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Review Article

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Progress of health care in rural India: a critical review of National Rural Health Mission

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ABSTRACT

National rural health mission (NRHM) was initiated in the year 2005 in eleventh five year plan, with the objective of providing quality health care services to the rural population. The mission brought out salient strategies by involving various sectors and forging partnerships with various organizations to unify health and family welfare services into a single window. Though the mission strived for a sustainable health care system, it did not envisage certain challenges in implementation. The public health system in India could take off from the foundations laid by the NRHM to overcome these challenges, in order to achieve various goals of health and development and put India on the road map of healthful development. The objective of this review article is to critically evaluate the implementation of national rural health mission and highlight its success and to make recommendations on the future health care planning and implementation in achieving universal health coverage for the rural India. NRHM has been a mammoth effort by the Union Government to build the public health infrastructure of the nation. The mission deserves its credit for empowering the rural India in health care, especially in States with poor health related indicators. NRHM has been a pioneer in reiterating the need for community participation, coupled with intersectoral convergence, to bring about a paradigm shift in the indicators, which has been reasonably achieved in most of the States. Taking forward the foundations laid by the NRHM, it is essential for the forthcoming policies and plans to focus on capacity building, not only on the infrastructure and technical aspects, but also on streamlining the health workforce, which is crucial to sustaining the public health infrastructure. The public health system in India should take off from the foundations laid by the NRHM. There is an imminent need to focus on forging a sustainable public private partnership, which will deliver quality services, and not compromise on the principles and identity of the public health system of the country, in its pursuit to achieve universal health coverage and sustainable development goals.

Keywords: Health programme, Family welfare, NRHM, Rural health

INTRODUCTION

It is an established fact that India, as a growing economy is dependent on the health status of its population for its economic growth. The healthcare in India has undergone tumultuous changes since Bhore committee in 1946 and each change has only been for a better healthcare delivery, encompassing all the sections of the population.

The health sector reforms over the 1990's changed the perspective of healthcare from 'service' to 'commodity'. Through the evolution of the health care system in India, several surveys had put forth the importance of community participation in uplifting the health of the people, especially in rural areas. This led to the implementation of National Rural Health Mission as an important component of the eleventh five year plan between 2005 and 2012.

National rural health mission (NRHM) was launched in 2005 with the goal of improving the availability of and access to quality health care by people in rural areas, especially the poor, women and children.² NRHM mission was carried out through key national programs, namely, the Reproductive and Child Health II project (RCH II), the National Disease Control Programs (NDCP) and the Integrated Disease Surveillance Project (IDSP).

The National Disease Control Program (NDCP) comprise of preventive and curative measure for control of malaria, encephalitis, dengue, kalazar, tuberculosis, blindness, iodine deficiency disorders, and polio. The process parameters for the success of the communitization process can be adjudged in terms of constitution of village health sub centres (VHSCs), recruitment and functioning of ASHAs, constitution of registered Rogi Kalyan Samities at district hospitals (DHs), Sub-Divisional Hospitals (SDHs), community health centres (CHCs) and primary health centres (PHCs).³

NRHM also enabled mainstreaming of AYUSH i.e. Ayurvedic, Yoga, Unani, Siddha and Homeopathy systems of health. The mission laid its foundation on focusing on maternal and child health and family welfare through the principles of community participation and intersectoral co-ordination. NRHM was implemented all over India to strengthen the health care indicators by providing quality and affordable medical care at primary, secondary and tertiary health care levels.

This mission has resulted in several hallmark achievements in the health care of the country. As a next step towards the progress of the health care system, it is warranted to critically review the achievements of the mission, considering several components including financial outlay, targets achieved, etc. This will ascertain the thrust areas to be focused in planning of the health care delivery of the country in future.

Objective

The objective of this article is to critically evaluate the implementation of NRHM and to make an assessment of its achievements which will help the future health care planning and implementation for a better, healthy rural India.

STATE OF 'PUBLIC HEALTH' PRIOR TO NRHM

The public health expenditure in India had declined from 1.3% of GDP in 1990 to 0.9% of GDP in 1999. The Union Government's contribution to public health expenditure was 15% and the State's contribution was 85%. The National Health Accounts (NHA) 2004-05 data shows that at the State level, 38% of health expenditure is spend on primary health care, 18.67 % on secondary health care, 21.84 % on tertiary health care and rest on direction and administration and other services.4

This has not been changed substantially by 2008-09 as per the National Health Systems Resource Centre (NHSRC) budget tracking report. The share of State expenditure (TN) on primary health care services, secondary health care and tertiary health care were at 38%, 39% and 8%. As per the budget tracking study done by NHSRC, the increase in own share of health budget over the previous year was 5%.5

Most states spend around 4 to 5 % of the state budgetary outlay on health and less than 1% of the GSDP on healthwhich is insufficient to meet the NRHM goals. The total public expenditure on health in the country as a percent of GDP stands at around 1.1% in 2009-10 from 0.96% in 2005-06. The current public spending is roughly 1% of the GDP and there is an urgent need for rising to 2-3% of the GDP.⁴ The twelfth five year plans needed to address these constraints creatively-especially the central problem of efficiency in resource allocation to districts and within districts. Having said that it needs to provide a much larger resource envelope to all states for them to be able to achieve their goals

Of the total health expenditure, the share of private sector was the highest with 78.05%, public sector at 19.67% and the external flows contributed 2.28%. Out-of-pocket spending accounts for over 95% of total private health spending and 71.13 % percent of total health spending in India, which is one of the highest, even amongst lowincome countries. The high out-of-pocket expenditure on health care forms a barrier to accessing care and can cause households to incur catastrophic expenditures, which in turn can push them into indebtedness and poverty.

According to a recent article published in Lancet, health expenditures account for more than half of Indian households falling into poverty, with about 39 million Indian people (30.6 million in rural areas and 8.4 million in urban areas) being pushed into poverty every year due to health costs. Also, the curative services were in favour of the non-poor and over 40% of the hospitalized individuals borrow heavily or sell their assets to cover the hospitalization costs.⁶

The other key issue was the lack of community ownership of public health programmes, which had impacted the efficiency, accountability and effectiveness in implementation of these programmes. Moreover, vertical health and family welfare programmes had limited synergisation at implementation levels. There was a strong need to synchronize several preventive and curative public health services such as sanitation, hygiene, nutrition and drinking water. Above all, population still remained a challenge, especially in states with poor demographic indicators.⁷

All these reasons necessitated the need for bringing in an encompassed health mission throughout the country, especially for the health and welfare of the poor in rural India, and this led to the implementation of National Rural Health Mission.

NATIONAL RURAL HEALTH MISSION

It was a historic day in India on 12th April 2005 when the then Honorable Prime Minister, Dr. Manmohan Singh launched the National Rural Health Mission with a time frame of 7 years from 2005 to 2012, with a vision of "Meeting people's health needs in rural areas" with a budget outlay of Rs. 6500 crores for 2005-06 and a commitment of the government to raise public health expenditure from 0.9 % to 2-3% of GDP.⁷

NRHM was launched with a view to bringing about dramatic improvement in the health system and health status of the people especially those who live in the rural areas of the country.

The objective of NRHM mission

The main objectives of NRHM was to provide accessible, affordable, effective, accountable, and reliable health care to the entire rural population in the country with special focus on 18 states (8 North Eastern states + 8 empowered action group (EAG) states [socioeconomically backward states of Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Uttaranchal and Uttar Pradesh] + 2 Hilly states (Himachal Pradesh, Jammu & Kashmir) which have weak public health indicators.

The objectives of NRHM were⁸

- Reduction in the Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR).
- Universal access to public health services such as women's health, child health, water, sanitation & hygiene, immunization, and nutrition.
- Prevention and control of communicable and noncommunicable diseases, including locally endemic diseases.
- Access to integrated comprehensive primary healthcare.
- Population stabilization, gender and demographic balance.
- Revitalize local health traditions and mainstream AYUSH.
- 7. Promotion of healthy life styles.

The important goal of NRHM is to reduce the maternal mortality ratio (MMR) in the country from 407 to 100 per 100000 live births, infant mortality rate (IMR) from 60 to 30 and total fertility rate (TFR) from 3.0 to 2.1 within 7 years of NRHM.⁷

The implementation of NRHM

The implementation of NRHM was planned by strengthening the following components by working in co-ordination with the State Governments, Panchayati Raj institutions and NGOs.8

- Training Accredited Social Health Activist (ASHA) to bridge the health care providers and the community.
- Strengthening sub centers with provision of untied fund and essential drugs
- Strengthening primary health centers to provide 24 hours services with standard treatment guidelines and protocols
- Strengthening community health centers as first referral units (FRU) by promoting Rogi Kalyan Samiti
- District health plan e)
- Converging sanitation and hygiene under NRHM f)
- Strengthening disease control programmes
- Public private partnerships (PPP) for public health goals and regulation of private sector
- New health financing mechanisms
- Re-orientation of medical education (ROME) i)

Financial outlay

The NRHM funds have been released to states through the state health societies as four components- RCH flexipool, mission flexi-pool, Immunization (including Pulse Polio) and the national disease control programmes.

Most of NRHM funds released (31%) went to finance the health system strengthening taken up under mission flexipool, despite comptroller and auditor general allegations that the funds had been diverted for other schemes in various States. This is followed by funding the maternal and child health interventions under RCH-II (28%), immunization and disease control programmes (14%) and on sub health centre expenses (27% under the head "infrastructure maintenance - which flows through the treasury route and not under society route). The per capita expenditure on national rural health mission was Rs. 80.44 in 2005-06, which increased to Rs. 129.77 in 2007-08 and then to Rs. 163.62 in 2009-10 (Source: Public Accounts Committee 32 Report, 2010-11).

The proportion of releases between primary, secondary and tertiary level for the health sector is one area of concern. If all of NRHM is considered as primary and secondary- this accounts for approximately 70% of the health budget. The rest has gone to medical research, medical and nursing education and to tertiary care hospitals.

Achievements of NRHM

The achievements of NRHM are tabulated in Table 1. It is observed that the expected targets of IMR and MMR have been achieved in almost all the States, including the EAG states. There has also been a considerable improvement in the communicable diseases indicators.

Table 1: Achievements of NRHM.

S. No	Indicators	2005	2012	Achievement*
1	IMR	58/1000 live births	30/1000 live birth	10 states/UT achieved, 15 states in the range of 30-40/1000 LB
2	MMR	254/100,000 live births	100/100,000 live birth	s 8 states below 200/100,000 LB
3	TFR	2.9	2.1	19 states and 5 UT below replacement level 7 states between 2.2 to 2.6 6 states 2.7 to 3.9
4	Bed occupancy ratio at FRU		>75%	
5	ТВ		85% cure rate	Achieved
6	Leprosy		<1/10,000	Target achieved
7	Malaria mortality reduction		60% by 2012	45.23%
8	Filaria/microfilaria reduction rate -		70% by 2010, 80% by 2012 and elimination be 2015	
9	Kala azar mortality reduction rate 100% by 2010 and sustaining elimination until 2012			21.93%
10	Dengue mortality reduction rate		50% by 2010 and sustaining at that level until 2012	56.52%
11	Cataract operations		Increasing to 46 lakhs until 2012	Achieved

Table 2: Status of the indicators of NRHM and their reference.

S. No	NRHM indicators	Achievement	Reference
1	Total fertility rate (SRS 2007)	1.6	(SRS-2007)
2	Infant mortality rate (SRS 2007)	35	(SRS-2007)
3	Maternal mortality ratio (SRS 2004 - 2006)	111	(SRS 04-06)
4	Mothers having full ANCs	23.7% to 51.9%	DLHS-3 (2007-08)
5	Mothers who received 3 or more antenatal care checkups (%)	96%	DLHS-3 (2007-08)
6	Institutional deliveries	91.4% to 83.2%.	DLHS-3 (2007-08)
7	Unmet need for family planning	18.1% to 19.4%.	DLHS-3 (2007-08)
8	Children 12-23 months age fully immunised (%)	91.4	DLHS-3 (2007-08)
9	Children with diarrhoea receiving ORS	35.8% to 37.8%.	DLHS-3 (2007-08)
10	Underweight children as per NFHS-3, 2005-06	33% (40.4% (NFHS III).	DLHS-3 (2007-08)
11	No. of districts implementing integrated management of neonatal & childhood illness (IMNCI)	10	33.3%

Table 3: Performance of selective indicators in NRHM in Tamil Nadu.

S. No	Timeline activities	Achievements	%
1	VHSC	15158	93
2	24×7 PHC's	1181	100
3	Mobile medical unit	29	91
4	Rogi Kalyan Samithi	1685	98
5	ASHA [selection & training]	0	0

The indicators for the targets and their status of achievement from various surveys and sources are given in Table 2.

Performance of Tamil Nadu in NRHM9

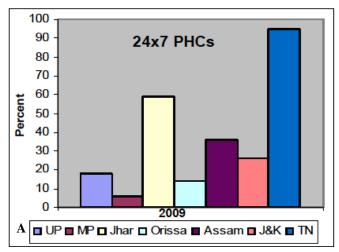
Tamil Nadu is one of the forerunner states in achieving the health indicators, second only to Kerala. Health is a State subject and for decades, the State has brought about several reforms to ensure the health and welfare of its people. The State's health system strengthening was brought about by Tamil Nadu health systems project (TNHSP) which enhanced the public health infrastructure.

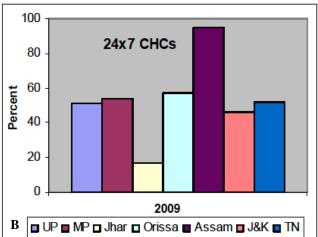
Therefore Tamil Nadu, in tandem with NRHM brought about glorifying results in the implementation. There were certain differences in the mission implementation, owing to the already existing schemes and strategies, for eg. ASHA are not implemented in Tamil Nadu, due to the existence of grass root workers namely village health nurses (VHN). The achievements of NRHM in Tamil Nadu are given in Table 3.

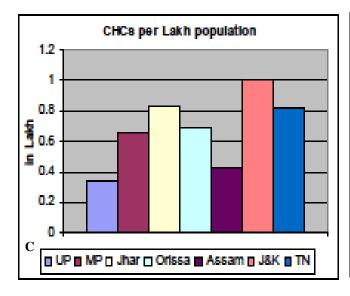
NRHM in Tamil Nadu³

Physical infrastructure in Tamil Nadu comprises of 27 DHs, 206 CHCs, 1215 PHCs and 8706 SCs: In all, 291 health facilities are functioning as FRUs. All the health facilities are adequately equipped for the routine works and emergency situations. The DHs, SDHs and FRUs are well equipped for lab investigations like x-ray, ECG, ultrasounds, etc.

Human resources in the state: All the facilities are provided with adequate number of Specialists, Doctors, Nurses, VHNs, Pharmacists, Lab Technicians, and other support personnel on regular or contract basis.







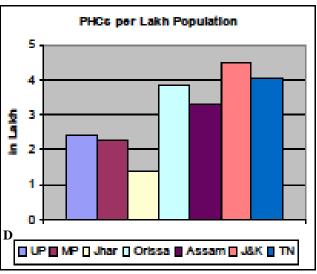


Figure 1: Health infrastructure in Tamil Nadu. A=24×7 PHCs, B=24×7 CHCs, C=CHCs per lakh population, D= PHCs per lakh populations.

Case load in state was already satisfactory and quite high. Number of beneficiaries under JSY seems to have improved from just 0.87 lakhs in 2005-06 to 3.87 lakhs in 2008-09. PHC case load was reported to have increased remarkable since NRHM.

Children fully immunized have marginally gone down from 11.2 lakhs in 2007-08 to 10.1 lakhs in 2008-09. The marginal decline is no reflection on the immunization coverage but could also because of decline in fertility.

NDCP seems to be working well in the state. Reported cases are primarily because of dengue and Japanese encephalitis. Deaths due to dengue were only sporadic during the period.

Quality of health services in the state is quite satisfactory. Most of the health facilities had been working well even before the initiation of NRHM, but further supplementation of additionalities under NRHM has further strengthened the health system.

ASHA scheme has not yet been implemented in Tamil Nadu. The tradition of AYAs helping VHNs/ANMs in villages is functioning well in the State.

AYUSH services are being provided in most of the DHs, CHCs and PHCs. Existing infrastructure strengthening of the AYUSH services comprise 28 colleges, 292 hospitals, 533 dispensaries and around 27233 RMPs functioning in the state. Nevertheless, for further strengthening a budgetary provision of around 11 crore was being suggested in 2009-10 PIP.

Communitization process in the state has been further strengthened under NRHM. However, ASHAs have not been recruited in the state as the prevalent system of AYAs helping the VHNs in villages has continued. All the VHSCs have operational joint accounts in the state. Further we find that NRHM funds have almost been fully utilized in the state.

Drug procurement and supply under NRHM seems to working very well in the State. All PHCs and SCs are provided with requisite drugs and other supplies.

CRITICAL REVIEW

The NRHM proposed a complete revamp of the rural health services, claiming provision of effective healthcare with universal access to the rural population. The major success of NRHM in achieving the maternal and child health indicators and fertility related indicators could be totally attributed to the increase in the institutional deliveries, which in turn is attributed to ASHAs and the runaway success of the welfare scheme Janani Suraksha Yojana (JSY).

The role of ASHA in the success of NRHM is worth mentioning. As a 'social activist' and as a 'health activist', ASHAs perform a dual role of not only empowering the rural population with health awareness, but also facilitating community participation, which is pivotal to the success of any programme. However, the much needed social and professional support from the PHCs and panchayats were lacking in several areas. Moreover, there was duplication of the portfolios in certain states which had similar roles initiated way ahead of NRHM, for e.g. Tamil Nadu.

One of the key aspects which was responsible for the success of NRHM implementation was decentralization at all levels of health care, complemented effectively with the convergence of various national health programmes. In consequence to this, accountability of Panchayati Raj Institutions, and other bodies was achieved. 10 However, decentralization coupled with intersectoral convergence through public private parnterships could minimize the role of state governments.11

The other key aspect of NRHM is strengthening of the CHC as first referral units (FRU). This has enabled capacity building of secondary health care and also contributed to provision of quality care. Nevertheless, the access to this quality care has been compromised in certain districts, owing to the distance and the number of FRUs within the reach of the rural population. The implementation of Indian Public Health Standards (IPHS) for the CHCs has been well commended. In consequence to this, there is an imminent need to upgrade the PHCs to provide full range of basic services, including renovating the infrastructure. This could be adeptly carried out by forging efficient partnerships with private bodies in a leasing model, without compromising on identity of the public health system. 12

NRHM is a workforce dependent mission with a larger goal of improvement in the quality of health care practice through the development of a sustainable health care system. This required manpower trained not only in health care practice, but also in administrative and managerial aspects. This has necessitated the need for imparting due training to the health care providers and important functionaries who could carry forward the strategies of the mission efficiently.¹³

BEYOND NRHM

On the global perspective, India has been competing with several countries since the Alma Ata Declaration in 1978, to achieve 'Health For All'. One of the key strategies in achieving this was proposed as Millennium Development Goals (MDG), of which Goal 4 and 5 were directly executed through NRHM. The goals, with a timeline target of 2015 were considerably worked upon in India,

though there were regional disparities. For example, the under 5 mortality rate in 1990 was estimated to be 125 per 1000 live births. To achieve the MDG goal, the under five mortality rate was to be brought down to 42 deaths by 2015, while India achieved a 45 deaths per 1000 live births, as per Sample Registration System surveys. ¹³⁻¹⁵

This was further strengthened by the targeted action by NRHM on these special states requiring attention, namely the empowered action group states. Therefore, providing basic Health services to all the citizens as guaranteed entitlements would be attempted under the NRHHM. ¹⁶

Nevertheless, beyond the MDGs, the current scenario in India is to catch up with Sustainable Development Goals (SDG). The goal 3 of SDG is to ensure healthy lives and promote well-being for all at all ages. The targets are focused on reducing the mortality further, with a timeline of 15 years. It is prudent for the policy makers and programme implementers to ensure credible, accountable and quality in services rendered through NRHM, keeping in mind the SDGs and working with commitment and political will. ¹⁶

The twelfth five year plan recommendations need to address the following aspects:-

- Increase in total public expenditure as % of GDP,
- Principles of allocation to state,
- Principles of resource allocation to districts,
- The problem of making resource allocation responsive to local needs as expressed by communities and as assessed by public health studies,
- The mechanisms for improved absorption of funds,
- The monitoring and achievement of substantial reductions in out of pocket expenditure in both public and private sector, [e.g. The fulfillment of the social protection obligations of the public health sector].

The provision of healthcare should move closer to people to enable easy and timely access to quality care. Ideally one must be able to access the health services in their village itself for which, we require a long term goal of setting-up of one sub-centre in each village. Prioritization of facilities and outreach centers for development may be carried out by "access mapping". Infrastructure development must be prioritised accordingly by taking into consideration both population served and standards of access.⁵

The number of primary and secondary care beds required in the district should be based on population and epidemiological norms. For 10 lakh population we could start with a minimum of 500 beds and increase beds in facilities depending on bed occupancy rates. Maximum size of a district hospital could also be fixed. We however would have a base line of 30 beds in a CHC and 200 for a district hospital in a population of 10 lakhs. WHO norms

are 1500 beds for 10 lakhs. The twelfth plan would therefore need to plan for much larger district hospitals with at least 200 beds (for a ten lakh population) with an additional 100 beds for every further 10 lakhs population and the ability to support and complete set of district level services as envisaged in the IPHS.⁵

The current establishment of sub centre is on a population norm of 5000 for the plains and of 3000 for the hilly/tribal/desert areas. The approach paper to the 12th plan mentions that the aim should be to locate a sub centre in every panchayat. There would be provision for at least one health sub centre in every panchayat. The Twelfth five year plan could aim to achieve universal access to a health care facility- with adequate infrastructure in this five year period. ⁵

The coverage of NRHM was extended to almost 743 million-population spread over 642 districts, 2502 sub divisions, 6348 blocks, and 638588 villages. All the 35 States and union territories of India were categorized in four groups as per amount of focus to be put on those states. A review findings established that NRHM was not uniformly implemented across the country and poor performing states were identified and categorized in high focus category. [Example: high focus non- North- Eastern States & North- Eastern States]. ¹⁷

NRHM was launched to provide accessible, affordable, accountable and effective primary healthcare facilities, especially to the poor and vulnerable sections of the population. By reviewing the targets and achievements of the National Rural Health Mission it can be found that certain targets as envisaged in 2005 at the launch of NRHM have not been achieved. This is because public health is a State subject and there have been issues of lack of capacities and human resource shortage in certain States and general underfunding for health sector. ¹⁸

An official review of the union government's ambitious NRHM has described it as a 'minor success', adding that the results have been heartening when compared to the past experience in implementing other national public health programmes.

CONCLUSION

NRHM has been a mammoth effort by the union government to build the public health infrastructure of the nation. the mission deserves its credit for empowering the rural India in health care, especially in States with poor health related indicators. NRHM has been a pioneer in reiterating the need for community participation, coupled with intersectoral convergence, to bring about a paradigm shift in the indicators, which has been reasonably achieved in most of the States.

Taking forward the foundations laid by the NRHM, it is essential for the forthcoming policies and plans to focus on capacity building, not only on the infrastructure and technical aspects, but also on streamlining the health workforce, which is crucial to sustaining the public health infrastructure. There is also an imminent need to focus on forging a sustainable public private partnership, which will deliver quality services, and not compromise on the principles and identity of the public health system of the country in its pursuit to achieve universal health coverage and sustainable development goals.

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