CHAPTER I : INTRODUCTION

1.1 Background

Our country has registered significant progress in improving life expectancy at birth as well as reducing infant and maternal mortality over the last few decades. The Infant Mortality Rate[1] decreased from 80 in 1990[2] to 39 in 2014[3]. Similarly, Maternal Mortality Ratio[4] decreased from 437 in 1990[2] to 167 in 2011-13[5]. Despite such progress, a high proportion of the population, especially in rural areas, continues to suffer and die from preventable diseases, pregnancy and child-birth related complications as well as malnutrition.

The Ministry of Health and Family Welfare (Ministry) has a large number of schemes to support States in a range of health sector interventions and many of the schemes pertain to disease specific control programmes. Given the status of public health infrastructure in the country, particularly in the Empowered Action Group (EAG) States[6] and the North Eastern States, it will not be possible to provide the desired services till the infrastructure is sufficiently upgraded.

Government of India therefore launched the National Rural Health Mission (NRHM)[7] on 12 April 2005 throughout the country with special focus on 18 States[8] including eight EAG States, the North-Eastern States, Jammu and Kashmir and Himachal Pradesh to provide accessible, affordable and quality health care to the rural population, especially the vulnerable sections. The NRHM seeks to establish functional health facilities in the public domain through revitalisation of the existing infrastructure and fresh construction or

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1 The Infant Mortality Rate is the number of deaths in children under one year of age per 1,000 live births.

2 Source: India Country Report 2015 of Ministry of Statistics and Programme Implementation.

3 Source: Statistical Report 2014 of Sample Registration System of Office of the Registrar General and Census Commissioner, India.

4 The Maternal Mortality Ratio is the number of women who die from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 1,00,000 live births.

5 Source: Statistical Report 2011-13 of Sample Registration System of Office of the Registrar General and Census Commissioner, India.

6 Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh, Odisha, Rajasthan, Uttar Pradesh and Uttarakhand

7 National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM) are sub-missions under the National Health Mission (NHM).

8 Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Jammu and Kashmir, Manipur, Mizoram, Meghalaya, Madhya Pradesh, Nagaland, Odisha, Rajasthan, Sikkim, Tripura, Uttaranchal and Uttar Pradesh.

renovation wherever required. NRHM also seeks to improve service delivery by putting in place enabling systems at all levels.

1.2 Objectives of the Mission

The important objectives of NRHM, are, *inter-alia*:

- Reduction in child and maternal mortality
- Universal access to public health care services with emphasis on services addressing women's and children's health and universal immunization.
- Prevention and control of communicable and non-communicable diseases, including locally endemic diseases.
- Access to integrated comprehensive primary health care.

The Ministry, in its documents 'Framework of Implementation 2005-2012' and 'Framework of Implementation 2012-17', prescribed expected outcomes in respect of Infant Mortality Rate (IMR), Maternal Mortality Ratio (MMR), Total Fertility Rate (TFR)[9], etc., to be achieved by the end of 11th and 12th Five Year Plan periods.

1.3 Organisational structure

Health is a State subject. The role of the Central Government is to push reforms in States through additional financial resources. NRHM has the following organization structure at Central and State levels.

1.3.1 Central level

The Mission Steering Group (MSG) headed by the Union Minister of Health and Family Welfare provides policy direction to the Mission. Financial proposals brought before the MSG are first placed before the Empowered Programme Committee (EPC), which is headed by the Secretary of the Ministry. The Mission is headed by the Additional Secretary cum Mission Director (AS&MD).

[9] The average number of children expected to be born per woman during her entire span of reproductive period

1.3.2 State and district levels

In the States, the Mission functions under the overall guidance of the State Health Mission headed by the Chief Minister. The State Health Society (SHS), headed by the Chief Secretary, carries out the functions of the Mission. The District Health Mission is headed by the Chair Person, Zila Parishad/ Mayor as decided by the State depending upon classification of the district as rural or urban. A chart depicting various functionaries and some of their duties at State level is shown below in **Chart-1.1**:

Chart-1.1: Various functionaries and their duties at State level

State Health Mission (SHM)	•Responsible for health system oversight •Consideration of policy matters related with health sector •Review of progress in implementation of NHM, etc. The functions of the Mission are carried out through the State Health Society.
State Health Society (SHS)	•Approval/endorsement of Annual State Action Plan. •Detailed review of expenditure and implementation. •Release of funds to the District Health Societies. •Follow up action on decisions of the State Health Mission.
District Health Mission (DHM)	•The functions of the Mission are carried out through the District Health Society.
District Health Society (DHS)	•Responsible for planning and managing all health and family welfare programmes including NRHM in the district. •Receive, manage and account for funds received from the SHS. •Facilitate preparation of integrated district health development plans for health, nutrition, etc.

1.3.3 Other functionaries for delivery of services under NRHM

NRHM seeks to strengthen the delivery of public health services in the rural areas at the village, Sub-Centre, Primary Health Centre and Community Health Centre levels. At the village level, trained female community health worker *viz.*, ASHA (Accredited Social Health Activist) is to be appointed in the ratio of one per thousand of population. ASHAs act as the interface between the community and the public health system, and receive performance-based compensation for promoting universal immunization, referral and escort services for Reproductive and Child Health (RCH) and other healthcare delivery programmes. A brief description of Sub-Centre, Primary Health Centre and Community Health Centre is given below:

(i) **Sub Centres (SCs) –** These are the first contact point between the primary health care system and the community and provide services of ante-natal care, post-natal care, immunization, minimum laboratory services of pregnancy testing/estimation of hemoglobin, counselling for family planning, etc. SCs have been further categorised into Types 'A' and 'B'. The former provides all recommended services except facilities for delivery; the latter provides facilities for delivery also.

(ii) **Primary Health Centres -** Primary Health Centres (PHC) are the first contact point between village community and the medical officer. They provide maternal and child healthcare including family planning, counselling and appropriate referral for safe abortion services (MTP[10]), nutrition services such as diagnosis and management of anaemia and Vitamin-A deficiency. Each PHC acts as a referral unit for six SCs and refers cases to Community Health Centres and higher order public hospitals at sub-district and district levels.

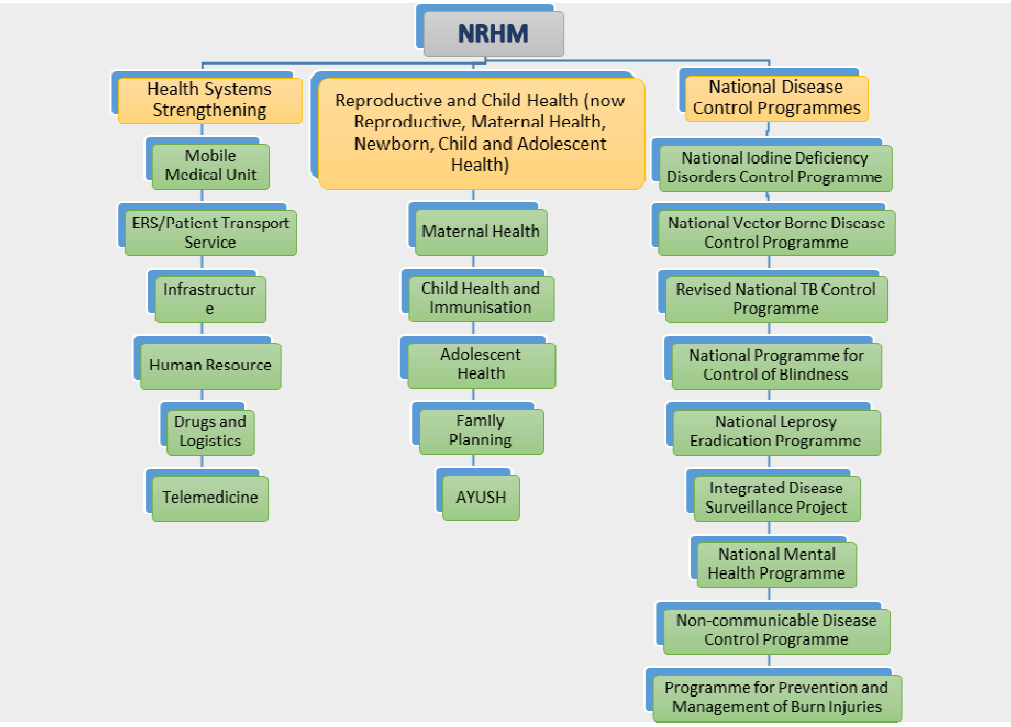
(iii) **Community Health Centres -** Community Health Centres (CHC) are 30-bedded hospitals providing specialist care in Medicine, Obstetrics and Gynecology, Surgery, Paediatrics, Dental and AYUSH[11]. It serves as a referral centre for four PHCs and also provides facilities for obstetric care and specialist consultations. A CHC can be declared a fully operational **First Referral Unit (FRU)** only if it is equipped to provide round-the-clock services for emergency obstetric care, new born care and blood storage facility, in addition to all emergency services that any hospital is required to provide.

1.4 Components of NRHM

NRHM is an umbrella programme subsuming most of the earlier programmes in the health and family welfare sectors and comprises the components as depicted in **Chart-1.2** given below:

[10] Medical Termination of Pregnancy
[11] Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy

Chart-1.2: Components of NRHM



Source: Ministry's website: nrhm.gov.in

The Reproductive and Child Health (RCH) Programme was launched in October 1997 with the aim of reducing infant, child and maternal mortality rates. RCH was subsequently revised and included (RCH-II) as a component of the National Rural Health Mission (NRHM) launched in April 2005.

1.5 Financial arrangements under NRHM

The Ministry releases funds[12] to State Governments based on NRHM State Programme Implementation Plans (PIPs) approved by the Ministry. All Union Territories (UTs) are fully funded by the Ministry. Out of ₹ 81,081.77 crore released by the Ministry under NRHM during the period 2011-16, ₹ 47,383 crore pertained to Reproductive and Child Health.

1.6 Audit objectives

Considering the strong correlation between facilities created and the health outcomes (maternal and infant mortality rates) and given that Reproductive and Child Health (RCH) indices are pursued under the Millennium

[12] In proportion to their share, which was 85:15 of PIP in 2011-12, 75:25 in 2012-15, and 60:40 from 2015-16 onwards in respect of all States, except for the North East States and the three Himalayan States (Jammu and Kashmir, Uttarakhand and Himachal Pradesh), where the proportion has been 90:10 throughout.

Development Goals[13], this performance audit has mainly concentrated on RCH under NRHM. The specific objectives of this performance audit have been decided with the assistance of Evidence for Policy Design (EPoD), operating through the Institute for Financial Management and Research (IFMR), Chennai after analysis of all available datasets (District Level Health Survey-3 2007-08), Health Management Information System (HMIS) 2013-15, Annual Health Survey (2012-13) and National Sample Survey Round 71 (2014) with regard to prevailing health conditions. These objectives are:

a) Assess the impact of NRHM on improving Reproductive and Child Health in the country by the:

   i. Extent of availability of physical infrastructure;

   ii. Extent of availability of health care professionals; and,

   iii. Quality of health care provided, and services under RCH (Chapter 7)

b) Mechanism for data collection, management and reporting which serve as indicators of performance (Chapter 8).

1.7 Scope of Audit

The performance audit covered the period from 2011-12 to 2015-16. All the States (except Goa) and UT of Andaman and Nicobar Islands were selected (as per the rural population criteria). In the case of Nagaland, Audit collected information through survey sheets only, since the performance audit of NRHM for the period 2009-14 had already been conducted in the State and findings incorporated in Audit Report No. 1 of 2016 placed in the State Legislature.

As in the case of selection of objectives for the performance audit, evidence based approach[14] has been adopted for determining the sampling strategy with the assistance of Evidence for Policy Design (EPoD), operating through the IFMR, Chennai. A focused sampling strategy was adopted to sample only the rural districts so that implementation of the programme in relation to the envisaged outcomes could be assessed specifically. A district has been classified as rural if rural population of the district is at least 70 *per cent* of its population. Districts within a State have been stratified into three categories (I - low performance districts, II - medium performance districts and III - high

[13] Eight goals framed by the United Nations, to which India is a signatory.

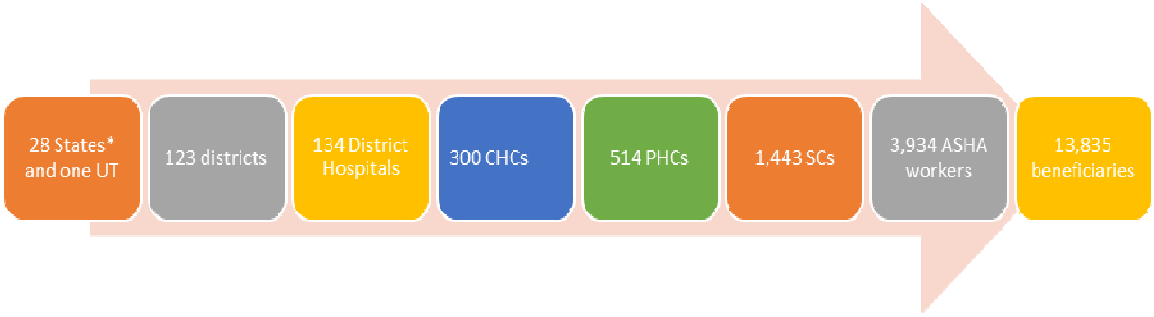
[14] Evidence based approach entailed examination of all the available and reliable data sets containing information on the prevailing health conditions in the country in order to evolve a robust and focussed audit approach especially for setting of audit objectives and selection of samples.

performance districts) based on health indices – infrastructure, health personnel, health services and data (that are relevant for the audit objectives being pursued). The number of districts to be selected from different categories within a State/UT is on proportionate basis with positive bias in favour of low performing districts. The following statistical framework was adopted for selection of sample:

- From each State/UT, 25 *per cent* of the districts (with minimum of two and maximum of 10) satisfying the rural population criterion of 70 *per cent* were selected from each stratum using Simple Random Sampling without Replacement (SRSWOR).
- Within each selected district, two (if total number of Blocks/Tehsils in the district is up to 10) and three Blocks/Tehsils (if total number of Blocks/Tehsils is more than 10) were selected. All the CHCs/ SDHs within the sampled Blocks/ Tehsils were selected.
- Under each CHC, two PHCs linked to the sampled Blocks/Tehsils were selected by using SRSWOR method.
- Three SCs linked to the sampled PHCs were selected using SRSWOR method.
- All the ASHAs (subject to maximum of three) attached with the selected SCs were selected.
- 10 eligible beneficiaries[15] per selected SC using SRSWOR were selected for survey.

The sample for the performance audit is as depicted in **Chart-1.3.**

Chart-1.3: Sample selection



* Only surveys carried by the Accountant General, Nagaland

[15] Women who gave birth within the last 24 months

1.8 Audit methodology

The performance audit commenced with an entry conference with the Ministry on 5 May 2016 where the audit objectives, scope and methodology were explained. Similar entry conferences were held in each State by the respective Principal Accountants General/Accountants General with the nodal departments involved in the implementation of the programme. Thereafter, records relating to the programme were examined in the Ministry, nodal departments and implementing agencies in the States between April 2016 and August 2016. Surveys of the selected facilities, ASHAs and beneficiaries were also carried out. Besides, data drawn from the IT-based system, namely Health Management Information System (HMIS) used by the Ministry to evaluate the pan-India performance of NRHM, were also analysed. After completion of audit, an exit conference was held with the Ministry on 28 February 2017 to discuss the audit findings. Exit conferences were also held at the State levels, where State specific findings were discussed. The Report has taken into account the replies furnished by the Ministry (December 2016) and States, in addition to the points discussed in the exit conferences.

1.9 Sources for Audit criteria

The following are the sources for audit criteria:

a) NRHM Framework for Implementation (2005-12);

b) NHM Framework for Implementation (2012-17);

c) NRHM Operational Guidelines for Financial Management;

d) Indian Public Health Standards (IPHS) – Guidelines (2007 and 2012) for Sub-Centres (SC), Primary Health Centres (PHC), Community Health Centres (CHC), Sub-District/ Sub-Divisional Hospitals (SDH) and District Hospitals;

e) Operational guidelines for Quality Assurance in public health facilities 2013; and

f) Assessor's Guidebook for Quality Assurance in District Hospitals 2013, Community Health Centres (First Referral Unit) 2014 and Primary Health Centres 2014.

1.10 Previous audit findings

Performance audit of NRHM for the period 2005-06 to 2007-08 was conducted between April to December 2008 and the audit findings were reported to the Parliament through CAG Audit Report no. 8 of 2009-10 (Union Government-Civil). The Public Accounts Committee (PAC) (Fifteenth Lok Sabha) in its 32nd Report (2010-11) had made observations/recommendations on the audit findings of the said Report.

The present performance audit of NRHM for 2011-12 to 2015-16 revealed that deficiencies pointed out in the earlier CAG's Report persisted despite assurances by the Ministry to the PAC. Details are given in **Table-1.1** below:

Table-1.1: Status of the implementation of some important observations/ recommendations of the PAC

Sl. No.	Recommendations of the Public Accounts Committee	Response of the Ministry	Status as per current audit report
1.	State Governments take immediate corrective steps to maintain requisite infrastructure facilities and standard hygiene levels in all the health facilities. **(Recommendation no. 12)**	The Ministry had asked all States, through its letter dated 28 January 2012, to issue necessary instructions to all to comply with the guidelines of Government of India in this regard.	Infrastructural facilities continued to be below par in some of the selected health care facilities country-wide. **(Para nos. 3.3).**
2.	Immediate steps must be taken for recruitment/ deployment of adequate and skilled human resources in the health facilities in the rural areas. **(Recommendation no. 13)**	The posts in the health facilities are filled up by respective State/UT Governments and GOI had repeatedly impressed on the State/UT Governments to fill up the vacant posts at the earliest.	In 111 District Hospitals audited in 23 States, shortage as per IPHS norms and sanctioned strength of doctors/specialists (33 and 34 *per cent* in both categories), nurses (25 and 18 *per cent*) and paramedical staff (54 and 27 *per cent*) was observed. Similar shortage of manpower as per IPHS and as per sanctioned strength was observed in 43 Sub-District/Sub-Divisional Hospitals audited in 10 States. Significantly, 77 to 87 *per cent* of the selected CHCs were functioning without specialist doctors. In 13 States, 67 PHCs were functioning without allopathic or AYUSH doctor **(Para nos. 5.1 to 5.5)**
3.	Necessary steps should be taken to provide necessary infrastructure and standard	SC/ PHC/ CHC to be upgraded, and living facilities constructed	No significant improvement was noticed as staff quarters were lying vacant at various health

Sl. No.	Recommendations of the Public Accounts Committee	Response of the Ministry	Status as per current audit report
	living facilities at all the SCs/ PHC/ CHCs so that the doctors and other medical staff are encouraged to stay there. **(Recommendation no. 15)**	within specified time frame by State/ UT governments.	facilities due to non-availability of basic amenities, unwillingness of staff to occupy the quarters due to their inconvenient location, etc. **(Para no. 3.5)**
4.	Department should strengthen internal controls to check delay in procurement process, avoid excess procurements and stock-outs and ensure purchases of good quality medicines and equipment at the most competitive rates in accordance with the canons of financial propriety. **(Recommendation no. 16)**	The procurement manual containing standard procurement procedures and practices to streamline and professionalize the procurement of health sector goods has been prepared and circulated to all States. Workshops on 'Best practices on Quality assurance and Quality Control Procedures' have been organized in September 2010.	In three States, discrepancies in procurement of drugs/ medicines were observed. **(Para no. 4.4).** In 17 States, 428 equipment (ultrasound, X-ray, ECG, auto analyzer, incinerator, OT equipment, etc.) costing ₹ 30.39 crore were lying idle for want of required personnel to operate them, lack of adequate space, etc. **(Para no. 4.3)**
5.	All possible steps should be taken including stringent periodic monitoring to ensure timely availability of adequate quantity of qualitative essential medicines, vaccines, etc., in all the health facilities. **(Recommendation no. 18)**	Procurements to be made by State/ UTs out of NRHM funds, ensuring timely availability of medicines, vaccines, diagnostics and other items, is primarily the responsibility of State/ UTs.	Shortfall in availability of drugs was observed in 24 States. **(Para no. 4.5)**

1.11 Acknowledgement

Audit acknowledges the cooperation and assistance extended by the Ministry of Health and Family Welfare, State Health Departments, implementing agencies and their officials and Evidence for Policy Design (EPoD), operating through the Institute for Financial Management and Research (IFMR), Chennai, during conduct of this performance audit.