and where there was delay in developing or disseminating these guidelines, expenditure rates were affected. There is however justified criticism that the powers to make financial decisions were not decentralised enough, and there were far too many state level controls. On the other hand we also know that without improvements in governance, especially in the methods of selection, appointment and review of the key district health officers, decentralisation could lead to leakages and misuse.*

iii. *Need to separate revenue expenditure from capital expenditure - Utilization of capital expenditure for all states increased dramatically as compared to the pre-NRHM period while the revenue expenditure remained steady over the last decade. Given the longer expenditure cycle of procurement and civil work (construction/ renovation) of around two to three years, the booking of expenditures, (implying absorption of funds) increases in the later years as funds related to the civil works and procurement undertaken after 2007-08 started being booked by the close of 2009-10. However since Utilisation for the entire amount is not shown, later releases decrease precisely at the time when absorption capacity increases.*

iv. *Normative financing vs differential financing - States have been allocating funds to facilities and districts on the basis of set norms which leads to allocation of a fixed amount of funds to a particular category of facility irrespective of infrastructure position and requirement, status of human resources and caseloads handled. For example over 90% of the increase of caseloads due to JSY was handled by less then 15% of the facilities. But all facilities get the same normative untied grants and human resources. Given these divergences among facilities, the capacity to spend available funds also varies, leading to accumulation of funds at poorly functional facilities. These facilities do not produce UCs on time and therefore the next tranche of funds to the whole district is not released. This affects the well-performing facilities that need the higher budgets to fulfil the demands. The pace of expenditure is thus, sadly set by the poorest performers. The challenge has been to make fund allocation responsive to the actual requirements and absorption patterns. Currently some basic measures of differential allocation of the untied funds have been introduced, along with retaining 15% of the untied funds as a district pool meant for giving more to facilities requiring more inputs.*

v. *Stronger management structure- Increased institutional capacities formanagement leads to improved expenditure. Thus an active SIHFW or state training cell leads to better delivery on training programmes, states with dedicated organisations for procurement and logistics spend much more on drugs and supplies, states with infrastructure development corporations or cells have done better in closing*

infrastructure gaps, states with ASHA resource centers have absorbed ASHA funds better, expenditure on emergency ambulance services is better when the management is contracted out to a professional team, and so on. Similarly setting up of adequately staffed and functional state program management units (SPMUs) and functional state health societies correlate with increased absorption of funds.

vi. *Human resource deployment - In any health care system almost 50% of the funds absorbed would be on human resources and even the absorption of funds in supplies and equipment would depend on adequacy of human resource deployment. The nearer the actual deployment of HR at different levels of health care provision is to the IPHS norms, the greater the range and volume of services that is provided and this in turn leads to better utilization of consumables and equipments increasing the operating expenses leading to better absorption of funds at the facility level. Where vacancies are not filled up and posts are not created or recruitments are delayed, expenditure is slower. An alternative to creating posts is contracting in or contracting out services- which is just another form of increasing the human resources deployed. The experience was that except in some very limited areas, these routes of increasing human resource deployment and therefore expenditure were equally if not more difficult to achieve.*

Q.2: What are the issues in resource allocation for district plans?

A: *The NRHM focussed on community participation and processes going into the district plan. But soon the main problem that emerged was that final budget allocations seldom matched expectations in amounts as well as in prioritisation and patterns. States had to allocate funds to districts and districts to facilities, without compromise in efficiency of services or equity considerations and most important adhere to government financial rules and regulations.*

Where plans are sanctioned according to traditional ways of writing the budget, then the sanction goes along with line items. This method of writing the budget is easier to develop, but when implemented, each line item moves at a different pace (different expenditure cycles), and on the ground a large number of mismatches occur and the synchronization between financial and physical achievement, and between physical achievement (in terms of inputs delivered) and strategic outputs (in terms of service delivery improvement, and improvements in lifestyles, health care practices) is lost. Local flexibility for programme managers to be responsive to needs is also reduced by the rigidity that accompanies sanction by line items.

The other way of planning a budget is by calculate the district resource envelope based on a formula that factors in equity considerations and case loads handled, and which is is linked to deliverable outcomes. This method of calculating the proposed budget leaves considerable scope for varying interpretations at the district level, and given the problems of governance and low capacity, such flexibility has the potential for misuse or inefficient use. The problem is compounded by the fact that reliable and objective outcome measures are also not easy to come by.

The challenge in the 12th plan would be to strike the right balance- to build guidelines which make it easier to relate financing to actual requirements and to programme outcomes and to local priorities as articulated by communities. The working group on NRHM set up under 12th five year plan has made specific recommendations in this regard, but this is an area where, we do not as yet, know the final answers and there is considerable scope for institutional innovation and reform.

8 Chapter

Improvements in Governance and Accountability

One of the key concerns during the design phase of NRHM was to build institutions of governance and to professionalize the management of public health systems so that it could not only absorb the increased flow of funds but also convert this investment into improved health outcomes. In parallel to improvements and innovations in management, there was also the need to put in place a monitoring and accountability framework to ensure that funds were used effectively, efficiently and appropriately for what they were meant.

Documented below are all the efforts that were undertaken in this regard followed by a discussion on the limitations and problems encountered.

I. Institutional Framework of Governance for the NRHM

At the national level, the NRHM was placed under a Mission Steering Group (MSG), chaired by the health minister and with representation of other key ministries at both the ministerial and secretary level. The MSG also included well known public health experts from both academia and civil society. Since its first meeting in 2006, this steering group has met over seven times. MSG has the powers of the cabinet to make changes in the scheme and it does take such steps whenever needed.

At the state level, there are three structures- the State Health Mission (SHM), the State Health Society (SHS) and the State Programme Management Unit (SPMU). The SHM is a consultative body at the ministerial level. The SHS has a Governing Board chaired by the Chief Secretary or equivalent, and the Health Secretary as the secretary. It also has an Executive Committee with the Health Secretary, as Chair and the Mission Director as Member Secretary. The SPMU functions as the Secretariat of this Executive Committee and reports to the Mission Director. It has a mix of management and financial professionals hired on a contractual basis, and regular programme officers who are also part of the Directorate of Health Services (DHS). Whilst the Governing Board is a governance institution, which meets once a year, both the Executive Committee and the SPMU meet more often and are the management organisations which are accountable and also ensure the adequate coordination and participation of the Directorate of Health Services.

At the district level, the Governing Board of the District Health Society exercises governance functions and the Executive Committee and the District Programme Management Unit (DPMU) are the management organisations. The DPMU is made up of both contractual specialist management staff and regular programme officers who come

under the directorate. The district panchayat members are usually represented, and in some states, serve as chairpersons or vice-chairpersons of the Governing Board.

While much more can be done to make these bodies even more dynamic, in most states their functionality and leadership role have been established. A total of 46 State Health Society meetings and 1258 District Health Society meetings were held across the country in 2011-12.

Rogi Kalyan Samitis (Hospital Development Societies): Rogi Kalyan Samitis have been constituted at the facility level to improve functioning of health facilities, facilitate inter-sectoral coordination and increase public participation in decision making. The status of RKS established at the various levels as of 31st Dec 2011 is given in Table 13. As can be seen there are gaps at the PHC level, but at all other levels the hospital development socieites are established.

Table 13 : Number of Rogi Kalyan Samitis established

Type of Health Facility	India	High Focus-Non NE	High Focus-NE	Non High Focus-Large	Non High Focus-Small & UT
District Hospitals (DH)	691	378	81	195	37
CHCs	4,841	2,156	241	2,428	16
Other than CHC at or above	985	254	28	702	1
block level but below District	16,916	5,608	709	10,533	66
Level	6,987	5,380	823	783	1
PHCs	16,957	5,640	708	10,543	66
Other Health facilities above SC but below block level (may include APHC etc.)	7,055	5,448	823	783	1

Source: MIS Progress report 30.03.12

The RKS provides for involvement of Panchayati Raj members, civil society organisations and officers of various government departments whose cooperation is needed for effective functioning of health facilities. The RKS supervise the use of untied funds and funds from other sources, thus working as a community monitoring mechanism for ensuring financial transparency.

Village Health, Sanitation and Nutrition Committees (VHSNCs): have been constituted at the revenue level with leadership from the gram panchayats. While the number of Villages is 6,40,867 (RHS- Population as per Census of India , 2011), 5,01,335 (78%) VHSNCs have been constituted. 4,43,928 i.e. 88% of these constituted VHSNCs have operational joint bank accounts.

VHSNCs play an important role as part of community monitoring and accountability mechanisms. They are also an important element of decentralised planning, though due to limitations in capacity, village health planning has had limited success.

II. New Management Organisations

With the increase in fund flow and programme complexities, there was a need to increase or establish management organisations to monitor different programme components. A list of these is provided below:

i. State and District Programme Management Units

ii. Infrastructure Development Cell- for infrastructure development and all civil works

iii. Procurement and Logistics Units- exclusively devoted to procurement of drugs and medical supplies and ensuring uninterrupted supplies . States like TamilNadu, Kerala, Delhi, Maharashtra, and Rajasthan have autonomous corporations that procure and supply drugs up to sub-district levels to ensure availability of drugs in facilities and reduce out of pocket expenditures

iv. State Training Centres and State Institutes of Health and Family Welfare (where there were none)

v. State Community Process / ASHA Resource Centre

vi. Management Contracts / State Cell for managing Emergency Transport Systems.

vii. State Health Systems Resource Centres for technical assistance

Some of these were registered as societies while others were constituted as teams of consultants placed within the programme management unit or appropriate available organisation. These multiple organisations brought in a wide variety of non -clinical professional skills that are essential for improved programme management. With the introduction of the programme management units, new management skills were inducted into the system with NRHM support. (Table 14)

Table 14: Number of Public Health Management Units/ staff in place (as of 31.3.12)

Management Units	In position
State Programme Management Unit (SPMU)	35
District Programme Management Unit (DPMU)	634
District Programme Manager	565
District Accounts Manager	555
District Data Manager (MIS)	532
Block Programme Management Unit (BPMU)	4,715
Block Manager	3,380
Accountant	4,008
Number of PHCs where accountant in position	4,522

Source: MIS Progress Report 30.03.12; Target is an SPMU in each of the 35 states, a DPMU in 640 districts and a BPMU in all 6,437 blocks

III.Public Health Management Skills

Encouraging qualifications in public health or public health management among staff is an important development seen during the past few years. There are 434 public health education courses across 15 states that bear relevance to public health skills. More than 23 masters in public health courses have started up. A few courses in public health management are also available in distance learning format. NRHM Staff working at different levels have either been recruited from these institutions or have later enrolled in these courses at their own cost to build their skills. District health management programme by IGNOU in collaboration with PHRN and by NIHFW are two important distance learning programmes which have attracted many self financed students directly linked to NRHM. Other than these the Government of India supports in-service

candidates for a one year diploma in public health management run at five institutions in coordination with the Public Health Foundation of India.

The government also provides an in-service three month course for district officers called Professional Development Course and this is for developing public health management skills.

IV.Management Processes: Decentralised Planning

District health plans have always been the core of decentralized planning as envisaged by NRHM implementation framework. 636 districts prepared plans in the 2011-12, as compared to 310 in the first year of the NRHM. The plans have helped to integrate the activities under vertical programmes and different departments including Disease Control, RCH, HIV/AIDS and AYUSH. However inter-sectoral convergence is yet to be addressed adequately.

Besides this, District Plans and District societies as vehicles of decentralized governance face challenges posed by varying levels of panchayat involvement, varying levels of capacity to develop need based plans and unmatched resource allocations to locally developed plans. The challenge is to build a resource allocation policy to interface with the participatory nature of planning, thus being responsive to public health needs as measured and needs felt by communities.

V. Health Management Information Systems

One of the major achievements under NRHM was to establish a Health Management Information System. At the time of the launch of NRHM, only 35 state level management reports were received with respect to service delivery in RCH and disease control. NRHM provided adequate data entry and data management staff at district and state level, standardised the information needs, the data collection formats, the definitions and indicators and then build standard procedures for flow of information. At present, data is flowing regularly from all of India's 600 plus districts into a national web-portal.

Barely had this stabilised when the decision was taken to upgrade to facility level thereporting of data. This meant an increase from 600 to a target of over 200,000 reporting units or reports every month, or about 2.4 lakh facility level reports every year. Both the technical systems architecture and the sub-district capacity is limited and as of today about 70% of the states have established facility level reporting.

In 2010, the Mother and Child Tracking system – a name based reporting system was launched to ensure quality and completion of care in pregnancy and immunization which is currently being implemented in all states. The percentage of data availability is low, but it is in the process of upgradation.

Meanwhile the actual use of this information in planning and monitoring lagged behind except in those states where there was a conscious decision to prioritise district and sub-district level use of data for management action. This process led to identification of a number of systemic reasons behind the poor data quality and there are now planned efforts to improve this. Where this has been done, HMIS has become an invaluable tool of decentralised planning and management.

There are also parallel information systems for Integrated Disease Surveillance Programmes, Malaria control and RNTCP. The challenge is to share information electronically between

these systems and with other systems available for civil registration as well as nutrition surveillance- so as to create a complete health information access.

Use of information technology tools has also increased in areas like human resource management, GIS, procurement and inventory management, accounting and financial management and most recently the use of mobile phones to expedite information flows and provide feedback.

VI. Building Institutions for Technical Assistance and Knowledge management

NRHM design recognised that in addition to increased investment and improved management, technical assistance would be needed to help states and the Center to plan for institutional reform, build capacities for public health action and design creative and innovative solutions to persistent constraints and bottlenecks in strengthening public health systems.

The National Institutes of Health and Family Welfare (NIHFW) and the State Institutes of Health and Family Welfare (SIHFW) were considered as apex training and professional public health education and research institutions.

Complementing this, the National Health Systems Resource Centre (NHSRC) acts as the apex institution for technical assistance, evidence based policy/strategy development and change management. Over the last five years with a staff of around 45 health professionals and 18 administrative staff ,it has been involved in providing technical support to MoHFW for RCH and NRHM. It directly provides or mobilises technical assistance support to states, responsive to their needs. One major function of the NHSRC has been to assess progress through the Common Review Missions and to evaluate programme components of the NRHM so as to improve their design and implementation.

The North East Regional Resource Centre, (NERRC), a unit of NHSRC, provides support for all the eight North Eastern states.

State Health Systems Resource Centres have been established in twelve states; Chhattisgarh, Kerala, Karnataka, Maharashtra, Punjab, Rajasthan, Uttarakhand, Bihar, West Bengal, Haryana, Orissa and Jharkhand.

The major areas of technical assistance are in building capacity of district and state for improved public health planning, development of health management information systems, innovation for quality improvement in public health facilities, designing evaluation studies, support to human resources policy development and resource support for all programmes related to community level processes.

Other than these publicly financed resource centres, Development Partners also contribute significantly to technical assistance provision in earmarked areas, such as UNICEF in child health and UNFPA in maternal and adolescent health. Development partner supported TA institutions also functioned in states notably through DFID support in Madhya Pradesh, Bihar and West Bengal, World Bank support in Tamilnadu and Karnataka, and USAID support in Uttar Pradesh, Jharkhand and Uttarakhand. Most of these technical support programmes have come to an end and have shifted over, or are in a process of being shifted over to NRHM financing. Development partners are also financing the Public Health Foundation of India, to provide technical support to the Ministry in a number of areas especially in AIDS control, immunisation and some areas of policy changes.

Frequently Asked Questions

Q.1. Has National Rural Health Mission been evaluated?

A: The following evaluation reports, programme study reports and surveys which give evidence on outcomes are published and available in the public domain:

1. *Progrramme Evaluation Cell, Planning Commission and Institute of economic Growth, Evaluation Study of the National Rural Health Mission in seven states, February 2011, SC Gulati, RS Singh, Rajesh Raushan, Arundhati. This is a detailed large scale external evaluation commissioned by the Planning Commission.*
2. *Improving Access and Efficiency in Public Health Services, Midterm Evaluation of India's National Rural health Mission, Nirupam Bajpai, Jeffrey D. Sachs, Ravindra Dholakia, et al. Sage Publications, 2010. This is a systematic evaluation of the NRHM which assesses progress made against objectives of the Mission.*
3. *Concurrent Evaluation of National Rural Health Mission, International Institute of Population Sciences, Mumbai, 2010. This study was done by a team of over ten research institutions over a three year period. It covered 197 districts, with 1 DH, 2 CHCs, 4 PHCs and 12 sub-centres, 24 villages, 24 ASHAs and 12 PRI representatives sampled in each of these districts. It has detailed data sheets of performance on a large number of parameters. Survey was done in 2009. A summary is also available.*
4. *Coverage Evaluation Survey, 2009. All India Report, UNICEF, 2010 and Coverage Evaluation Survey 2005, All India Report, UNICEF. A large sample survey, the sample is good enough to predict state values, but not for district estimates. This study was done at the baseline and repeated in 2009 gives excellent information on the baseline in 2005 and mid-term, four years later, using the same definitions and methods of data collection. Data relates to RCH services exclusively.*
5. *District Level Household Survey 2007-08 and District Level Household Survey 2002-04, International Institute of Population Science Mumbai. The Study was done with over 14 research organisations. Detailed data base on both facility functioning and household surveys for health practices and access to health services with special reference to RCH. This data comparison shows the early changes in the NRHM.*
6. *Sample Registration Survey- Registrar General of India, 2006, 2007, 2008, 2009, 2010. The report of each year gives the most reliable data available for the previous year - on crude birth rates, death rates, infant mortality rates and neonatal mortality rates. No district disaggregation are available.*
7. *Mid-Term Performance Appraisal of Ministry of Health and Family Welfare, Planning Commission, 2010. This is a policy paper made based on submissions from civil society and from the government, as assessed by the Planning Commissions' expert group.*
8. *Performance Audit of the NRHM, Report of the Comptroller and Auditor General of India, Union Government (Civil) Report No. 8 of 2009-10. The focus of this is a financial audit that looks at physical and financial achievements against stated goals.*
9. *First Common Review Mission Report, 2007, Second Common Review Mission Report, 2008, Third Common Review Mission Report, 2009, Fourth Common*

Review Mission Report 2010, Fifth Common Review Mission Report, 2011, MOHFW, Government of India, New Delhi 110001. Each of these reports are written on the basis of rapid appraisal visits made by a multi-stakeholder group of public health experts to a sample of districts across about 15 states each year. The entire exercise is coordinated by the NHSRC.

10. *Joint Review Mission, reports of the RCH 2 programme, 1st to 7th: 2006-2010*
11. *The Way Forward: An eight state evaluation of the ASHA programme: NHSRC, May 2011.*
12. *Nirupam Bajpai, RH Dholakia, Improving the Performance of ASHAs in India, Improving the Integration of Health and Nutrition Sectors in India. Earth Insitute Columbia University and IIM Ahmedabad.*
13. *Citizen's Reports from civil society groups- a. Voluntary Health Association of India, b. Centre for Health and Social Justice and Jan Swasthya Abhiyan.*
14. *Annual Health Survey, 2010-11, undertaken by the Registrar General of India in 84 districts in the 8 EAG states and Assam is the largest demographic survey in the world. Carried out during July 2010 to March, 2011, the survey is designed to yield data on core and vital health indicators. The survey is available in the form of State wise bulletin and contains district wise information on CBR, CDR, MMR, IMR, NNMR, U5MR and SRB . The data sets are useful for providing information on comprehensive district health profile and as inputs for district health planning.*
15. *Evaluation of NRHM in 7 states, 2009, Planning Evaluation Organization, Planning Commission, Government of India.*
16. *Programme Evaluation of the Janani Suraksha Yojana, August 2011, NHSRC.*
17. *Publicly Financed Emergency Response and Patient Transport Systems under NRHM—February 2012, NHSRC*

There has been no other health programme in the last 20 years that has attracted this level of interest in evaluation. However given the complexity of methodological issues and the scope of the programme itself there is space for even more studies and evaluations. The next and fourth round of DLHS is to begin soon.

Q. 2. Do the evaluation reports match with what is reported by the government?

A: There is not much difference in the data/facts as reported in these different sources. Because of differences in methods of collection of data, values could be different when comparing different sources, but the pattern of change seems consistent across studies. There are however divergences in data interpretation and explanations. One could interpret the achievements as falling far short of targets, or one could be impressed by the rapid pace of forward movement given the baselines with which the programme started. The targets in service delivery are themselves an expression of what a system should ideally have in place- and therefore a shortfall is to be expected. Thus the rate of change may be higher in the high focus states, but the gaps between the actual achievements and the goals are the most.

Few studies have explored the reasons for the differential performance between states, keeping the historical context in mind. Because of collapse of institutional capacities in the earlier 15 years, high focus states have taken time to get going in many areas. For examples ANM schools had to be revived and generate graduates before the newly

created posts in these areas could be filled up. Critical shortages in human resources have been another reason due to failure to fill vacancies over a 15 year period, which also meant that these states started out with very poor capacity to absorb funds.

Further, most districts have chosen to prioritise facilities for up-gradation, knowing full well their limitations in bringing up every facility to IPHS levels. Also given improved transport and communications and more informed health seeking behaviour, a fewer set of facilities with greater capacity is potentially adequate to provide universal access. Cross sectional analysis that studies a small sample of facilities, and averages across facilities whether or not these were prioritised, would not capture this improvement, unless the sample is purposively drawn only from prioritised facilities- as is done for example, by the Common Review Mission. If such factors are taken into consideration, then the interpretation of data could have been more consistent across studies. We also recognise that for a given level of these constraints there are states and districts that have responded with much greater efficiency than others.

Q.3.: What is the accountability framework envisaged in the NRHM?

A. *The governing boards of the state health society and the district health society are to have a separation from their respective executive committees, and serve as the primary mechanisms of holding the executive of these programmes accountable. Regular meetings of the board with adequate preparation, reports, transparency and multi-stakeholder participation are essential. At the national level, it is the Mission Steering Group that performs this function. The society as a whole is also answerable through its chairperson and member secretaries to the legislature and parliament.*

B. *At the local or facility level, the RKS play a similar role- though due to lower capacities, effectiveness in this role is weak.*

C. *All districts have a system of periodic concurrent audit and an annual audit. The national programme on the whole is subject to the CAG audit. All accounts down to the district level, and increasingly to the block and facility level have been computerised and with insistence on e-banking the entire flow of funds is visible from higher levels.*

D. *Levels of service delivery on key parameters are visible through the health management information system, and can be triangulated with data of high quality and reliability available with a lower frequency from external surveys. The most important of these external surveys are the SRS, the DLHS, and Annual Health Survey and the Coverage Evaluation survey.*

E. *There is a concurrent evaluation survey done under the leadership of the International Institute of Population Studies that also leads the NFHS and DLHS, which data is also available. The Common Review Missions also provide information on an annual basis.*

F. *Regular monitoring visits from national programme management units to states and districts and from states to districts and blocks and facilities are expected.*

G. *Community monitoring of facilities facilitated by non government organisations have also contributed to holding the system accountable, albeit in a limited area.*

Q.4. So why are there so many problems in accountability? What further measures are proposed for improving accountability?

A. *The problems are greatest, where there have been fewer funds in the past, and systems had to make a rapid transition and erect the expected accountability framework,*

with little tradition of doing so. Thus in some of the most problematic states, formal meetings of the governing boards were not held at any level, and even where audit reports pointed gaps, action was not initiated. Often concurrent audits were deployed much later. Most of these issues are better attended to now. However there are five areas where progress needs to be strengthened to prevent problems of governance. These relate to the building systems for fair, rule based and transparent mechanisms for (in order of urgency)

a *Appointment of the main Chief Medical Officer of the district*

b. *Procurement and Logistics*

c. *Postings and Promotions*

d. *Contracting for different forms of public private partnership*

e. *Use of infrastructure development funds*

Q. 5. What are the mechanisms of responsiveness of the system? To what extent has decentralisation been effective and what is proposed to strengthen this.

A. *The single most important device in NRHM towards responsiveness is the district planning process. This is also the major mechanism for effective decentralisation- other than the creation of organisation structures like district health societies, village health committees and hospital development societies.*

As described earlier great strides have been made in district planning- but there are two major limitations that this process is facing:

a. *The policies of resource allocation, responsive to the variety of plans have been a major problem. Flexibility in rules is required, but flexibility has the risk of opening doors for both misuse and poorly planned programme designs. To the extent that programmes become participatory and community voices are better articulated, this gap between resource allocations and articulated needs can actually grow!! We do not quite know how to manage this as yet.*

b. *Capacity for use of block and facility and village dis-aggregated information that is needed for meaningful district planning is inadequate. At the start of the NRHM the availability of such information was the problem. Now in most states both disease specific information from IDSP and disease control programmes and RCH service delivery data from HMIS is available, but few have learnt to deploy this information effectively.*

The challenge of public health systems in the coming years is to overcome these two constraints. With both state administrators and district teams dissatisfied with the outcomes of the district planning process, the system has been turning away from district planning altogether- and this in effect diminishes the possibility of constructing a responsive public health system. The way forward is first and foremost the recognition of the technical problems and then innovations and institutional reforms to overcome these.

Q. 6. What are the main directions before NRHM today?

A. *We list the following main directions of movement below:*

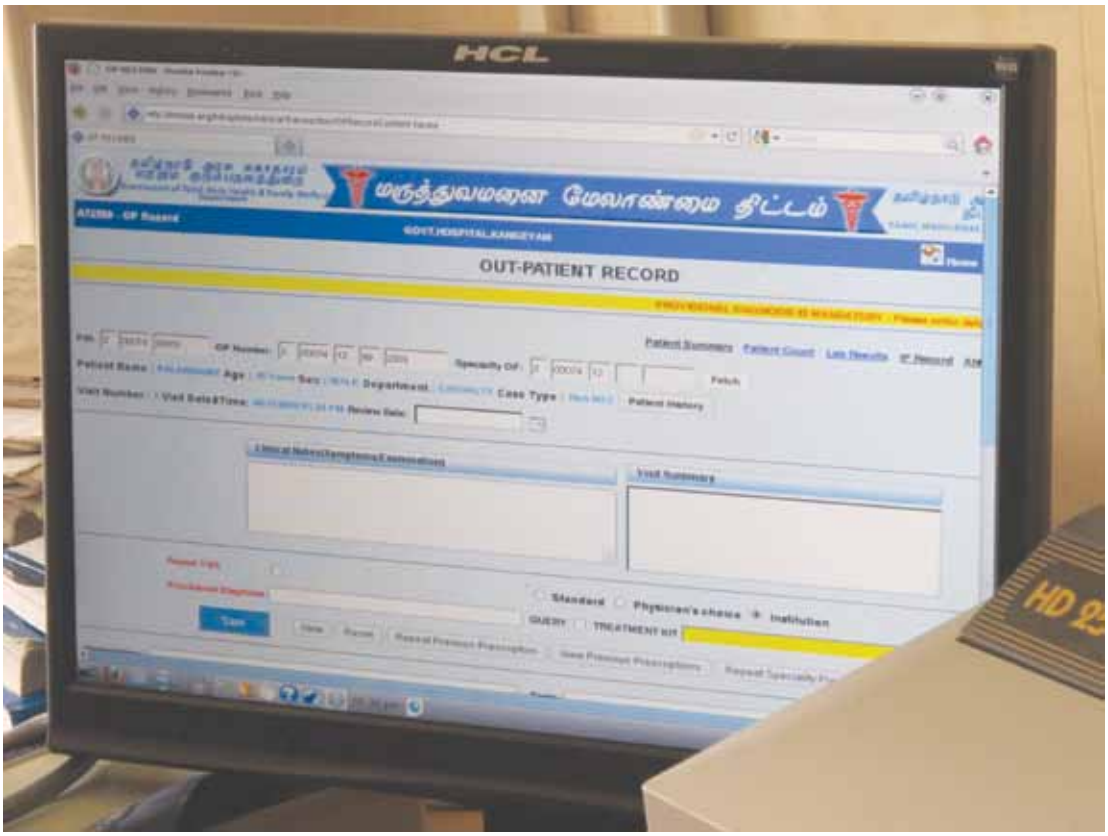
1. *Bringing a greater focus on eight states- for improvements in population stabilisation, MMR and IMR- Uttar Pradesh, Orissa, Assam, Bihar, Madhya Pradesh,*

Rajasthan, Jharkhand, Chhattisgarh. Also, a higher focus needs to be given to poor performing districts of other states.

2. *Develop the district plan as a road map towards the universalisation of health care. Such a district plan should have clear prioritisation of facilities for upgradation and development, such that there can be a guarantee of universal access to RCH services within one to three years in most states. And then moving beyond assured RCH services to comprehensive service guarantees as defined by IPHS in those states. States where demographic transition is complete and access to RCH services is over 80% should be able to achieve the comprehensive package of services much faster .*
3. *Ensure that every facility at any given time is externally inspected and quality certified for the package of services it is currently delivering.*
4. *Further increase in financing at the national level with states also making increases, but linked to differential financing of facilities- reflecting the volume, quality and range of services provided by each facility.*
5. *Ensuring the withdrawal of user fees and the availability of all essential drugs and diagnostics and diet in all public health facilities as appropriate to the assured level of services which is expected of that facility. This also implies streamlining the procurement and distribution of drugs in line with the best practices in this area.*
6. *Assist each state to develop a human resource policy for health specifying districts where government supported educational institutions are needed, measures to improve recruitment and retention of skilled service providers, and ensuring that every facility has the required skill sets it needs for delivering on its service guarantees.*
7. *Provide ASHA with the skill and support needed for her to be effective as a community level care giver, counselling for improved health and nutrition practices and saving newborn and child lives through prompt and appropriate home based care.*
8. *Develop a long term vision for the community health worker, so that much of the work of preventive, promotive, rehabilitative and even curative care can be delivered much more cost-effectively at the community level, reducing the need for secondary and tertiary care. This needs to go along with a process of certification and skill upgradation of the existing workers and creation of appropriate skills ets.*
8. *Strengthen capacity for district planning and decentralised governance in health- by more responsive resource allocation strategies, and better capacities for district level planning and management.*
9. *Build up the capacity at the district level for providing advanced secondary and tertiary care services in all basic specialities, in acting as a training and education center for paramedicals, nurses and mid-level care providers, and for purposes of planning and knowledge management.*
10. *Build up/ build capacity in institutional structures needed at state level for better governance, for better programme management (directorates, the state programme management unit), better training programmes (SIHFW) better*

technical assistance (SHSRC), for procurement and logistics management unit, for infrastructure development unit and for resource support to community processes.

11. *Build partnerships with Not for Profit organizations for training ASHAs, VHSNCs, RKS and service delivery in special circumstances and with private sector in health for provision of services to supplement the public health sector closing critical gaps in the systems ability to provide assured services*
12. *Ensuring that districts are led by suitable Public health qualified and experienced officers, selected and appointed through a transparent process- and also gradually building up a public health management cadre made of such persons*
13. *Effective inter-sectoral governmental action and community level action to address key social determinants of health- nutrition, water and sanitation, and marginalized groups.*



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Acronyms and Abbreviations

JSY	Janani Suraksha Yojana
LBW	Low Birth Weight
LLIN	Long Lasting Insecticide Nets
MBBS	Bachelor of Medicine, Bachelor of Surgery
MDA	Mass Drug Administration
MMR	Maternal Mortality Ratio
MoHFW	Ministry of Health and Family Welfare
NABH	National Accreditation Board for Hospitals & Healthcare Providers
NDCP	National Disease Control Programmes
NERRC	North East Regional Resource Centre
NFHS	National Family Health Survey
NGO	Non-Governmental Organisation
NHSRC	National Health Systems Resource Centre
NIDDCP	National Iodine Deficiency Disorder Control Programme
NIHFW	National Institute of Health and Family Welfare
NLP	National Leprosy Control Programme
NPBC	National Programme for Control of Blindness
NPCC	National Programme Coordination Committee
NRHM	National Rural Health Mission
NSSK	Navjaat Shishu Suraksha Karyakram
NVBDCP	National Vector Borne Disease Control Programme
PHC	Primary Health Centre
PHRN	Public Health Resource Network
PIP	Programme Implementation Plans
PR	Prevalence Rate
PRI	Panchayati Raj Institution
RCH	Reproductive and Child Health
RKS	Rogi Kalyan Samiti
RNTCP	Revised National Tuberculosis Control Programme
ROP	Record of Proceedings

SBA	Skilled Birth Attendant
SDH	Sub Divisional Hospital
SEARCH	Society for Education, Action, Research in Community Health
SHM	State Health Mission
SHS	State Health Society
SHSRC	State Health Systems Resource Centre
SIHFW	State Institute of Health and Family Welfare
SNCU	Special Newborn Care Unit
SPMU	State Programme Management Unit
SRB	Sex Ratio at Birth
SRS	Sample Registration Survey
TFR	Total Fertility Rate
U5MR	Under Five Mortality Rate
UC	Utilisation Certificate
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
VHND	Village Health and Nutrition Day
VHSC	Village Health and Sanitation Committees
WHO	World Health Organisation

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