Health, Medical and Family Welfare Department

2.1 Reproductive and Child Health under National Rural Health Mission

Executive Summary

The Reproductive and Child Health (RCH) programme initiated under NRHM emphasised public health measures essential for enhanced maternal and child survival and lower RCH morbidity. The performance audit of Reproductive and Child Health under National Rural Health Mission was conducted (during April to August 2017), covering the period from 2012-13 to 2016-17.

Annual Facility level surveys for identification and fixing of decentralised monitorable goals, indicators and gaps/deficiencies in the existing healthcare facilities and areas of interventions were not conducted. Bottom-up and community owned approach to public health planning was also not followed in preparation of State Program Implementation Plans (SPIPs).

The Department had not utilised fully the funds released in any of the years under review. Utilisation ranged between 38 and 44 per cent only during 2012-14 and between 39 and 46 per cent only during 2014-17. Shortfall in spending on maternal health ranged between 31 to 50 per cent during 2014-17. The expenditure on child health component did not exceed 26 per cent of the approved outlay in any year during the period 2014-17.

The institutional deliveries declined from 69 per cent (2013-14) to 42 per cent (2016-17) in public health facilities as compared to deliveries in private health facilities which registered an increase from 31 to 58 per cent. Telangana had a very high rate of Caesarean-section deliveries at 45 per cent out of the total deliveries reported in the State. In private health institutions it was higher at 67 per cent. Adequate attention on availability of required physical as well as human infrastructure in the health facilities was not accorded. Maternal Death Review (MDR) and the Infant Death Review (IDR) were largely not conducted. In other cases, these Reviews were ineffective. The State had achieved 100 per cent immunisation of children of 0 – 1 year age group. Maternal Mortality Ratio and Total Fertility Rate was satisfactory at State level.

2.1.1 Introduction

National Rural Health Mission (NRHM)[1] was launched in India in April 2005 with a view to provide accessible, affordable and quality health care to rural population, especially the vulnerable sections. NRHM is an umbrella programme subsuming the existing programmes

[1] The National Urban Health Mission (NUHM) as a Sub-mission of an over-arching National Health Mission (NHM) was launched on 20th January 2014, with NRHM being the other sub-Mission of National Health Mission

of health and family welfare. It comprises the components of health systems' strengthening, reproductive, maternal health, newborn, child & adolescent health and national disease control programmes.

The Reproductive and Child Health (RCH) programme initiated under NRHM emphasised[2] all public health measures were essential for enhanced maternal and child survival and lower RCH morbidity.

For the implementation of the above activities under RCH, the NRHM Framework (2005-12) underlined the need for upgradation of Community Health Centres (CHCs) as First Referral Units (FRUs) for dealing with Emergency Obstetric Care[3], 24X7 delivery services at the Primary Health Centres (PHCs) and operationalising of Sub-Centres[4] (SCs). As per NRHM Framework (2012-17), NRHM seeks to reduce the Maternal Mortality Ratio (MMR) in the country to 100 per one lakh live births, reduce Infant Mortality Rate (IMR) to 25 per 1000 live births and reduce the Total Fertility Rate (TFR) to 2.1 per woman.

2.1.1.1 Organisational Setup

At the Central level, the Mission Steering Group (MSG) headed by the Union Minister of Health and Family Welfare provides policy direction to the Mission.

At the State level, the Mission functions under the overall guidance of the State Health Mission (SHM) headed by the Chief Minister. The State Program Management Unit (SPMU) acts as the Secretariat to the State Health Mission. The State Society was headed by an Executive Director/Mission Director. Every district has a District Health Society (DHS), which is headed by the District Collector.

Primary Health Centre (PHC) is the first contact point between village community and the medical officer. The PHCs were envisaged to provide an integrated curative and preventive health care to the rural population with emphasis on preventive and promotional aspects of health care. The Community Health Centres (CHCs), constituting the secondary level of health care, were designed to provide referral as well as specialist health care to the rural population. Similarly, specialist services in providing emergency obstetrics care and neonatal care are to be made available in Area Hospitals (AHs) and District Hospitals (DHs).

NRHM would seek to empower the Panchayati Raj Institutions (PRIs) at each level, i.e., Gram Panchayat, Panchayat Samiti (Block) and Zilla Parishad (District). This was to take leadership to control and manage the public health infrastructure at district and sub-district levels. The Sub-Centre (SC) is the most peripheral and first contact point between the primary health care system and the community. The organisational structure of NRHM in the State is shown in Organogram below.

[2] care in pregnancy, all aspects of Essential Newborn Care, Immunisation, all aspects of prevention and management of malnutrition, family planning services, identification and management of anaemia
[3] cases of emergency with respect to the management of normal and complicated pregnancy, delivery and the postpartum period
[4] Sub-Centre is the first contact point between the primary health care system and the community

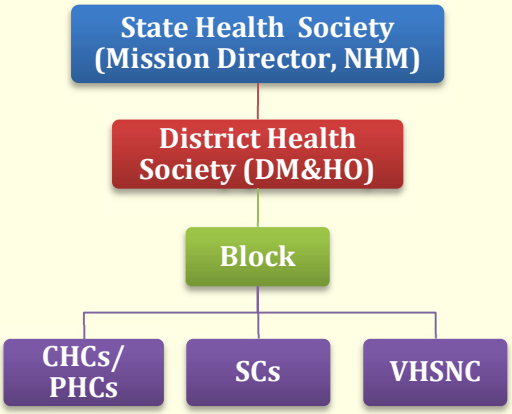
2.1.2 Audit Framework

2.1.2.1 Audit objectives

Performance audit of the RCH Programme under NRHM was carried out to assess

- the impact of NRHM on improving Reproductive and Child Health in the State by evaluating the extent of availability of physical infrastructure, the extent of availability of health care professionals and quality of health care provided,
- the mechanism of data collection, management and reporting which serve as indicators of performance.

Organisational structure of NRHM in the State



CHCs: Community Health Centres; **PHCs:** Primary Health Centres; **SCs:** Sub-Centres; **VHSNC:** Village Health Sanitation and Nutrition Committee

Source: 'NRHM Operational guidelines for Financial Management', January 2012

2.1.2.2 Audit Criteria

Audit findings were benchmarked against criteria sourced from the following:

⇒ Indian Public Health Standards (IPHS) – Guidelines (Revised 2012);

⇒ NHM Framework for Implementation (2012-17);

⇒ NRHM Operational Guidelines for Financial Management, 2012;

⇒ Guidelines of Janani Suraksha Yojana (JSY), 2005; Janani Shishu Suraksha Karyakram (JSSK), 2011; Rashtriya Bal Swasthya Karyakram (RBSK), 2013 etc.;

⇒ Operational guidelines for Quality Assurance in Public Health Facilities 2013;

⇒ Health Management Information System[5] (HMIS) data;

⇒ Assessor's Guidebook for Quality Assurance in District Hospitals 2013; Community Health Centres (First Referral Unit) 2014; Primary Health Centres (24 x 7) 2014;

⇒ Orders, circulars, etc., issued by the State Government from time to time; and

⇒ Sustainable Development Goals as envisioned by the United Nations.

2.1.2.3 Audit Scope and Methodology

The performance audit was conducted (during April to August 2017), covering the period from 2012-13 to 2016-17. It involved test-check of records in the State Health Society (SHS)/Commissionerate, at the State level. At the field level, three[6] District Health Societies, three District Hospitals (DHs) (out of six), nine Community Health Centres (CHCs)/Area Hospitals (AHs) (out of 157), 27 Primary Health Centres (PHCs) (out of 836) and 81 Sub-Centres (SCs) (out of 4,745) were also test-checked.

[5] Web based monitoring system maintained by Ministry of Health and Family Welfare, GoI
[6] Medak, Nalgonda and Warangal

Audit Sample

The districts were selected by Simple Random Sampling without replacement method (SRSWOR) method. In each sampled district, one DH along with three AHs/CHCs, nine PHCs and 27 SCs were selected for test-check under SRSWOR method. Details of sampled units are given *Appendix-2.1*.

Entry conference was held (April 2017) with the Special Chief Secretary to Government and the Mission Director, NHM, wherein audit objectives and criteria were explained. An Exit Conference was held with Government representatives in January 2018 to discuss Audit findings. Replies of the DMHOs/Medical Superintendent (DHs/AHs and CHCs)/ Medical Officer (PHCs) and the Commissioner of Health and Family Welfare (Mission Director, NHM) wherever available have been considered/incorporated at appropriate places in the Report. Views expressed by the Government during the Exit Conference and their responses in written replies have also been incorporated at appropriate places in the report.

Acknowledgement

We acknowledge the cooperation and assistance rendered by the officials of the Health, Medical and Family Welfare Department during the conduct of the Performance Audit.

Audit findings

2.1.3 Planning

2.1.3.1 Annual facility level surveys

Under NRHM guidelines, every health facility centre has to identify gaps in health care facilities, areas of interventions, etc., that would be required for providing quality health care. Every SHS will have to conduct an Annual Facility survey to finalise an annual plan of activities for creation and strengthening of infrastructure in health care facilities.

Audit, however, observed that no annual facility level surveys were conducted in the State. Therefore, identification and fixing of decentralised monitorable goals, indicators and gaps/deficiencies in the existing health care facilities, areas of interventions, etc. required for providing quality health care was not possible.

In their reply (January 2018) Government stated that proposals for conducting Annual Facility survey had been submitted to GoI in Program Implementation Plan (PIP) for the year 2017-18. The sanction for the same was awaited from GoI.

2.1.3.2 State Program Implementation Plans

The NRHM envisaged a bottom-up, decentralised and community owned approach to public health planning. The process begins at the block level, which prepares the 'Block Health Action Plan (BHAP)' and sends it to district. This is based on inputs/discussions with the implementing units. These BHAPs are then aggregated to form an Integrated District Health Action Plan (IDHAP). IDHAP is further sent to the State level. State Program Implementation Plan (SPIP) is to be prepared on the basis of District Health Action Plans (DHAPs).

Audit noticed that the SPIPs were prepared without obtaining any inputs from district/ village level authorities/committees during 2012-17. The Mission was thus being

implemented in the State without following the bottom-up approach. The gaps in services, areas of interventions, probable investment in each area, requirement and the availability of resources were also not identified.

Government accepted the audit observation and stated (January 2018) that in view of reorganisation of 10 districts into 31 districts in 2016, the inputs from districts and block level committees could not be considered. It was further stated that the same would be followed while preparing SPIPs from 2017-18 onwards.

2.1.4 Financial Management

2.1.4.1 Budget and Expenditure

NRHM is being implemented as a Centrally sponsored scheme and the funding was in the ratio 75:25 by GoI and State Government up to 2014-15 and revised to 60:40 from 2015-16 onwards. NRHM Funds are pooled together under a "Mission Flexi Pool" which is further divided into

- 'RCH' component for activities such as maternal health, child health, family planning, etc.
- 'Additionalities under NRHM' component for any additional activities like ASHA[7], RKS[8], Untied funds, annual maintenance grants, etc.
- 'Immunization' component for routine immunization and pulse polio activities and
- National Disease Control Programmes.

The funds received by the State are further disbursed to the District Health Societies in accordance with the requirements stated in the respective District Health Annual Plans (DHAPs). The district authority disburses funds to the blocks which in turn disburse funds to various implementing units (CHCs/PHCs/SCs/VHSNCs) for programme implementation activities. The year-wise details of funds released by the Ministry, State share released *vis-à-vis* the expenditure incurred during the last five years were as under:

Table-2.1

(₹ in crore)

Year	Opening balance	Central Share released	State share credited	Total fund available	Expenditure	Unspent balance (%)
2012-13	583.42	529.94	506.78	1620.14	720.25	899.89 (56)
2013-14	899.89	498.35	225.75	1623.99	617.44	1006.55 (62)
2014-15 (1 June 2014)	1006.55	0.03	21.48	1028.06	48.81	979.25* (95)
2014-15 (2 June 2014 to March 2015)	354.98*	278.83	142.36	776.17	315.80	460.37 (59)
2015-16	460.37	118.68	94.08	673.13	308.16	364.97 (54)
2016-17	364.97	423.52	433.37	1221.86	473.01	748.85 (61)

Source: Records of State Health Society

** The erstwhile State of Andhra Pradesh was bifurcated into AP and Telangana w.e.f. 2 June 2014. The unspent balance for 2014-15 as allocated to Telangana State, was adopted*

[7] Accredited Social Health Activist
[8] Rogi Kalyan Samiti

The year-wise utilisation was poor and non-utilisation ranged between 56 and 62 *per cent* during 2012-14 (composite State of Andhra Pradesh) and 54 and 61 *per cent* during 2014-17. Government replied (January 2018) that as the funds were received during last quarter of the financial years and carried forward to the next financial year for the purpose for which the fund had been released. Due to this reason huge unspent balances were available with SHS.

Substantial unspent balances calls for rationalising the procedure for timely release of funds by the Government to SHS.

(i) Utilisation of funds under free essential drugs initiative

Free essential drugs initiative was introduced under NRHM for ensuring uninterrupted availability of drugs in the public health system and relief to the patients in reducing the out-of-pocket expenditure on purchase of drugs.

The State incurred a meagre expenditure of ₹10.11 crore (12 *per cent*) against the allocation of ₹83.99 crore during 2014-17 on provision of free essential drugs as shown in Table-2.2.

The unspent balances ranged from 55 to 100 *per cent* during 2014-17. Government accepted the audit observation and promised to look into the matter.

Table-2.2 **(₹ in crore)**

Year	Allocation	Expenditure	Unspent (%)
2014-15	40.00	Nil	40.00 (100)
2015-16	23.89	1.07	22.82 (96)
2016-17	20.00	9.04	10.96 (55)
Total	**83.99**	**10.11**	**73.88 (88)**

Source: Records of State Health Society

Non-utilisation of funds on procurement of generic medicines for supply to public health facilities resulted in non-availability of essential medicines to patients.

2.1.4.2 Utilisation of funds under Maternal Health and Child Health

NRHM-RCH Flexible Pool is one of the components of NRHM funding, under which Audit examined two sub-components of Maternal Health and Child Heath. Scrutiny of approved projected outlay, i.e., State Program Implementation Plan (SPIP) *vis-à-vis* the expenditure under the two components of Maternal Health and Child Health revealed that expenditure on projected outlays under maternal health and child health was very poor.

Chart-2.1 (a)
Utilisation of funds under Maternal Health

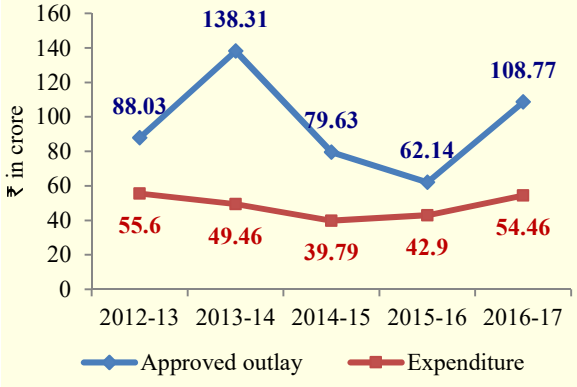
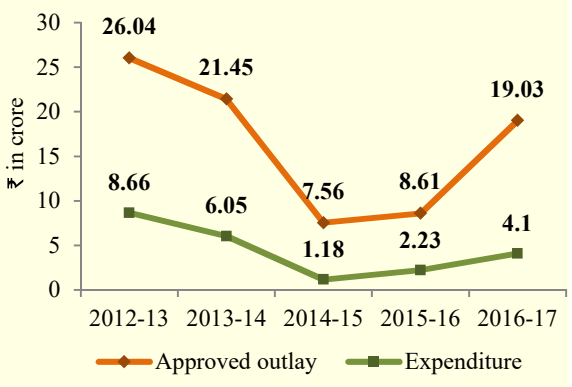


Chart- 2.1 (b)
Utilisation of funds under Child Health



Source: Records of State Health Society

The shortfall in spending on maternal health ranged between 31 to 50 *per cent* during 2014-17 whereas the expenditure on child health component had not exceeded 26 *per cent* of the approved outlay in any year during the period 2014-17. Shortfall in utilisation of funds under maternal and child health components showed ineffective implementation of RCH programmes and enhanced the risk of maternal and infant deaths.

Government replied (January2018) that the facility-wise analysis on utilisation of RCH funds would be conducted immediately.

2.1.4.3 Selection of an ineligible NGO

Area Hospital, Siddipet, of erstwhile Medak district entered (February 2015) into an agreement with an NGO[9] for providing vehicles for referral services at the rate of ₹8 per kilometre and drop back services to pregnant women and delivered mothers at agreed rate of ₹250 per case.

Audit observed that, the NGO did not have any motor fleet for executing the above services and the said services were performed by private individuals. An amount of ₹10.85 lakh towards payment for the above services[10] from JSSK funds had been released to an outside agency[11] (fuel filling station) not connected either with NGO or the owner of the vehicle.

Thus, agreement was entered into with one agency (NGO), vehicles were being operated by other agency (Hospital) and payments were released to a third agency (fuel filling station) which amounted to misutilisation of scheme funds. The matter calls for a probe by the Department.

Government replied (January 2018) that the DMHO would be asked to conduct a detailed enquiry and submit a report through the District Collector.

2.1.5 Implementation of Reproductive and Child Health services

Majority of pregnancy complications can be averted by preventive care of pregnant women, such as antenatal check-ups, early detection of risks, appropriate and timely management of obstetric complications, postnatal care, etc.

2.1.5.1 Antenatal Care (ANC)

Antenatal Care (ANC) to pregnant women (PW) required important considerations regarding diet, life-style and drug therapies to achieve a good foetal outcome with minimal maternal morbidity and mortality. Good ANC reduces the risk of childbirth complications. The World Health Organisation recommends that PW should receive four antenatal check-ups. Guidelines[12] also aimed to provide four ANCs to all PW for ensuring proper investigations like haemoglobin, blood grouping, urine examination, administration of two doses of Tetanus Toxoid (TT) and supply of 100 Iron Folic Acid (IFA) tablets. The first ANC was to be provided within 12 weeks, second within 14-26 weeks, third within 28-34 weeks and fourth check-up within 36 weeks up to term of pregnancy to monitor the progress.

[9] NGO named CARPED
[10] for Referral transport @ ₹8 per km and Dropback services @ ₹250 per case
[11] Sai Ranga filling station
[12] for Antenatal Care and Skilled Attendance at Birth, 2010 issued by MoH&FW

The data pertaining to the first three ANC check-ups to pregnant women for the period 2012-17 was not available with SHS. In their reply, Government confirmed (January 2018) that during 2014-17 the data of ANC check-ups was not captured in HMIS[13] data, although it was done at field level.

Iron Folic Acid (IFA) administration

Anaemia is considered as the leading cause of maternal mortality. Reproductive and Child Health (RCH) programme under NRHM, therefore, emphasised administration of IFA tablets for pregnant women for a period of 100 days.

During 2012-17, SHS reported that 41. 93 lakh pregnant women were registered for ANC. Further, it was seen that during the period 2012-15, up to 97 *per cent* and during 2015-17, cent *per cent* ANC registered women were given IFA tablets.

Audit, however, noticed that anaemia cases increased from 1.42 lakh in 2012-13 to 2.93 lakh in 2016-17. Similarly, severe anaemia cases also increased from 11,373 cases (2012-13) to 14,848 cases (2016-17) with maximum of 28,182 cases in 2015-16. Reasons for increase in cases of severe anaemia were not stated by Government.

In the three sampled districts, it was seen that the shortfall in administration of IFA tablets ranged from 2 to 19 *per cent*. Further, in Warangal district, the cases of severe anaemia increased drastically from 109 cases in 2012-13 to 2121 cases in 2016-17 despite the administration of IFA tablets up to 97 *per cent* of the registered ANC.

DMHO Warangal has assured that although the awareness about the consumption of IFA tablets by PW is a continuous programme at sub-centre level, all efforts would be made to improve the consumption of IFA tablets by PW.

Government replied (January 2018) that previously pregnant women were given only 100 IFA tablets during pregnancy but from 2016-17 all the pregnant women received 180 tablets (from 2nd trimester till delivery) and moderate to severe anaemia were given double the dosage (360 tablets). The reply is, however, not acceptable as the rise in anaemic cases during the period was contrary to the claim made by Government.

2.1.5.2 Deliveries

Institutional deliveries

Out of 41.93 lakh pregnant women registered for ANC during 2012-17, only 21.34 lakh (51 *per cent*) deliveries were reported by SHS. The data pertaining to the remaining 20.61 lakh women including any Medical Termination of Pregnancies (MTPs) was not furnished to Audit.

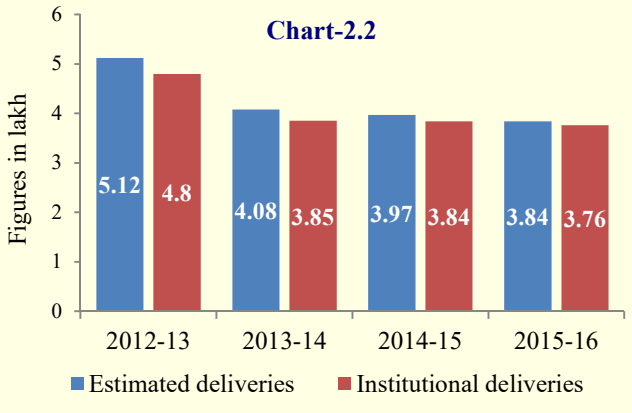
Achievement of Institutional deliveries against those targeted ranged from 94 to 98 *per cent* during the period 2012-13 to 2015-16[14].

[13] Health Management Information System
[14] data for Targeted deliveries for the period 2016-17 was not furnished by SHS

The number of deliveries in the year 2016-17 was 5.08 lakh. However, the target for Institutional deliveries for the year 2016-17 was not furnished to Audit.

As per SHS data, the institutional deliveries in public health facilities decreased from 69 *per cent* (2013-14) to 42 *per cent* (2016-17) against the total institutional deliveries in the State.

Chart-2.2



Source: Records of State Health Society

Deliveries in Private and Public Institutions are indicated in Table-2.3.

Table-2.3

Year	Total deliveries	Public (*per cent*)	Private (*per cent*)
2013-14	385435	265113 (69)	120322 (31)
2014-15	384287	240548 (63)	143739 (37)
2015-16	375957	193412 (51)	182545 (49)
2016-17	507896	211384 (42)	296512 (58)

Source: SHS data

The deliveries in public institutions declined from 69 to 42 per *cent* and whereas in private health institutions it increased from 31 to 58 *per cent.* It was observed that there was a shortage of health centres like CHCs, shortage of manpower in PHCs, non-functional PHCs which led the public to prefer private hospitals in anticipation of better infrastructure and health care which are discussed in detail in *Paras 2.1.6 and 2.1.8*.

Caesarean section deliveries

In order to manage the complications developing during delivery/child birth, deliveries are made through a surgical incision called Caesarean section (C-section) as an emergency procedure.

Telangana State, with 45 per cent, had a very high C-section rate in the country. Audit noticed from SHS data that C-section deliveries increased from 33 *per cent* (2013-14) to 45 *per cent* (2016-17). This indicated the ineffective Antenatal care provided in the State which resulted in an increase in C-section deliveries. ***It was further observed that C-section deliveries at private institutions were on higher side (67 per cent) as compared to those at public health facility centres (33 per cent).***

As per World Health Organisation (WHO), C-sections are effective in saving maternal and infant lives, but only when they are required for medically indicated reasons. The ideal rate for C-Sections should be between 10 and 15 per cent

Due to shortage of gynaecologists, anaesthetists, and general surgeon in Public Health Facilities, people were forced to go to private health facilities for C-section deliveries.

Government during Exit Conference (January 2018) admitted the fact of higher side of C-section deliveries in Private institutions. Government, in its written reply (January 2018) also stated that special trainings would be given to Medical Officers and Staff Nurses to conduct normal deliveries.

The State had failed to put in place a mechanism to discourage higher incidences of C-section deliveries in private institutions.

2.1.5.3 Postnatal care

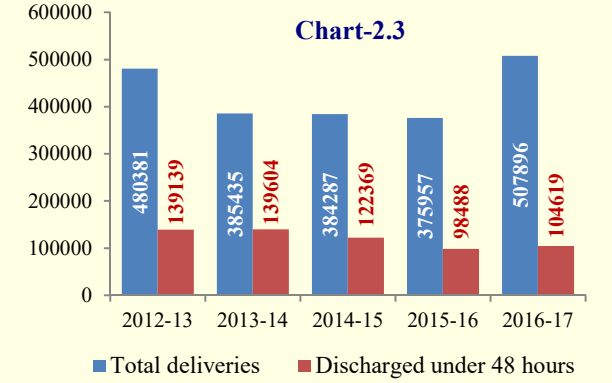
Discharging of mothers within 48 hours of delivery

As per RMNCH+A[15] guidelines, obstetric complications and maternal deaths occur during delivery and intra-partum period[16], a critical time for recognising and responding to obstetric complications and seeking emergency care to prevent maternal deaths.

Audit noticed that in 21 to 36 per cent cases of reported Institutional deliveries during 2012-17, mothers were discharged within 48 hours of delivery.

In the sampled districts, it was seen that the percentage of discharge of delivered mothers within 48 hours of delivery ranged from 1 to as high as 70 *per cent* in Medak, from 10 to 18 *per cent* in Nalgonda and up to 48 *per cent* in Warangal, during 2012-17.

This maximised the risk of maternal and infant deaths due to complications arising during *intra-partum* period.



Source: Records of State Health Society

In their reply (January 2018), Government stated that mothers who delivered without C-Section would prefer to go home within 48 hours as there was no support system for them at home to take care of their other children. It was, however, stated that the Audit observation would be addressed.

Post-partum check-up

National Rural Health Mission guidelines state that the first 48 hours of the post-partum (PP)[17] period followed by first one week are the most crucial period for the health and survival, of both the mother and her newborn. Further, most of the fatal and near-fatal maternal and neo-natal complications occur during the post-partum period. Ensuring post natal care during this period is hence, important for identification and management of emergencies.

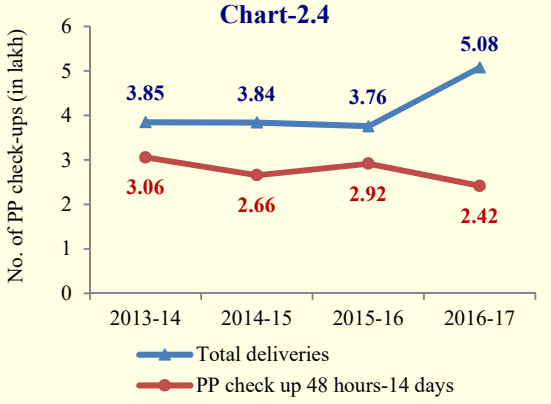
[15] Reproductive, Maternal, Newborn, Child and Adolescent Health
[16] the first 48 hours after childbirth
[17] A Postpartum(or postnatal) period begins immediately after the birth of a child and extends for about six weeks, as the mother's body, including hormone levels and uterus size, returns to a non-pregnant state

Audit noticed that during 2013-17, 21 to 52 per cent of delivered mothers had not received the PP check-up between 7 and 14 days of the delivery.

The above shortage in the stipulated PP check-ups put the mothers at the risk of fatal complications.

Government in their reply (January 2018) stated that steps were being taken to ensure 100 *per cent* reporting for PP check-ups.

Chart-2.4



Source: Records of State Health Society

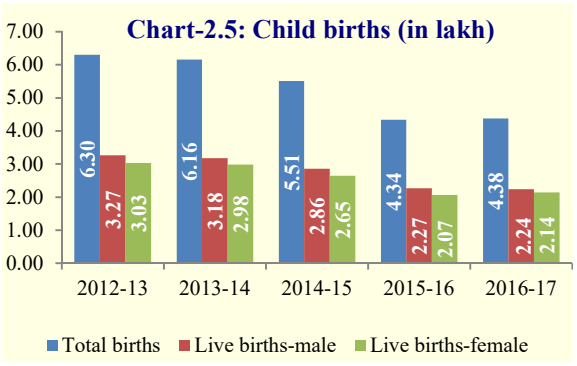
During Exit Conference, it was further stated that Telangana stood 2nd in the country in respect of newborn care and was the best as far as IMR and MMR was concerned.

Live births & weight of newborn

Gender inequalities & child sex ratio

Sex selective abortions result in declining sex ratio at birth. Preventing illegal sex determination and sex selective abortions require implementation of the provisions of Pre-Conception & Pre-Natal Diagnostic Technique Act (PC&PNDT) and Medical Termination of Pregnancy (MTP) Act so as to safeguard the rights of women to access safe and comprehensive abortion care services.

Chart-2.5: Child births (in lakh)



Source: Records of State Health Society

During 2012-17, reported total live births were 26.70 lakh. Of these, rate of male child birth continued to be at 52 *per cent* while the rate of female child birth stood at 48 *per cent*. The rate of female-male sex ratio at birth declined from 925 females (2012-13) to 915 females (2015-16) against 1,000 male live births. However, the ratio in 2016-17 increased to 959:1000.

The SHS attributed (October 2017) the decline in birth of female child during 2012-13 to 2016-17 to (a) the male preferences in the families; (b) the religious beliefs and faiths; (c) increase in illiteracy even though huge government's efforts were on to improve the literacy rate in the State, and (d) non-awareness about the importance of gender equality, etc. It was further stated that measures were being taken to identify unregistered machines/clinics/hospitals outside the list of registered centres through regular inspections by the district health authorities. Detailed list of registered centres under PC&PNDT Act was, however, not yet published.

Government replied (January 2018) that advertisements were floated in radio and electronic media, kalajatara, role plays, etc. regarding the consequences of illegal activity relating to disclosure of sex of the foetus.

However, the comparatively lower rate of female births reported is a matter of serious concern, indicative of ineffective enforcement of MTP and PC&PNDT Acts in the State.

Low birth weight children

Low Birth Weight (LBW) is closely associated with foetal and neonatal mortality and morbidity, inhibited growth and cognitive development, and chronic diseases later in life. In order to strengthen the care of LBW newborns, Special Newborn Care Units (SNCU) were to be established[18] at District Hospitals and tertiary care hospitals.

Audit observed that 7 to 18 *per cent* of live births during the period 2012-17 were not weighed within 24 hours of birth. Audit further observed that during the period, seven *per cent* of the newborns weighed were identified as LBW, i.e., having less than 2.5 kilograms at birth. Further, in the test-checked AHs/CHCs, four out of nine hospitals lacked the facility for identification and management of such LBW infants.

Thus, non-identification of LBW children among the live births is fraught with the risk of impaired growth, higher mortality and risk of chronic adult diseases.

Government while accepting the audit observations stated (January 2018) that reorientation training would be provided to staff working at delivery points.

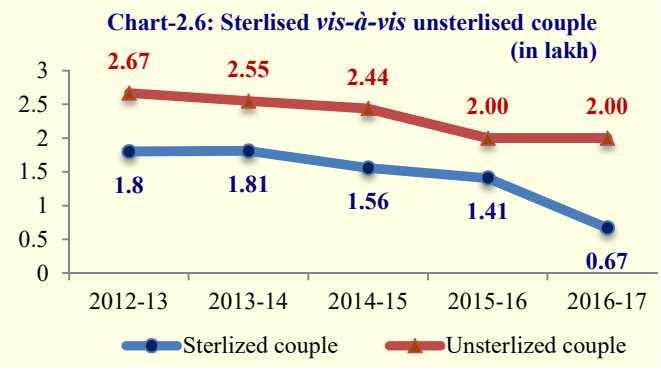
2.1.5.4 Family planning

As per RMNCH+A guidelines, family planning services would be utilised as a key strategy to reduce maternal and child morbidities and mortalities in addition to stabilising population. A target-free approach based on unmet needs for contraception; equal emphasis on spacing and limiting methods; and promoting 'children by choice' in the context of reproductive health are the key approaches to be adopted for promotion of family planning and improving reproductive health.

Limiting methods

The limiting methods to be adopted by females include Laparoscopy (Tubectomy), Minilap procedures etc. while those by males include Conventional/Non-Scalpel Vasectomy.

Audit noticed that out of 11.66 lakh estimated unsterilised eligible couples, 7.25 lakh (62 *per cent*) had undergone sterilisation procedure during the period 2012-17. The total sterilisations on the whole during the period showed a decreasing trend which ranged from 67 *per cent* (2012-13) to 33 *per cent* (2016-17).



Source: Records of State Health Society

[18] As per WHO and NHM guidelines

The female sterilisations constituted the majority, i.e., 95 *per cent* of the total procedures in 2014-17, while the number of male sterilisations constituted only 5 *per cent*. State Health Society cited (December 2017) scarcity of trained Non-Scalpel Vasectomy (NSV) Surgeons as the reason for the above.

Government in their reply (January 2018) stated that IEC[19] and BCC[20] activities were being conducted on World Population Day and Vasectomy Fortnight to promote the family planning sterilisations to achieve the stipulated targets.

Spacing methods

Oral pills, condoms and Intra Uterine Device (IUD) insertions are the three prevailing spacing methods of family planning to regulate fertility and promote couple protection rate.

Audit noticed a declining trend in usage of IUD insertions. The shortfall ranged from 41 to 60 *per cent* of targeted users of family planning methods. Similarly, the shortfall in the usage of oral pills increased from 59 to 75 *per cent* against the targeted users and usage of condoms from 60 to 78 *per cent*.

Thus, the implementation of family planning programme in the State was inadequate.

Government accepted the audit observation and stated (January 2018) that intensive campaigns and IEC activities would be taken up to address the issue in low performing areas.

2.1.5.5 Immunization

Universal Immunization Programme (UIP), 1985 of GoI aims to reduce mortality and morbidity due to Vaccine Preventable Diseases (VPDs), ***particularly for children in preventable diseases****.*

Immunization of children in 0 to 1 year age group

Bacillus Calmette Guerin (BCG), measles, Diphtheria Pertusis Tetanus (DPT) and Oral Polio Vaccine (OPV) for protection against childhood diseases like tuberculosis, measles, diphtheria, pertusis, tetanus and polio respectively, are given to children up to one year of age.

The target of full immunization of children of 0 to 1 year age group has been achieved during 2012-14 exhibiting full compliance to Government stipulations.

Audit observed that phase wise coverage (in four phases) of Mission Indradhanush[21] to administer full immunization to the left out children was implemented during April 2015 to April 2017 covering 100 *per cent* of the children.

[19] Information Education and Communication
[20] Behaviour Change Communication
[21] Mission Indradhanush is a GoI initiative launched on 25 December 2014 to ensure full immunisation of all children in India

2.1.6 Health Care Infrastructure

2.1.6.1 Physical Infrastructure

NRHM envisages establishing functional health facilities through revitalisation of existing infrastructure and new construction or renovation wherever required. The Mission developed comprehensive Indian Public Health Standards (IPHS) in the year 2012 defining infrastructural standards for different levels of health facilities.

Availability of health centres against requirement

As per the Indian Public Health Standards (IPHS) norms prescribed by GoI, the requirement of SC, PHC and CHC are based on population as given in Table 2.4.

The norm prescribed *vis-à-vis* availability of health facilities is indicated in the Table-2.5.

Table-2.4

Type of health centre	Population norms	
	Plain area	Hilly/tribal/ difficult area
Sub-centre	5,000	3,000
Primary Health Centre	30,000	20,000
Community Health Centre	1,20,000	80,000

Source: Records of SHS and Socio-economic outlook 2017 of Telangana

Table-2.5

Type of health centre	Required	Available
Sub-centre	4320	4745
Primary Health Centre	720	836
Community Health Centre	180	126

Note: Calculated on the basis of rural population of Telangana at 2.16 crore; Source: SHS data

It is seen from the above that shortage of CHCs was 30 *per cent.*

Thus, provision of referral health care for cases from PHCs level and specialist care to those approaching the centre directly was not met for rural public to that extent.

Government during Exit Conference (January 2018) stated that the State had sufficient health care facilities. However, the CHCs which are the First Referral Units were not sufficient in number.

Non-functional newly constructed PHCs

In April 2012, Government sanctioned establishment of 55[22] new PHCs in the State. In the sampled districts, 19 PHCs (Medak: 9[23]; Nalgonda: 2[24] and Warangal: 8[25]) were constructed at a cost of ₹11.19 crore[26] during 2014-17. However, Audit observed that these PHCs were not functioning as of June 2017 due to non-deployment of manpower and equipment. The PHC-wise details are given in *Appendix-2.2*.

The Department accepted (October 2017) that the health centres were yet to be made operational even though they were completed 9 to 33 months ago due to non-filling up of posts. It was further stated that orders to fill the posts were awaited from the Government. This deprived the public of the intended benefits of health facilities.

[22] construction of 3 PHCs not commenced due to site problems (status of PHCs yet to be furnished by SHS)
[23] Medak: PHCs at Chintamadaka; Markuku; Ramakkapeta; Sirigipally; Rajgopalapet; Akkannapet; Bollaram; Turkapally and Jagdevpur
[24] Nalgonda: PHCs at Thangadpally and Boddupally
[25] Warangal: PHCs at Malyala; Thatikonda; Pidipalli; Kundaparthi; Siddapur; Ippaguda; Obula Kesavapur and Kuravi
[26] Medak: ₹5.65 crore; Nalgonda: ₹0.90 crore and Warangal: ₹4.64 crore

Location of health facilities

As per Indian Public Health Standards (IPHS) norms, SCs are to be located within the village for providing easy access to the people and visit by Auxiliary Nurse and Midwife (ANM). Further, it should be so located that a person is required to travel not more than 3 kilometres to reach there. Sub-Centres should also have proper facility of road communication/public transport/telephone. Similarly, PHCs and CHCs should be centrally located in an easily accessible area.

The position of SCs in the sampled districts is given as below.

Table-2.6

Sl. No.	Factors found deficient	SCs	
		Number	%
1.	Distance of more than three kilometres from the remotest village	53	65
2.	Not accessible by public transport	13	16
3.	Centre located more than 30 min walking distance from the remotest village	43	53

Source: Records of test-checked SCs

The above position indicated that Mission could not ensure location of health centres to ensure easy access for people.

Government in their reply stated (January 2018) that the mapping of districts and Sub-centres (SCs) was still under process due to reorganisation of districts in the State. It was further stated that after completion of the reorganisation, the actual distance and location of SCs would be ascertained.

Infrastructure in health facilities

For effective delivery of RCH services, IPHS laid down norms for infrastructure in SCs, PHCs and CHCs, apart from basic amenities such as provision for own building, electricity, water supply, vehicles for referral services, etc.

In the test-checked health facility centres, 43 *per cent* of SCs had no own buildings, 44 *per cent* had no water supply and 27 *per cent* had no power supply. Similarly, in the selected PHCs there was no functional labour room (19 *per cent*) and newborn care corners (37 *per cent*) respectively. The test-checked CHCs/AHs had no newborn care facilities (33 *per cent*), separate wards for male and female (11 *per cent*) and operation theatre (11 *per cent*) respectively. The status of availability of infrastructure in the test-checked health facilities is given in *Appendix-2.3*.

Thus, quality of health care was not given adequate attention thereby forcing the patients to go to private institutions for treatment. Government did not offer any specific reply.

2.1.7 Medicines and equipment

Financial support is provided to States under NRHM to strengthen the health system including supply of drugs.

2.1.7.1 Availability of essential medicines

The IPHS norms and the State Government orders prescribed certain types of drugs/ medicines for each type of health facility depending upon its requirement.

Audit observed shortage in availability of essential medicines at test-checked CHCs, AHs and DHs which ranged from 10 to 75 *per cent* during 2014-17 as shown in *Appendix-2.4*. Government in their reply (January 2018) accepted the audit observations and promised to suitably address the issue in the larger public interest.

Due to non-availability of drugs, the patients were either deprived of the medications or had to purchase the medicines from open market thereby not fulfilling the objective of NRHM.

2.1.7.2 Provision of equipment for RCH services

As per Indian Public Health Standards (IPHS), for PHC, the necessary equipment viz. normal delivery kit, equipment for assisted deliveries, standard surgical set, etc., to deliver the assured services, were envisaged. The CHC should be provided with standard surgical set of various types, normal delivery kit, imaging equipment, etc. The equipment norms were different for each grade of DH. In all DHs, certain essential equipment viz. imaging equipment, SNCU equipment, blood storage unit, etc. were to be made available.

Scrutiny of relevant records of test-checked health facilities revealed severe shortages of essential equipment as stipulated in IPHS norms (*Appendix-2.5*).

As a result, patients were denied the provision of required services like diagnostics, X-ray services, ECG tests, etc., free of cost. Further, the patients were forced to get the above services from private agencies out of their pocket.

Government replied (January 2018) that as part of ongoing standardisation of labour rooms, all necessary equipment for labour rooms and hospitals would be supplied.

2.1.8 Human Resource in health facilities

The Mission aimed at ensuring uninterrupted and quality health care by increasing the availability of doctors, specialists, paramedical staff, ANMs[27] and ASHAs. State Government was to fill up the existing vacancies by new contractual appointments for which GoI provides funds. Audit analysis of the staffing requirements as per IPHS/ sanctioned strength *vis-à-vis* those positions across various facilities is presented below:

2.1.8.1 Manpower in SCs and PHCs

As per Indian Public Health Standards (IPHS) norms, each Sub Centre is required to be manned by at least one auxiliary nurse midwife (ANM)/female health worker and one male health worker.

[27] Auxiliary Nurse Midwife

Audit noticed 100 *per cent* shortfall in availability of Male Health Workers, i.e., 4,745 in SCs in the State. The post of Male Health Assistant was neither sanctioned nor posted in any SC in the State.

As per minimum requirement, a PHC is to be manned by a Medical Officer supported by 12 paramedical and other staff. There was, however, shortfall in availability of manpower in PHCs at 4,775, i.e., at 43 *per cent*[28]. Further, posts of Data entry operator were not filled in any PHC in the State.

Further, out of 27 test-checked PHCs, seven PHCs[29] were functioning without a lab technician, eight PHCs[30] without Pharmacist and one PHC[31] without Staff Nurse (June 2017).

Due to the severe shortages in manpower especially in critical areas as discussed above, proper functioning of above PHCs was doubtful which affected delivery of health care services.

Government during Exit Conference (January 2018) stated that the recruitment of doctors and paramedical staff was under process.

2.1.8.2 Specialists in CHCs/AHs/DHs

As per IPHS norms, five specialists in specialities of Surgery, Medicine, Obstetrics & Gynaecology (O&G), Paediatrics and Anaesthetist for RCH programmes are to be positioned in CHCs. Specialist services in above fields were to be made available.

Shortage of Specialists[32] for RCH programme in the test-checked hospitals ranged from 23 to as high as 73 *per cent* in CHCs/AHs/DHs.

Further, 71 (48 *per cent*) Anaesthetists were only available in the State as against requirement of 169 Anaesthetists as per IPHS norms. Similarly, other specialist services were also not available in the State as required. The shortage of specialist services in General Medicine was at 117 (69 *per cent*); General Surgeon at 123 (73 *per cent*); O&G at 41 (23 *per cent*) and Paediatrics at 88 (50 *per cent*). The details of shortages are given in *Appendix*-2.6.

Shortfall in availability of specialists in Government hospitals resulted in denial of speciality services as envisaged under RCH programme.

Government replied (January 2018) that the recruitment of specialist doctors was under process.

2.1.8.3 Paramedical Staff in CHCs/AHs/DHs

Shortage of paramedical staff in CHCs, AHs and DHs ranged from 17 to as high as 100 *per cent* against the IPHS norms. Further, shortage of Staff Nurses at 17 *per cent*, Pharmacists at 18 *per cent*, Laboratory Technicians at 79 *per cent* and Radiographers at

[28] Accountant:836; Staff Nurse: 33; Pharmacist: 251; Lab Technician: 311; ANM: 836; Group D workers:1672; Watchman: 836
[29] Medak: 1; Nalgonda: 5; Warangal: 1
[30] Medak: 2; Nalgonda: 4; Warangal: 2
[31] Warangal: 1
[32] in disciplines of General Medicine, General Surgeon, Obstetrician & Gynaecologist and Anaesthetist

60 *per cent* against the IPHS norms was also noticed in the above hospitals (*Appendix-2.6 refers*). In the sampled districts, the shortages of paramedical staff *vis-à-vis* the sanctioned strength in CHCs, AHs and DHs were - Staff Nurses: 6 *per cent*; Pharmacists: 32 *per cent;* Laboratory Technicians: 30 *per cent* and Radiographers: 25 *per cent*. Government replied (January 2018) that the recruitment of the paramedical staff was under process.

Thus, patients were deprived of support for emergency services in Public Health Institutions.

2.1.9 Quality of health care

2.1.9.1 Allocation of funds for Quality Assurance and its utilisation

States are responsible for including the requirement of funds for Quality Assurance (QA) Programme in the annual State Programme Implementation Plan (SPIP).

Audit noticed that the amount of ₹3.14 crore, released during 2014-17, was almost not utilised by the State (spent only ₹0.02 crore, i.e., less than one *per cent*) on the quality assurance and the amount of ₹3.12 crore was lying with SHS.

The low utilisation of funds was attributed (May 2017) by SHS to non-recruitment of required manpower. This coupled with non-conduct of envisaged training for health personnel also contributed to low spending.

Government stated (January 2018) that recruitment of necessary human resource in the State was under process.

Quality Assurance Committee/State Quality Assurance Unit/District Quality Assurance Committee and District Quality Team/Internal Quality Assurance Teams

As per Operational Guidelines for Quality Assurance in Public Health Facility 2013, State Level Quality Assurance Committee was to be constituted to oversee the quality assurance activities across the State for providing overall guidance, mentoring and monitoring of quality assurance efforts in the State.

Although State Quality Assurance Committee (SQAC) was constituted in March 2015, no meetings were conducted as of July 2017. Thus, reviewing and discussion of Key Performance Indicators (KPIs) of RCH was totally absent in the State during 2014-17.

Similarly, State Quality Assurance Unit (SQAU) was to be constituted to provide support to SQAC for implementation of quality assurance activities in the State. However, it was observed that SQAU was not constituted in the State as of July 2017.

Test-check also revealed that District Quality Assurance Committees were not constituted till November 2017 in Medak and Nalgonda districts. It was also seen that IQATs were not constituted in 19 out of 27 test-checked PHCs (70 *per cent*) and 7 (out of 9) test-checked CHCs/AHs.

Thus, quality of services delivered at the health facilities in the State during the period 2014-17 remained unassessed.

Government stated (January 2018) that SQAC meetings would be held in February 2018 to review of KPIs, RMNCH+A services, gaps observed in quality interventions, etc.

2.1.10 Management, Monitoring and Evaluation

2.1.10.1 Review of maternal and infant death cases

Maternal Death Review

Maternal Death Review (MDR) is an important strategy to improve the quality of obstetric care and reduce maternal mortality[33]. Every health facility is required to conduct death audit for all deaths happening in the facility. The facility should also report the data relating to maternal and infant deaths to DQAU on monthly basis. DQAU in turn are to report the maternal deaths in the district to SQAC.

Against 1,375 maternal deaths that occurred in the State (during 2013-17), 1,129 deaths were stated to have been reviewed. However, the review of 246 deaths was not carried out by the health facilities.

In the three sampled districts, 310[34] maternal deaths were reported during 2013-17 and in 151 of the cases the envisaged review was not carried out by the facilities. Further, the districts did not report any death case to SQAU. Specific reasons for non-conduct of MDR in the State was not furnished.

Due to non-conduct of MDR, the delays and gaps that contribute to maternal deaths at various levels and the information used to adopt measures to fill the gaps in service could not be identified. ***Thus, quality of obstetric care was not ensured.***

Government in their reply stated (January 2018) that since SQAC has now been formed in Telangana, MDR would henceforth be regularly conducted.

Infant Death Review

Reducing infant mortality is one of the key goals under NRHM. Infant Death Review is an important strategy to understand the geographical variation in causes leading to newborn and child deaths, and thereby initiating State-specific child health interventions. Analysis of child deaths provides information about the medical causes of death, helps to identify the gaps in health service delivery and social factors that contribute to child deaths.

Information on infant deaths in the State and the status of review was not made available by SHS. In the sampled districts, 7,538[35] infant death cases were reported during the period 2013-17. However, none of the deaths was reviewed. Thus, initiating remedial measures for their elimination by NRHM was not possible.

Government replied (January 2018) that training for Trainer of Trainers (ToTs) for conducting Infant Death Reviews in most of the districts had been completed. It was further stated that training of to various cadres was in progress.

[33] as per Maternal Death Review (MDR) guide book
[34] Medak:128; Nalgonda: 94 and Warangal: 88
[35] Medak; 3,051; Nalgonda: 2,838; Warangal: 1,649

Monitoring of Key Performance Indicators (KPIs)

Hospital Managers are required to collate critical data from the departments and calculate KPIs to monitor them on monthly basis and report these indicators to DQAC and SQAC.

In selected districts, the DMHOs replied (July 2017) that the KPIs were not being monitored.

Since KPIs were not captured at the facility level, the monitoring of indicators pertaining to RCH *viz*., mothers receiving antenatal care, institutional deliveries, safe delivery and mothers receiving postnatal care and immunisation coverage could not be monitored by DQAC and SQAC for evaluation and remedial measures.

Government replied (January 2018) that the process of collecting KPIs in 7 CHCs (out of 126) and in 86 PHCs (out of 836) was started from August 2017.

2.1.11 Impact of NRHM on MMR, IMR and TFR

2.1.11.1 Millennium Development Goals

Ministry of Health and Family Welfare (MoHFW), GoI in the 'Framework for Implementation (2005-2012)' and subsequent revised 'Framework for Implementation (2012-17)' had laid down certain expected outcomes (National Targets) to be achieved in line with the Millennium Development Goals outlined by the United Nations in the year 2000.

Table-2.7

Sl. No.	Framework of Implementation (2005-2012)	Framework of Implementation (2012-17)	Millennium Development Goals (2015)
1	Infant Mortality Rate (IMR) reduced to 30/1,000 per 1,000 live births by 2012.	Reduce IMR to 25/1,000 live births	Reduce IMR to 27 per 1,000 live births
2	Maternal Mortality Ratio (MMR) reduced to 100 per 1,00,000 live births by 2012.	Reduce MMR to 100/1,00,000 live births	Reduce MMR to 109 per 1,00,000 live births
3	Total Fertility Rate (TFR) to 2.1 by 2012.	Reduce TFR to 2.1	--

Source: GoI Guidelines

IMR, MMR and TFR

The year-wise targets and achievements during 2012-17 were as given in Table-2.8 below.

Table-2.8

Year	IMR		MMR		TFR	
	Target	Achievement	Target	Achievement	Target	Achievement
2015-16	25	28	100	92	2.1	1.8
2016-17	25	28	100	80	1.8	1.8

Note: Data for the years 2012-13 to 2014-15 was not made available to Audit
Source: Records of State Health Society

The rate of achievement on MMR and TFR was satisfactory at State level. However, MMR in tribal districts like Adilabad, Khammam and Mahabubnagar was very high at 152, 99 and 98 respectively as against 92 in the State. Increased trend of MMR in the above districts was an area of concern. The increase of MMR in tribal districts was mainly due to

non-availability of outreach RCH services on account of meagre spending (22 to 71 *per cent* of the fund allocations during 2014-17) on the services.

Audit further observed that IMR was above the rate of ceiling of 25 during 2015-17. As per SRS[36] 2016, IMR was 35 in rural areas of Telangana State. However, SHS did not furnish the details of infant deaths that occurred in the State during 2012-17. Hence, IMR figures claimed as being achieved could not be verified in Audit.

Government during Exit Conference (January 2018) stated that the levels of IMR in the State were reduced from 35 (in 2014) to 28 (in 2017). However, the NRHM target (for IMR) of 25/1,000 live births by the year 2017 had not been achieved.

2.1.12 Data collection, Management and Reporting

The interventions to ensure fundamental corrections in the existing health care delivery system have increased the demand for data on population and health for use in both micro-level planning and programme implementation. A continuous flow of good quality information on inputs, outputs and outcome indicators facilitate monitoring of the objectives of NRHM.

In the test-checked districts, it was noticed that computers were either not available or not functional in 12 out of 27 PHCs. Further, DEOs were not available in PHCs. This was one of the contributing factors for incomplete reporting by the health facility centres to HMIS portal meant for quality information on inputs, outputs and outcome indicators. Thus, deficient IT infrastructure and networking compounded the problem preventing timely updation and smooth flow of data.

In their reply (January 2018) Government stated that DEOs would be positioned in health facilities shortly. It was further stated that all health facilities would be provided with computers along with internet connection.

2.1.13 Conclusion

The State has achieved the goals of Maternal Mortality Ratio (MMR) and Total Fertility Rate (TFR). The State has also achieved the target of immunisation of children of 0 to 1 year age group. However, the implementation of Reproductive and Child Health (RCH) overall under NRHM in the State was far from satisfactory. The MMR in certain tribal districts like Adilabad and Khammam was much below the targets. IPHS norms under all components of RCH were not met. This was mainly due to the State Government not being able to utilise the Central grant fully as approved under RCH programme.

Annual facility level surveys intended for identification of gaps/deficiencies in the existing health care facilities, areas of interventions, etc. for ensuring quality health care, were not conducted. State Program Implementation Plans (SPIPs) were prepared without the inputs from Block and District Health authorities as a result of which funds available could not be fully utilised. Adequate attention on availability of required physical as well as human infrastructure in the health facilities was not accorded.

[36] Sample Registration System

Female-male sex ratio at birth declined during 2012-16 due to ineffective implementation of PC&PNDT and Medical Termination of Pregnancy Acts. There was increasing trend in ANC registrations. However, the institutional deliveries in public health facilities declined. Ineffective implementation of Maternal and Child Health components contributed to heightened risk of maternal and infant deaths. State Health Society did not maintain the accurate data on health indicators. Key Performance indicators were not captured at facility level and were not monitored for evaluation and remedial measures. This was mainly due to non-constitution of State Quality Assurance Committee which was formed only in March 2015. However, no requisite meetings were conducted as of January 2018. The computers and networking was deficient and adversely affected timely updation of data.

2.1.14 Recommendations

(i) The Department should conduct annual facility surveys for identifying and bridging the gaps/deficiencies in provision of health care facilities;

(ii) Government should put in place an effective mechanism to facilitate effective monitoring of the GoI allocations/releases as well as the spendings to ensure full utilisation of grant as approved by GoI for implementation of RCH programmes;

(iii) Government should give priority to augmenting the physical as well as human infrastructure across all levels of the healthcare system for effective implementation of RCH programme. This would ensure quality health care at public health institutions;

(iv) Government need to create awareness through Electronic and Print Media on advantages of natural deliveries and disadvantages of C-Sections;

(v) Vacant posts of Obstetricians and Gynaecologists (O&G) in CHCs/AHs/DHs should be filled up so as to reduce C-Section deliveries in Private Hospitals; and

(vi) State Quality Assurance Committee/District Quality Assurance Committees/Internal Quality Assurance Teams should strengthen their activity on reviewing and discussion of key performance indicators of RCH programme.

During Exit Conference, Government assured of remedial action on the points raised by Audit. The recommendations made by Audit were also discussed and accepted by Government.

Appendix-2.1
(Reference to paragraph 2.1.2.3 page 20)

List of sampled hospitals and health centres

Sampled District	District hospital sampled	CHC/SDH sampled	PHCs sampled	Sub-Centres sampled
Medak district	**District Hospital, Sangareddy**	**CHC, Narsapur**	PHC, Chintalacheru	SC, Chintalacheru
				SC, Royyapally
				SC, Sadullanagar
			PHC, Hathnoora	SC, Konyal
				SC, Siripuram
				SC, Hathnoora A
		AH, Patancheru	PHC, Gummadidala	SC, Gummadidala B
				SC, Annaram
				SC, Gummadidala A
			PHC, Khanukunta	SC, Khanukunta
				SC, Kothapalli
				SC, Nallavalli
		AH, Siddipet	PHC, Kondapak	SC, Srisinagandla
				SC, Kondapak B
				SC, Kondapak A
			PHC, Kuknoorpally	SC, Thipparam
				SC, Kodakandla
				SC, Thimmareddypally
			PHC, Mirdoddi	SC, Alwal
				SC, Andey
				SC, Mallapally
			PHC, Reddypally	SC, Narsapur-C
				SC, Narsapur-B
				SC, Pedda Chinthakunta
			PHC, Kalher	SC, Krishnapur
				SC, Bachepalle
				SC, Nagdhar
Nalgonda district	**District Hospital, Nalgonda**	**CHC, Nadigudem**	PHC, Munagala	SC, Mukundapuram
				SC, Munagala
				SC, Akupamula
			PHC, Repala	SC, Madhavaram
				SC, Repale
				SC, Kalkova
		AH, Ramannapeta	PHC,Valigonda	SC, Puligilla
				SC, Redlarapaka
				SC, Valigonda
			PHC,Vemulakonda	SC, Vemulakonda
				SC, Velvarthy
				SC, Aroor
		CHC, Thungathurthy	PHC, Arvapally	SC, Arvapally
				SC, Thimmapuram
				SC, Kasarlapahad

Sampled District	District hospital sampled	CHC/SDH sampled	PHCs sampled	Sub-Centres sampled
			PHC, Nagaram	SC, D Kothapally
				SC, Nagaram
				SC, Vardhamankota
			PHC, Bibinagar	SC, Ragavapuram
				SC, Chinaravulapally
				SC, Bibinagar
			PHC, Nampally	SC, Pasnoor
				SC, Mustipally
				SC, Narsimulaguda
			PHC, Kapugal	SC, Kommarabanda
				SC, Gudibanda
				SC, Togalrai
Warangal district	**District Hospital, Janagaon**	**AH, Mahabubabad**	PHC, Alankanipeta	SC, Topanapalli
				SC, Pedda Korpolu
				SC, Bolikonda
			PHC, Nekkonda	SC, Applaraopet
				SC, Chandragonda
				SC, Nekkonda
		CHC, Ghanpur Stn	PHC, Dharmasagar	SC, Dharmasagar-I
				SC, Devnur
				SC, Elkurthy
			PHC, Velair	SC, Mallikudurla
				SC, Thatikayala
				SC, Narayanagiri
		CHC, Bachannapet	PHC, Ladnoor	SC, Bairanpalli
				SC, Kondapur
				SC, Ladnoor
			PHC, Maddur	SC, Maddur
				SC, Arjunapatla
				SC, Doolimitta
			PHC, Hasanparthy	SC, Annasagar
				SC, Yallapur
				SC, Jayagiri
			PHC, Bhupalpalli	SC, Bhupalpally-I
				SC, Moranchapally
				SC, Kamalapur
			PHC, Kesasamudram	SC, Kesasamudram
				SC, Kesamudram Stn
				SC, Penugonda

Appendix-2.2
(Reference to paragraph 2.1.6.1 page 30)

List of non-functional PHCs in sampled districts

Sl. No	Name of the Health centre	Date of completion	Delayed (as of June, 2017)
1.	PHC, Chintamadaka(V), Siddipet(M)	2.2.2016	17 (Months)
2.	PHC, Markuku (V), Mulugu.	4.8.2016	11 (Months)
3.	PHC, Ramakkapet (V), Dubbak (M)	16.4.2015	26.5(Months)
4.	PHC, Sirigipally(V), Gajwel	25.4.2015	26 (Months)
5.	PHC, Rajgopalpet (V), Nanganoor (M)	1.12.2014	30 (Months)
6.	PHC, Akkannapet (V), Husnabad.	13.7.2015	23.5(Months)
7.	PHC, Bollaram(V), Jinnaram	22.10.2014	32(Months)
8.	PHC, Thurkapally(V), Narayanakhed(M)	13.8.2015	22.5(Months)
9.	Jagdevpur(V&M)	1.10.2016	9(Months)
10.	PHC, Boddupally(V), Devarkonda(M)	13.10.2015	20.5(Months)
11.	PHC, Velvarthy(V), Valigonda (M)	27.7.2016	11(Months)
12.	PHC, Malyala, Mahabubabad (M)	18.6.2015	24.5(Months)
13	PHC, Thatikonda(V), Ghanpur (M)	3.9.2014	33(Months)
14.	PHC, Paidipally(V), Hanamkonda (M)	27.11.2014	31(Months)
15.	PHC, Kondaparthy, Hanamkonda (M)	27.11.2014	31(Months)
16.	PHC, Siddapur, Hasanpathy(M)	27.11.2014	31(Months)
17.	PHC, Ippaguda, Ghanpur (M)	29.12.2014	30(Months)
18.	PHC, Obulakeshapur, Jangaon(M)	16.10.2014	32.5(Months)
19.	PHC, Kuravi (V&M)	18.6.2015	24.5 (Months)

Appendix-2.3
(Reference to paragraph 2.1.6.1 page 31)

Availability of infrastructure in the test-checked Health facilities

Sl No.	Infrastructural facility not available	Number of health facilities	Percentage of total health facilities surveyed
Sub Centre (SC)		81 (Surveyed)	100
1.	Rented building	35	43
2.	No compound wall	51	63
3.	Coming off and no plaster on walls	26	32
4.	Not availability of toilets	51	63
5.	Areas of garbage collection, cattle shed, water logging, etc. nearby	17	21
6.	Non-availability of Suggestion/complaint box?	51	63
7.	No water supply	36	44
8.	No power supply	22	27
9.	No telephone	66	81
10.	No ANM quarter	74	91
PHC (Primary Health Centre)		27 (Surveyed)	
1.	Compound wall (not provided)	1	4
2.	Compound wall (partial)	4	15
3.	Condition of floor (Coming off in some places)	3	11
4.	Standby generator/Standby generator available but not functional	15	56
5.	Labour room/labour room available but not functional	5	19
6.	Newborn care corner	10	37
7.	Separate male and female wards	17	63
8.	Transport facility for referrals	7	26
AH/CHC		9 (Surveyed)	
1.	Condition of plaster on walls (Plaster coming off/ no plaster)	4	44
2.	Proper flooring	2	22
3.	Operation theatre/available but not in use	1	11
4.	Separate male and female wards	1	11
5.	Newborn care facilities/available but not in use	3	33

Appendix-2.4
(Reference to paragraph 2.1.7.1 page 32)

Availability of essential medicines at test-checked health facilities

Name of the hospital	Required as per state essential medicines list	Available	Shortfall
DH, Sangareddy	529	280	221 (42%)
DH, Jangoan	529	130	399(75%)
AH, Patancheru	388	158	230 (59%)
AH, Siddipet	388	350	38(10%)
CHC, Narsapur	388	110	278 (72%)
AH, Ramannapet	388	118	270 (70%)
CHC, Tungathurthy	388	199	189 (49%)
CHC, Nadigudem	388	165	223 (57%)
CHC Bachannapet	388	124	264 (68%)
CHC, Station Ghanpur	388	124	264(68%)
AH, Mahabubabad	388	188	200(52%)

Appendix-2.5
(Reference to paragraph 2.1.7.2 page 32)

List of equipment/services not available in the Selected Health facilities

Sl. No.	Name of the Equipment	Number of Health facilities	Percentage
District Hospitals (3 Selected)			
1	2D-Echo	3	100
Area Hospitals/CHCs (9 selected)			
1	Operation theatre table	2	22
2	Ultrasound Scanning	4	44
3	Blood Storage	6	66
4	ECG	3	33
5	IUD Insertion Kit	2	22
6	X-Ray facility	1	11
Primary Health Centres (27 Selected)			
1	Examination table	2	7
2	Operation theatre Table	5	19
3	Sterilisation Instruments	6	22
4	IUD Insertion Kit	6	22
5	Normal Delivery Kit	1	4
6	Labour Room Not Available/not in use	3	11

Appendix-2.6
(Reference to paragraph 2.1.8.2 and 2.1.8.3 page 33 and 34)

Availability of Specialists/Para Medical Staff in CHCs/AHs/DHs

(i) Availability of Specialists in CHCs/AHs/DHs

Name of the post	Required as per IPHS norms	Available	Vacant (*per cent*)
Medicine	169	52	117 (69)
Surgery	169	46	123 (73)
Obstetric & Gynaecology	175	134	41 (23)
Paediatrics	175	87	88 (50)
Anaesthesia	169	71	98 (58)
	857	**390**	**467 (54)**

Note: District Hospitals: 6; Area Hospitals: 31; Community Health Centres: 126

(ii) Availability of Para Medical Staff in CHCs/AHs/DHs

Name of the post	Required as per IPHS norms at each health facility			Total Requirement as per available health facilities			Total required	Available	Shortage (%)
	CHC	AH	DH	126 CHCs	31 AHs	6 DHs			
Staff Nurse	10	36	93	1260	1116	558	2934	2430	**504 (17)**
Pharmacist	1	3	6	126	93	36	255	209	**46 (18)**
Lab Technician	2	5	9	252	155	54	461	99	**362 (79)**
Radiographer	1	2	3	126	62	18	206	82	**124 (60)**
Opthalmic assistant	1	1	1	126	31	6	163	2	**161 (99)**
Dental assistant	1	1	1	126	31	6	163	0	**163 (100)**
Cold chain & vaccine Logistic Assistant	1	1	0	126	31	0	157	0	**157 (100)**
OT Technician	1	6	6	126	186	36	348	0	**348 (100)**
Multi Rehabilitation/ Community based Rehabilitation worker	1	2	3	126	62	18	206	0	**206 (100)**
Counsellor	1	1	1	126	31	6	163	0	**163 (100)**
Dietician	0	0	1	0	0	6	6	0	**6 (100)**