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Health scenario of Assam: A study

Sujata Choudhury

choudhury Sujata23@gmail.com

Gauhati University, Guwahati, Assam

ABSTRACT

NRHM is a crucial health initiative taken by the government to improve the health of the rural masses with the special attention to the disadvantaged groups including women and children. In this developing country with illiteracy, poverty, disparity, malnutrition etc., among the rural population, the mission aimed to have dramatic changes in the health status by providing affordable, accessible and available healthcare facility. Assam was embraced by the umbrella of the mission as one of the special focus states. Various initiatives and schemes have been undertaken under the mission to positively affect the health status of the state. An attempt is made in this paper to analyze the performance and effectiveness of the role played by the mission to meet its goals and to change the health scenario of the state. Relying on the available secondary data, the paper shows the improved health indicators and the health system during the period of NRHM. Also, an attempt is made to focus on the existing lacuna of the mission or its performance.

Keywords: NRHM, Health, Infant mortality rate, Under-five mortality, Maternal mortality, Infrastructure, Expenditure

1. INTRODUCTION

As a major welfare initiative of the central government, the NRHM addressed the health and health care system in the rural areas of the country with the aim to provide accessible, affordable and quality healthcare to the rural population, especially the vulnerable group. Encompassing Assam as one of the 18 special focus states, the National Rural Health Mission (NRHM) came into operation in the state in November 2005. The thrust of the mission is on establishing a fully functional, community owned, decentralized health delivery system with inter-sectoral convergence at all levels, to ensure simultaneous action on a wide range of determinants of health such as water, sanitation, education, nutrition, social and gender equality. The mission initially mooted for 7 years (2005-2012) has been extended to 12th five year plan period by the Ministry of Health Government of India. The mission (NRHM) became a submission of National Health Mission (NHM) with the introduction of the National Urban Health Mission (NUHM) by the Union Cabinet vide its decision dated 1st May 2013.

2. HEALTH SCENARIO IN ASSAM

Assam situated in the North Eastern part of the country with total population 3,12,05,576 (census 2011) with 86% rural population. The northeastern region was declared as a special category state by the government of India in 1991. Despite the richness of natural endowment, the region is one of the most backward areas of the country. The purpose of the proposed study is to see the performance of the mission in the state in three dimensions like health infrastructure, public health expenditure and health indicators. It's a study of the impact of NRHM on changing the health status of the mission.

2.1 Infrastructure in Assam

Physical health infrastructure is very important for providing an effective health care to the people. The healthcare infrastructure in rural areas has been developed as a three-tier system and is based on the population norms of 5000, 30,000 and 1,20,000 population per SC, PHC, and CHC respectively in plain areas and 3000, 20,000 and 80,000 population respectively in tribal/hilly/desert areas (*table 1*).

Table 1: Category of health center population norms

| | General areas | Tribal/Hilly/Desert areas |
|-----|---------------|---------------------------|
| SC | 5,000 | 3,000 |
| PHC | 30,000 | 20,000 |
| CHC | 1,20,000 | 80,000 |

The existing number of SCs, PHCs, and CHCs in 2005 in Assam areas represented in *table 2* that states the figure as 5109, 610 and 100 respectively. In 2010 there were 4604, 856 and 108 SCs, PHCs and CHCs in Assam. There was the fall in the number of SCs in 2010 because of the up gradation of few SCs as PHCs and CHCs.

Table 2: Health infrastructure in Assam

| Year | SCs | PHCs | CHCs | Total |
|------|------|------|------|-------|
| 2005 | 5109 | 610 | 100 | 5819 |
| 2010 | 4604 | 856 | 108 | 5568 |

Source: Rural health care system in India

Average Rural Population covered by each public health center is considered as very important to indicate the efficiency of the government to provide healthcare facility to its people. **Table 3** represents the average rural population covered by each category of public health institute in India and in Assam on 31st March 2017. Assam recorded 5,801, 26,437 and 169,665 SCs, PHCs and CHCs respectively and all India averages as 5,337, 32,505 and 148,248 respectively.

Table 3: Average Rural Population covered by SC, PHC, and CHC

| | Average Rural Population [Census 2011] covered by an (As on 31st March 2017) | | |
|-----------|--|--------|---------|
| | Sub Centre | PHC | CHC |
| Assam | 5,801 | 26,437 | 169,665 |
| All India | 5,337 | 32,505 | 148,248 |

Source: Rural health care system in India

The availability of the health infrastructure represents the level of development of the health care system. As per Rural Health Statistics (2015-16), SC, PHC and CHC in the State covered average population of 5,801, 26,437 and 1,77,530 respectively against the national average of 5,377, 32,884 and 1,51,316. Thus, comparatively, the health centers in the State (except PHC) were overburdened. The position relating to the availability of health centers *vis-a-vis* requirement as on 31 March 2016 is shown in following **table 4**. There is 32.21%, 8.81% and 45.68% shortfall of SCs, PHCs, and CHCs respectively in the state.

Table 4: Availability of health centers against requirement and shortfall in Assam

| Category of the health center | Numbers required as per population as on 31 March 2016 | Numbers available as on 31 March 2016 | Shortfall(in percent) |
|-------------------------------|--|---------------------------------------|-----------------------|
| SC | 6,817 | 4,621 | 2,196 (32.21) |
| PHC | 1,112 | 1,014 | 98 (8.81) |
| CHC | 278 | 151 | 127 (45.68) |

Source: Information furnished by NRHM, Assam.

2.2 Health Expenditure

Public health expenditure is considered very important to meet the health needs of the rural underprivileged population. For the implementation of various programmes under NRHM, funds are pooled together under a “Mission Flexi Pool” and funds are allocated under five heads:

- i. Reproductive and Child Health Programme
- ii. NRHM Additionalities,
- iii. Universal Immunization Programme,
- iv. National Disease Control programmes
- v. Intersectoral convergence.

As the table 5 shows the fund allocated under NRHM for Assam has increased significantly in the successive years. It increased from 86,679.24 lakhs in 2007-08 to 134,246.06 lakh in 2011-12. the mission made the provision that the high focus states can spend one-third of their total fund for appropriate physical health infrastructure. the share of NRHM Additionalities that cover different physical infrastructure facilities is the highest. as a percentage of total fund allocation, it was 65.15% in 2007-08 and 50.57% in 2011-12.

Table 5: Budget allocation under NRHM for Assam (Rs in lakh)

| Year/ programme | Reproductive and child health programme ii | NRHM Additionalities | Universal immunization programme | National disease control programme | Inter sectoral convergence | Total |
|-----------------|--|----------------------|----------------------------------|------------------------------------|----------------------------|------------|
| 2007-08 (BE) | 20147.59 | 56471.00 | 2362.70 | 7668.00 | 29.70 | 86,679.24 |
| 2008-09 (BE) | 27438.00 | 82061.00 | 2136.00 | 6706.00 | 23.00 | 118,364.00 |
| 2009-10 (BE) | 31026.90 | 64687.31 | 2333.03 | 7324.35 | 2431.32 | 107,802.91 |
| 2011-12 (BE) | 52753.28 | 67884.47 | 2238.32 | 7482.84 | 3887.15 | 134,246.06 |

*BE: Budget Estimates

Source: various issues of state implementation plan 2007 to 2011-12

The Programme Implementation Plan (PIP) approved state share for the years and state share sanctioned/received from Assam government both shows increase over the years (table 6). In 2007-8 was Rs 6000 lakhs and it increased to Rs 11400 lakh in 2010-

11. PIP approved state share also increased in the same period from Rs7256 lakh to Rs13878 lakh. During the period 2007 to 2011 state share sanctioned exceed the PIP approved state share in the state.

Table 6: State government contribution to the NRHM (Rs in lakhs)

| Year | PIP approved state share | State share sanctioned/received from Assam government |
|---------|--------------------------|---|
| 2007-08 | 7256.00 | 6000.00 |
| 2008-09 | 8701.00 | 8997.67 |
| 2009-10 | 13087.00 | 8763.62 |
| 2010-11 | 13878.00 | 11400.00 |

Source: State Programme Implementation plan2011-12, NRHM, Assam PIP approved state share

2.3 Health indicators in Assam

The status of health of a community is measured by indicators, such as birth rate, death rate, infant mortality rate, maternal mortality rate, population coverage by hospitals, population and hospital bed ratio, doctor-patient ratio etc. Infant mortality rate and maternal mortality rate are widely considered as the indicator of the level of development of the health care system and the status of women in the society. According to the sample registration system’s data, the birth rate decreased from 24.8 in 2003 to 20.4 in 2016 in India whereas for Assam the figures were 26.3 in 2003 and 21.7 in 2016. the death rate also decreased both for India and Assam. It was 8.0 in 2003 and 6.4 in 2016 for India and 9.1 in 2003 and 6.7 in 2016 for Assam. The Infant mortality rate also fell from 60 to 34 for India and 67 to 44 for Assam in the same period (*table7*). In all the cases of BR, DR, and IMR, Assam is also above all India representing a poor health status in the state. Immunization is considered as important initiatives to improve children (infant) health. But, it is a matter of serious concern that still the state is unable to reach 100% immunization. In rural Assam, only 58.2% of children of age 12-23 months are fully immunized in contrast to 63.7% fully immunized in case of urban Assam.

Table 7: Birth Rate (BR), Death Rate (DR) and Infant Mortality Rate (IMR) in Assam and India

| | Year | BR | | | DR | | | IMR | | |
|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | Total | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban |
| India | 2003 | 24.8 | 26.4 | 19.8 | 8.0 | 8.7 | 6.0 | 60 | 66 | 38 |
| | 2016 | 20.4 | 22.1 | 17.0 | 6.4 | 6.9 | 5.4 | 34 | 38 | 23 |
| Assam | 2003 | 26.3 | 27.2 | 18.0 | 9.1 | 9.5 | 5.9 | 67 | 70 | 35 |
| | 2016 | 21.7 | 22.8 | 15 | 6.7 | 7.1 | 4.9 | 44 | 46 | 22 |

Source: SRS 2005 and SRS 2017

Even in the case of under 5 mortality rate, Assam also shows a poor status as compared to India. In 2005 U5mortality rate was 84 in India and 74 for Assam. According to NFHS 2015-16, it was 56 for Assam and 50 for India. Also in both rural and urban the figure are higher than that for India (table 8). The poor health status represented by maternal mortality rate shows a poor situation in Assam as compared to all India. The following table 9 depicts the data of sample registration system for maternal mortality in Assam and India. It is declining for both India and Assam. But the figure is always greater in the case of Assam. According to SRS2004-05 MMR was 480 for Assam and 254 for India. And in SRS 2011-12 it declined to 300 and 167 for Assam and India respectively.

Table 8: Under-5 Mortality Rate in Assam and India

| Year | Assam | India |
|--------------|-------|-------|
| 2005 | 84 | 74 |
| 2012 | 75 | 52 |
| NFHS 2015-16 | Total | 56 |
| | Rural | 58 |
| | Urban | 40 |

Source: Registrar General of India; National Family Health Survey 3 and 4- National and State Fact Sheet

Table 9: Maternal Mortality Rate in Assam and India

| | Assam | India |
|--------------|-------|-------|
| SRS, 2004-06 | 480 | 254 |
| SRS, 2007-09 | 390 | 212 |
| SRS, 2010-12 | 328 | 178 |
| SRS, 2011-13 | 300 | 167 |

Source: Registrar General of India- SRS

Table 10: Percentage of anemia affected women in Assam (in %)

| | NFHS-3 (2005-06) | NEHS-4 (2015-16) |
|---------------------------|------------------|------------------|
| All women (15-49) | 55.3 | 53.0 |
| Pregnant women (15-49) | 57.9 | 50.3 |
| Non-pregnant women(15-49) | 55.2 | 53.1 |

Source: NFHS 3 and NFHS 4

One serious issue related to infant and maternal mortality is anemia among the women. The percentage of anemia affected women is also high in Assam. It is observed from **Table 10** that more than 50% of women in the state are affected by anemia. In the last 10 years, the percentage of anemia affected women was reduced by only 2%. Similarly, more than 50% of pregnant women in 2015-16 are anemia affected instead of 57.9% in 2005-06. For reducing MMR and IMR, elimination of anemia is highly required.

3. SUMMARY AND CONCLUSION

National Rural Health Mission (NRHM) has been a noble experiment in the direction of improving the status of health in the country. After the implementation of NRHM changes have occurred in all the parameters. NRHM has clearly fuelled the accelerated progress towards provisioning of quality health care to the citizens of the country and the improved indicators are a testimony to the same. At the time of introduction of NRHM, the health status of Assam was worse and so the state was embraced as the high focus state and thus was given special attention. The mission has taken the initiatives to have a dramatic change in the health status also in Assam along with the other states of the country. It is able to improve the health infrastructure in the rural Assam. Though the health centers in the state (except PHC) were comparatively overburdened the mission has increased the availability of hospitals and ensured quality health care in the state. Among the northeastern states, the density of rural health center as a whole is best in the state. The population coverage per rural health care institute is less in the state as compared to other northeastern states. The fund allocated under the mission to the state is increasing significantly. Thus there is overall a positive impact of the initiatives of the mission on the health status of the state and in due course of time, we can hope even better impacts.

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BIOGRAPHY



Sujata Choudhury
Research Scholar
Department of Economics
Gauhati University, Guwahati, Assam