CHAPTER II
HEALTH AND FAMILY WELFARE DEPARTMENT

National Health Mission – Reproductive and Child Health (RCH) and Immunisation

Executive summary

The Performance Audit was conducted to assess whether the interventions of the National Health Mission in the areas of maternal health, child health, family planning and immunisation during 2012-17 were effective in improving the health standards of women and children in the State. The Performance Audit attempted to assess whether the physical and human resources were adequate, the procurement of drugs and equipment were efficient and economical and whether the overall financial management was efficient and effective.

The Performance Audit revealed deficiencies in providing delivery services to women, setting up facilities for newborn at delivery points, shortfall in infrastructure, etc., as detailed below.

Government of Kerala did not release proportionate share of assistance of ₹323.22 crore during 2012-17.

(Paragraph 2.7)

Over 12 *per cent* of 24.95 lakh pregnant women who registered for Ante Natal Care did not receive Iron and Folic Acid tablets. There was also shortfall in the percentage of women who received Tetanus Toxoid shots.

(Paragraph 2.8.1)

Thirty seven *per cent* of 24.95 lakh pregnant women were not tested for HIV.

(Paragraph 2.8.2)

Delivery facility was available only in 15 out of test-checked 65 institutions in selected districts, *viz*. Wayanad, Malappuram, Thrissur and Alappuzha.

(Paragraph 2.8.4)

There were deficiencies in providing free diet and other facilities to pregnant women under Janani Shishu Suraksha Karyakram.

(Paragraph 2.8.8.1)

Facilities like Newborn Care Corner and Newborn Stabilisation Units were not set up at all delivery points.

(Paragraph 2.9.1)

The objectives of District Early Intervention Centres for early detection, free treatment and management of children with health conditions were not attained as almost 83 *per cent* of 9,588 children identified in Alappuzha, Malappuram, Wayanad and Thrissur districts during 2016-17 did not report for further treatment.

(Paragraph 2.9.3.1)

Progress of immunisation in Malappuram and Wayanad districts was poor.

(Paragraph 2.11.1)

There were deficiencies in infrastructure in healthcare institutions.

(Paragraph 2.12.2)

Contrary to GOI guidelines, High Priority Districts of Kasaragod, Malappuram and Palakkad were denied additional funds to the extent of ₹86.40 crore during 2013-17.

(Paragraph 2.13.1)

2.1 Introduction

Government of India launched (April 2005) the National Rural Health Mission (NRHM), renamed (2013) as National Health Mission (NHM) to provide equitable, affordable and quality healthcare services in rural areas through strengthening of health systems, institutions and capabilities. It was envisaged that the NHM would facilitate universal access to quality healthcare services through partnership between the Centre, State, Local Self-Governments and community in the management of primary health programmes and infrastructure. There were 18 General Hospitals, 99 hospitals at District/Taluk level[4], 22 Speciality hospitals, 14 District Tuberculosis Centres (DTBCs), 232 Community Health Centres (CHCs), 848 Primary Health Centres (PHCs), 5,408 Sub-Centres and 47 other health facilities functioning in Kerala as on 31 March 2017.

The Reproductive and Child Health (RCH) programme under NHM provided for healthcare to women and children with a view to reducing maternal and infant mortality and total fertility rates as well as social and geographical disparities in access to and utilisation of quality reproductive and child health services. The immunisation programme in India has undergone significant changes in recent years, which included a new policy environment through the NHM, new vaccines and new procedures/technologies for vaccine delivery.

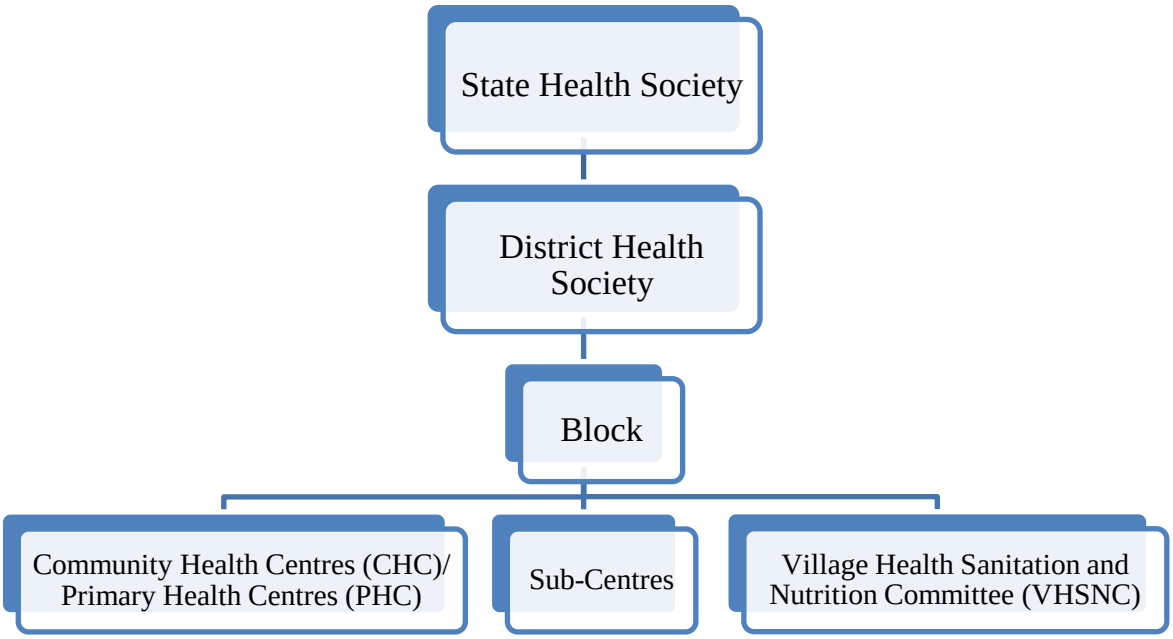
2.2 Organisational Setup

At State level, the Mission functioned under the overall guidance of the State Health Mission (SHM) headed by the Chief Minister. The Mission carried out its activities through the State Health Society headed by the Principal Secretary, Health and Family Welfare Department. At the District level, the District Health Mission was headed by the head of the Local Self-Government *viz*., President, Chairperson/Mayor as decided by the State Government depending upon whether the district was predominantly rural or urban. The District Collectors headed the respective District Health Societies in each district.

[4] 18 District Hospitals, 41 Taluk Headquarters Hospitals and 40 Taluk Hospitals.

A chart showing the Programme implementation structure of NHM in the State is shown below:

Chart 2.1: Programme implementation structure of NHM



2.3 Audit scope and methodology

The Performance audit covering the period 2012-17 was conducted between May 2017 and September 2017 by test-check of relevant records in the Government Secretariat, State Health Society, Directorate of Health Services (DHS), four District Health and Welfare Societies in Alappuzha, Thrissur, Malappuram and Wayanad districts and 65 health institutions[5] in the selected districts. Besides, Audit also covered 32 Sub-Centres. The districts were selected using Simple Random Sampling without Replacement (SRSWOR) technique.

The Audit Report of the Comptroller and Auditor General of India (Civil) for the year ended March 2009 discussed the implementation of NRHM in the State. The Public Accounts Committee (PAC) in its 56th report made recommendations on the report and Audit also examined the follow-up action of the Department on the recommendations of the PAC.

Audit methodology included scrutiny of records and gathering of evidence by issue of audit enquiries and conduct of joint inspections alongwith Departmental officials. The Performance Audit commenced with an Entry Conference with the Additional Chief Secretary, Health and Family Welfare Department, Government of Kerala on 11 May 2017 wherein the audit objectives, scope and methodology of audit were discussed in detail. An Exit Conference was held with the Additional Chief Secretary to Government on 21 November 2017

[5] 32 PHCs, 16 CHCs, 8 Taluk/Taluk Headquarters Hospitals, 4 District Hospitals, 4 General Hospitals and 1 Women and Child Hospital.

wherein the audit findings were discussed and responses of Government obtained.

2.4 Audit Objectives

The Performance Audit was conducted to assess whether:

- the interventions of National Health Mission (NHM) in the areas of Maternal health, Child health, Family planning and Immunisation were effective in improving health standards of women and children in the State and were targeted to achieve UN Sustainable Development Goal of 'Good Health and Well-being' as adopted by the Government of India;
- the physical and human resources were adequate and procurement of equipment and drugs were efficient and economical in providing improved health care service; and
- the overall financial management including release and utilisation of funds earmarked under various schemes was efficient and effective.

2.5 Audit criteria

Audit findings were benchmarked against the criteria derived from the following documents:

- NRHM Framework for Implementation, 2005-12 and 2012-17;
- Operational Guidelines for Financial Management;
- Indian Public Health Standards, 2012 for Sub-Centres, Primary Health Centres, Community Health Centres, Sub-Divisional Hospitals and District Hospitals;
- Operational Guidelines for Quality Assurance in Public Health Facilities, 2013;
- Audited Annual Financial Statements of State Health Society;
- Guidelines of various GOI schemes under NHM;
- World Health Organisation (WHO) standards; and
- State/Central Public Works Department Manuals.

Audit Findings

2.6 Attainment of demographic goals

Improving maternal and child health and their survival are central to the achievement of national health goals. NHM aimed to reduce Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR) and Total Fertility Rate (TFR). In this process, NHM was expected to help achieve related goals set under the UN Sustainable Development Goals by 2030. The performance of the State was impressive and exceeded the targets set under the UN Sustainable Development Goals as indicated in **Table 2.1**.

Table 2.1: Status of target and achievement of IMR, MMR and TFR

Performance indicators	NHM framework for implementation (2012-17)		UN Sustainable Development Goals (2030)	
	Target	Achievement as on 31.03.2017	Target	Achievement as on 31.03.2017
IMR (Infant Mortality Rate)	25 per 1000 live births	6	12 per 1000 live births	6
MMR (Maternal Mortality Rate)	100 per 100000 live births	29	70 per 100000 live births	29
TFR (Total Fertility Rate)	Reduce to 2.1	1.6[6]	No target	

(Source: Directorate of Health Services)

2.7 Non-allotment of State share of funds

The State NHM received funds directly from the Ministry of Health and Family Welfare, Government of India (GOI) upto the year 2013-14. From the year 2014-15 onwards, GOI released funds to Government of Kerala (GOK), which, in turn released the same to State Health Society through the DHS. The funding pattern from 2012-13 to 2014-15 between GOI and State was in the ratio 75:25 which shifted to 60:40 from 2015-16. Year-wise details of receipt of funds and expenditure of SHM, Kerala during 2012-17 were as shown in **Table 2.2**.

Table 2.2: Grants received and expended under NHM during 2012-17

(₹ in crore)

Period	Opening Balance	Central Grant received	State share released	Interest earned during the year	Total fund available	Total fund expended by NHM	Closing Balance[7]
1	2	3	4	5	6 = 2+3+4+5	7	8 = 6-7
2012-13	46.56	490.55	30.00	5.14	572.25	626.98	-54.73
2013-14	-54.73	360.98	76.94	5.08	388.27	632.30	-244.03
2014-15	-244.03	521.99	112.24	5.89	396.09	628.71	-232.62
2015-16	-232.62	315.35	70.00	4.62	157.35	682.64	-525.29
2016-17	-525.29	455.25	302.80	1.15	233.91	744.78	-510.87
TOTAL		**2144.12**	**591.98**	**21.88**	**1747.87**	**3315.41**	

(Source: GOI correspondence and data obtained from NHM/Directorate of Health Services)

The NHM Framework for Implementation, 2005-12 (Guidelines), while referring to the finances of the Mission specifically stated that the aim of NHM was to increase the share of Central and State Governments on health care. The Guidelines stipulated that it must be ensured that the State expenditure on health increased in real terms and there was no substitution of the State expenditure by Central expenditure.

[6] Data as per National Family Health Survey – 04/2015-16.
[7] The additional expenditure over and above the total fund available was met from the State Plan fund.

Audit observed that as per letter forwarded (April 2017) from GOI to NHM, against the release of ₹2144.12 crore by GOI during 2012-17, GOK should have contributed ₹915.20 crore. However, the actual release was only ₹591.98 crore resulting in a short release of ₹323.22 crore. It was noticed that even though GOK contribution was less to the extent of ₹323.22 crore during 2012-17, GOK reported its contribution to GOI as ₹901.74 crore. Audit scrutinised the accounts of GOK/NHM for the period 2012-17, which revealed that GOK released from the State Plan fund, ₹249.01 crore in 2012-13 and ₹60.73 crore in 2014-15 to NHM, for execution of various plan schemes. Thus, ₹309.74 crore, which was released from the State Plan Fund was intimated to GOI as State share of contribution to NHM. The booking of State plan funds as State share of funds under various heads of account, which were not related to NHM activities, was contrary to the guidelines, which required the State expenditure on health to increase in real terms. The statement of the Government during the Exit Conference (November 2017) that the matter was discussed with GOI and settled was not accepted by Audit in the absence of records to substantiate the claim.

2.8 Health care for Women

The maternal health care package with its focus on the health of women during pregnancy, childbirth and post-partum period was a vital component of NHM due to its profound effects on the health of women, immediate survival of the newborn and long-term well-being of children. Key strategies to improve maternal health included improved access to skilled obstetric care through facility development, increased coverage and quality of antenatal and postnatal care, increased access to skilled birth attendance, institutional delivery, etc. The important services for ensuring maternal health care included antenatal care, delivery care and postnatal care. As per Indian Public Health Standards (IPHS) 2012, health institutions of the status of PHCs and above shall be equipped with the Minimum Assured Services of Ante Natal Care (ANC), Intra Natal Care (INC) and Post Natal Care (PNC). Audit examined whether there were adequate institutions for providing services to pregnant women and whether these institutions were equipped in terms of skilled manpower and equipment for providing delivery services to expectant mothers. Deficiencies noticed are discussed in the succeeding paragraphs.

2.8.1 Ante Natal Care (ANC)

Government of India, recognising that reproductive, maternal and child health cannot be addressed in isolation and that the health of adolescent girls and pregnant women impacted on the health of the newborn and the child, adopted (January 2013) a strategy of expanding the scope of Reproductive and Child Health (RCH) to Reproductive, Maternal, Newborn, Child plus Adolescent Health (RMNCH+A). The guidelines provided for interventions to be made at various stages of life cycle, which should be mutually linked.

The RMNCH+A guidelines identified delivery of antenatal care package and tracking of high-risk pregnancies as a priority intervention to monitor the progress of foetal growth and to ascertain the well-being of the mother. The women who reach the Health Centre for the first time only during labour carry

more risk of complications during childbirth. The NRHM Framework for Implementation issued by GOI as well as the IPHS stipulated the first antenatal checkup within the first 12 weeks of pregnancy and three checkups thereafter. The Guidelines also prescribed Iron and Folic Acid (IFA) supplementation of 100 milligram of elemental iron and 500 microgram of folic acid daily for 100 days during pregnancy, followed by same dose for 100 days in post-partum period. The position of ANC registration and services provided in the State during 2012-17 are as detailed in **Table 2.3**.

Table 2.3: ANC registration and services provided

Year	Total pregnant women registered for ANC	Registered within first trimester (12 weeks)	Received three ANC checkups during pregnancy	Not received three ANC checkups	Pregnant women who received TT1	Pregnant women who received TT2	Pregnant women who received 100 IFA tablets
2012-13	515226	396933	461253	53973	438339	415089	441235
2013-14	518811	412737	486203	32608	452769	435913	511134
2014-15	495640	401565	456179	39461	417985	399293	497822
2015-16	477820	385274	434759	43061	411064	388412	404900
2016-17	488095	403137	440375	47720	415964	388420	326231
TOTAL	**2495592**	**1999646**	**2278769**	**216823**	**2136121**	**2027127**	**2181322**
Percentage		**80.13**	**91.31**		**85.60**	**81.23**	**87.41**

(Source: Health Management Information System (HMIS) data)

Thus, during 2012-17, 80 *per cent* of 24.95 lakh pregnant women registered for ANC within the first trimester of pregnancy. Further, 2.17 lakh (nine *per cent*) did not receive three ANC checkups during the pregnancy period. There was also shortfall in the percentage of women who received Tetanus Toxoid (TT) shots. Against 85.60 *per cent* of women who received first dose of TT, 81.23 *per cent* received the second dose.

Audit observed that Government was not able to keep track of all pregnant women who were registered for ANC and ensure whether all of them received the stipulated quantum of ANC checkups, TT and IFA tablets at timely intervals. Government stated in the Exit Conference (November 2017) that due to ineffective data capturing, the sizeable share of pregnant women moving to private sector went unrecorded which was devoid of follow-up. Audit observed that unless those registered for ANC were tracked and followed up, the very purpose of registration was defeated.

Audit further noticed that over 12 *per cent* of 24.95 lakh pregnant women who had registered for ANC during 2012-17 did not receive 100 IFA tablets. Anaemia is a major cause of maternal mortality. Treatment against anaemia required[8] administration of a daily dose of IFA tablets for a period of 100 days to a pregnant woman. In the selected districts of Malappuram, Wayanad, Alappuzha and Thrissur, 44 out of 65 institutions test-checked reported stock out of IFA tablets during various periods in 2012-17. These districts also reported 3,774, 1,215, 363 and 1,104 instances respectively of severe anaemic[9] cases during 2012-17. In the 65 test-checked institutions, it was seen that 45,678

[8] Paragraph 4.1 (Supplementation Interventions by Ministry of Health and Family Welfare) of Guidelines for Control of Iron Deficiency Anaemia specified a requirement of 100 mg of elemental iron and 500 mcg of folic acid daily for 100 days for pregnant women.

[9] Severe anaemic cases – Cases where the haemoglobin level is below seven.

out of 2,31,587 pregnant women (19.72 *per cent*) who were registered for ANCs were not given the stipulated 100 IFA tablets. Besides, 1,931 pregnant women in the test-checked institutions were detected with severe anaemia.

2.8.2 Testing of pregnant women for HIV and STI infections

The RMNCH+A Guidelines issued by GOI (January 2013) identified parent-to-child transmission of Human Immunodeficiency Virus (HIV) as a major route of new and emerging HIV infections in children and suggested universal confidential HIV screening of pregnant women to be included as an integral component of routine ANC checkup. Diagnostic and laboratory services for management of Sexually Transmitted Infections (STI) and Reproductive Tract Infections (RTI) were to be provided at all CHCs, First Referral Units and at 24x7 PHCs. Further, special focus was to be given to linking up with Integrated Counselling and Testing Centres (ICTCs) and establishing appropriate referrals for HIV testing and RTI/STI management.

Audit noticed that out of 24.95 lakh pregnant women who registered for ANC checkups during 2012-13 to 2016-17, 36.88 *per cent* and 55.86 *per cent* were not tested for HIV and STI respectively during 2012-17 as shown in **Table 2.4**.

Table 2.4: Status of conduct of HIV/STI tests in pregnant women

Year	Total pregnant women registered for ANC	No. of pregnant women tested for HIV	No. of pregnant women not tested for HIV	*Per cent* not tested	No. of positive cases in HIV tested cases	No. of pregnant women tested for STI	No. of pregnant women not tested for STI	*Per cent* not tested
2012-13	515226	260027	255199	49.53	413	182058	333168	64.66
2013-14	518811	303909	214902	41.42	60	214545	304266	58.65
2014-15	495640	318140	177500	35.81	94	223502	272138	54.91
2015-16	477820	329310	148510	31.08	67	223242	254578	53.28
2016-17	488095	363758	124337	25.47	376	258118	229977	47.12
TOTAL	**2495592**	**1575144**	**920448**		**1010**	**1101465**	**1394127**	
Percentage				**36.88**				**55.86**

(Source: HMIS data)

Data obtained from the four test-checked districts revealed that during 2012-17, 1.53 lakh cases of suspected RTI/STI were identified during testing. In addition, 69 instances of pregnant mothers afflicted with HIV were also detected during the period in the test-checked districts. The possibility of more such cases escaping detection due to non-testing of pregnant women could not be ruled out.

GOK stated (November 2017) that the reports received on HIV testing of pregnant women were low since the data captured was mainly the reports from Facility Integrated Counselling and Testing Centres (FICTC). GOK also stated that 60 *per cent* of the population accessed private hospitals for their medical care and that, only 50 *per cent* of FICTCs established in CHCs and PHCs were functional. The reply was not justifiable since the data on such pregnant women who were registered for ANC and not screened for HIV/RTI/STI was derived from the HMIS, which was a fully functional health information system and included data from multiple information systems in various health programmes.

Recommendation 2.1: Government may ensure that pregnant women who register for ANC are tested for HIV/STI and administered with the required doses of IFA tablets/TT vaccine.

2.8.3 Adequacy of health centres and manpower

The NHM, in its Framework for Implementation 2005-12, stipulated the norms for setting up of Sub-Centres, Primary Health Centres (PHCs) and Community Health Centres (CHCs) on the basis of population. It was envisaged therein that one Sub-Centre was to be set up for a population of 5000 (3000 in hilly and tribal areas), one PHC for 30,000 population (20,000 in hilly and tribal areas) and one CHC for 1,20,000 population (80,000 in hilly and tribal areas).

Audit noticed shortfall in setting up of Sub-Centres, PHCs and CHCs as per population norms (2011 census) in the State and selected districts. Under NHM, the CHCs were conceived as health service providers, capable of addressing 80 *per cent* of all ailments requiring out-patient services or hospitalisation. Considering their importance in delivery of health care services, the NHM attached great significance to strengthening existing CHCs and setting up new ones to bring them in conformity to the ratio of one per population of 1,20,000. The shortfall in setting up of CHCs was acute in Malappuram (54 *per cent*) and Thrissur (62 *per cent*), as shown in **Table 2.5**.

Table 2.5: Shortfall in setting up of Sub-Centres, PHCs and CHCs

State/District	Availability of								
	Sub-Centres			PHCs			CHCs		
	Required as per norms	Actual	Shortfall (*per cent*)	Required as per norms	Actual	Shortfall (*per cent*)	Required as per norms	Actual	Shortfall (*per cent*)
Kerala	9263	5408	3855 (42)	1293	848	445 (34)	366	232	134 (37)
Wayanad	278	204	74 (27)	32	23	9 (28)	9	9	0 (00)
Malappuram	959	589	370 (39)	160	84	76 (48)	48	22	26 (54)
Thrissur	636	472	164 (26)	106	79	27 (25)	63	24	39 (62)
Alappuzha	467	366	101 (22)	78	59	19 (24)	16	16	0 (00)

(Source: Data from DHS and DPMs)

Audit observed that GOK did not set up stipulated number of CHCs and also did not fill up vacancies of doctors and para medical staff to the extent of 48 *per cent* and 35 *per cent*, respectively in test-checked institutions. This resulted in patients not receiving envisaged benefits.

The need for filling up the vacancies in the cadre of doctors and para medical staff in CHCs and PHCs, as per IPHS norms, was also emphasised by the Public Accounts Committee (PAC) in its 56th report. Though, in the Action Taken Report, GOK stated (October 2015) that 564 posts were created in PHCs and CHCs, the problem of shortage of doctors and para medical staff in CHCs persisted.

Recommendation 2.2: Government may address the shortfall in health centres also, after the shortfall in availability of doctors, nurses and para medical staff is effectively addressed.

2.8.4 Availability of delivery facility

The Janani Suraksha Yojana (JSY) implemented by GOI since April 2005 as a 100 *per cent* Centrally Sponsored Scheme (CSS) under the overall umbrella[10] of NHM, targeted to reduce overall maternal and infant mortality ratios, besides aiming to increase institutional deliveries in Below Poverty Line (BPL) families. The strategy involved operationalisation of 24x7 delivery services to provide basic obstetric care at PHC level and First Referral Units (FRU) to provide emergency obstetric care, etc. Similarly, the Janani Shishu Suraksha Karyakram **(**JSSK) under NHM launched by GOI (June 2011), stressed upon entitlements and elimination of out of pocket expenses for pregnant women and sick neonates, promotion of institutional deliveries and proper care of newborn in all health institutions across the State. Audit noticed that out of the test-checked 65 health institutions in the selected districts of Wayanad, Malappuram, Thrissur and Alappuzha, delivery facility was not available in 50 institutions. These included 32 PHCs and 15 CHCs wherein the post of Gynaecologist was not created. Of the remaining three institutions, delivery service was not provided in General Hospital (GH), Alappuzha since the District already had a Women and Children hospital. Delivery was not conducted in Taluk Hospital (TH), Thuravoor due to lack of infrastructure and manpower. In TH Pudukkad delivery facility was not provided inspite of the availability of Gynaecologists, citing the reason of poor infrastructure. Government (November 2017) replied that specialist posts as per IPHS were not available in CHCs and PHCs. The Additional Chief Secretary, Health and Family Welfare Department also admitted in the Exit Conference (November 2017) that some THs were not having satisfactory facilities.

The IPHS also envisaged PHCs and CHCs to provide delivery services such as Ante Natal Care, Intra Natal Care[11], Post Natal Care, Newborn Care, etc., as part of Maternal and Child Health care. Audit observed that none of the 245 PHCs in the test-checked districts provided delivery services. In fact, even the CHCs were not equipped to handle delivery services in the four test-checked districts with only two[12] out of the 71 CHCs providing delivery services. Out of the 20 TH/Taluk Headquarters Hospitals (THQHs) in the test-checked four districts, delivery facility was being provided in 16 hospitals. The district wise details are shown in **Table 2.6**.

Table 2.6: Shortfall in PHC/CHC/THQH/TH providing delivery facility

Name of district	Total no. of PHCs	No. of PHCs where delivery facility is provided	Total no. of CHCs	No. of CHCs where delivery facility is provided	Total no. of TH/ THQHs	No. of TH/THQHs where delivery facility is provided
Alappuzha	59	0	16	0	6	3
Thrissur	79	0	24	0	6	5
Malappuram	84	0	22	1	6	6
Wayanad	23	0	9	1	2	2
Total	**245**	**0**	**71**	**2**	**20**	**16**

(Source: Data received from DHS)

[10] The assistance under JSY would form part of the overall release under NHM. The implementation of JSY would be as per the parameters indicated in the JSY guidelines.
[11] 24-hour delivery services, both normal and assisted.
[12] CHC Meenangadi in Wayanad district, CHC Edappal in Malappuram district.

Audit observed that despite GOK sanctioning posts of Gynaecologists in four out of 16 test-checked CHCs, a Gynaecologist was posted only in CHC Meenangadi in Wayanad district. In respect of another hospital *viz.*, CHC Pulpally in Wayanad district, even though the hospital had a six-bedded maternity ward, a well-equipped operation theatre and labour room with adequate facility, there was no Gynaecologist and the hospital generally provided only ANC. However, the hospital provided delivery services in instances where patients were not in a position to be transferred to other hospitals. Significantly, while it is to be appreciated that the CHC, Pulpally provided normal delivery services to 35 pregnant women during 2012-17 even without the services of a Gynaecologist, Anaesthetist and Paediatrician and without essential facilities like Blood storage unit and Newborn care corner, it needed to be emphasised that both mothers and babies were exposed to avoidable risks.

2.8.5 Impact of inadequate manpower and infrastructure on maternal care

The IPHS guidelines recognised that Sub-divisional hospitals (Taluk Hospitals in Kerala) were below the district level and above the block level (CHC) hospitals and acted as First Referral Units (FRU) for the Tehsil/Taluk/Block population in which they were geographically located. These guidelines also recognised that THs had an important role to play as FRUs in providing emergency obstetric and neonatal care and helped in bringing down MMR and IMR. As per IPHS, TH/THQHs were classified as those with bed strength from 31 to 100. Audit test-checked the availability of Gynaecologists in eight out of 20 THs/THQHs in the selected districts. It was noticed that Gynaecologists were not available in one out of the eight test-checked THs/THQHs. There was shortage of one Gynaecologist in one hospital as detailed in **Table 2.7**.

Table 2.7: Shortage of Gynaecologists

Name of hospital	Bed strength	Sanctioned strength	Men in position	Requirement as per IPHS	Shortage
THQH Kayamkulam	125	2	2	2	Nil
THQH Kodungallur	176	2	2	2	Nil
TH Pudukkad	75	2	2	1	Nil
THQH Ponnani	125	2	2	2	Nil
THQH Tirurangadi	157	3	2	2	Nil
THQH Sulthan Bathery	127	2	1	2	1
THQH Vythiri	129	3	3	2	Nil
TH Thuravoor	24	1	0	1	1

(Source: Details collected from health institutions)

- Audit noticed number of deliveries in 10[13] out of 15 hospitals coming down during the last three years due to shortage of Gynaecologists. Due to this the possibility of these hospitals turning away patients cannot be ruled out. In THQH Tirurangadi, Audit noticed that the number of deliveries was steadily declining over the years from 574 during 2012-13 to 284 during 2016-17. Analysis of the confinement register

[13] GH Thrissur, DH Mananthavady, THQH Vythiri, CHC Meenangadi, DH Tirur, THQH Tirurangadi, THQH Kodungallur, W&C Alappuzha, DH Mavelikkara and THQH Kayamkulam.

maintained by the Hospital revealed that the number of primipara[14] cases attended to by the hospital during 2015-17 was only seven out of 635 deliveries. The Hospital stated (August 2017) that patients were aware of risk factors like there being no Paediatrician on call and no facility for emergency intervention and therefore requested for reference to higher centres during the course of antenatal checkup. Similarly, in THQH Vythiri, delivery facilities were not made available to the patients from August 2015 to June 2017 due to the transfer of the lone Gynaecologist to another hospital. GOK stated (November 2017) that measures were being taken to fill all the sanctioned posts of Gynaecologists in different hospitals in the State. However, the fact remains that had the risk factors been minimised, these ANC patients could have claimed delivery service from PHCs/CHCs and not sought reference to higher centres as stated above. Thus, the objective of NHM to provide health to all in an equitable manner was not achieved.

- Audit noticed in District Hospital (DH), Mananthavady that GOK accorded sanction (November 2005) to increase the bed strength from 274 to 500 since the average number of inpatients was between 475 and 500 per day. Similarly, in respect of GH, Kalpetta GOK accorded sanction (November 2005) to increase the bed strength from 43 to 250. However, neither the number of beds was increased nor the infrastructure developed to cater to the demand, citing paucity of funds. Audit observed that the constraints in space and bed strength led to situations like patients sharing beds and even resting on floors as shown in **Picture 2.1** below.

Picture 2.1: Patients sharing beds at DH Mananthavady in Wayanad District (28 June 2017)

Picture 2.2: Delivery patients resting in corridors and floors at GH Manjeri in Malappuram District (24 May 2017)

- GOK attached (January 2014) General Hospital (GH) Manjeri, including its staff and equipment to Government Medical (GM) College, Manjeri for the purpose of medical education. GOK also renamed (June 2014) the GH Manjeri as GM College, Manjeri. While the Superintendent, GH was designated as Superintendent (Administration),

[14] Primipara cases relate to women who are pregnant for the first time.

the Principal, GM College Manjeri was given overall control of the hospital for the purpose of running the Medical College.

Joint physical verification (24 May 2017) of the antenatal and postnatal wards in the GM College, Manjeri, revealed that 88 patients were allowed to be admitted though the sanctioned bed strength was 78. Patients were lying on the floor or sharing beds with other patients. The normal delivery patients along with the newborn were accommodated on the floor in the corridor, as seen in **Picture 2.2**. Two instances of pregnant women giving birth to children in the toilet at ANC ward occurred in 2016 and 2017. The Hospital stated (August 2017) that lack of vacant beds in the labour room forced the patients to be retained in ANC wards. In these circumstances, it is felt that there was need for increasing the bed strength to accommodate the increasing number of patients.

The Superintendent (Administration) of the GM College, Manjeri stated (November 2017) that the existing hospital buildings were converted into Medical College Education Unit for housing the academic blocks and Clinical Academic areas. He also confirmed that a building originally constructed for the Women and Child (W&C) block was converted into an academic block for the GM College, Manjeri. Audit was further informed by the Government in its reply that despite the need for more beds, no proposal seeking increase of bed strength was forwarded by GM College, Manjeri due to lack of space for constructing new buildings.

The reply of the Superintendent (Administration) was not justifiable as GM College, Manjeri despite facing shortage of beds converted the building constructed for accommodating women and children into an academic block. The upgradation of the GH Manjeri into the GM College, Manjeri without enhancing the existing limited facilities adversely impacted on the delivery of services for maternal care.

2.8.6 Shortage of drugs and consumables in Post-Partum Units

All services relating to Reproductive and Child health programme, immunisation sessions, monthly clinics, etc., are conducted through Post-Partum Unit (PPU). The Guidelines for Control of Iron Deficiency Anaemia issued by the GOI emphasises IFA supplementation among pregnant women and lactating mothers. Stock-out of drugs and consumables was noticed in 47 of the 65 test-checked institutions with period of stock-outs ranging from two to 74 months as detailed in **Appendix 2.1**. The stipulations contained in the National Health Mission Framework for Implementation 2012-17 requiring hospitals to provide for appropriate increase in drugs and supplies commensurate with caseloads was not achieved.

2.8.7 Deliveries through Caesarean sections

Government of Kerala recognising that the percentage of Caesarean section (C-section) among the total number of deliveries was on the increase, issued guidelines (May 2011) for reduction of C-sections and promotion of safe vaginal delivery. GOK, while emphasising the WHO recommendation that C-

section among the Primipara should be limited to less than 15 *per cent*, observed that the average proportion of C-sections in Kerala was higher than the national average and that high risk of complications in second C-section warranted reduction of primary C-section to as minimum as possible. Against the national average of 17.20 *per cent*[15] C-sections, data obtained from the Directorate of Health Services (DHS), Kerala indicated that 40 to 42 *per cent* of the deliveries in the State during 2012-17 were C-sections. Audit noticed an increase in percentage of C-section deliveries in 2016-17 over 2012-13, in respect of nine out of 15 institutions test-checked as detailed in **Appendix 2.2**. Though the remaining six institutions did not show a similar increase in 2016-17, it was observed that the percentage of C-section deliveries was still high and ranged between 20.58 and 49.01 *per cent*. During the Exit Conference (November 2017), Government accepted that the State average of C-section deliveries was high as compared to the national average and admitted that it was a shameful situation. Government also admitted its failure to bring down the percentage of C-section inspite of concerted efforts.

2.8.8 Janani Shishu Suraksha Karyakram (JSSK)

Janani Shishu Suraksha Karyakram (JSSK) launched on 01 June 2011, was an initiative to assure cashless services to all pregnant women including normal deliveries, C-sections, and treatment of sick newborn (upto 30 days after birth) in all Government health institutions across the State. In order to reduce MMR and IMR, JSSK under NHM stressed upon promotion of institutional deliveries and proper care of newborn. The entitlements for pregnant women under JSSK included free and zero expense delivery and C-section, free Drugs and Consumables, free Diagnostics (Blood, Urine tests, Ultrasonography, etc.), free diet during stay in the health institutions (upto three days for normal deliveries and upto seven days for caesarean deliveries), free provision of blood, free transport from home to health institutions, between facilities in case of referrals and drop back from institution to home.

2.8.8.1 Deficiencies in providing free diet and other facilities to pregnant women under Janani Shishu Suraksha Karyakram (JSSK)

- ***Supply of diet***

  JSSK guidelines envisaged that extra calorific diet was to be provided to mothers upto three days for normal deliveries and upto seven days for caesarean deliveries. Further, GOI while launching the scheme stated that non-availability of diet at the health facilities demotivates the delivered mothers from staying at the health facilities and consequently, most of the mothers prefer returning home after delivery, at the earliest.

  The JSSK guidelines envisaged to provide cooked food, local seasonal fruits, vegetables, milk and eggs. The NHM, in its Circular (August 2012) suggested supply of bed coffee, breakfast, seasonal fruits, lunch, tea and snacks and dinner to the beneficiaries under the scheme. Audit observed that only six[16] of the 15 delivery points test-checked, which

[15] Data obtained from National Family Health Survey – 4 as average of last five years before 2015-16.
[16] CHC Meenangadi, W&C Alappuzha, GH Manjeri, General Hospital Thrissur, District Hospital Wadakkancherry and TH Kodungallur.

included one Women and Children (W&C) hospital, three GHs, four DHs, six THs and one CHC provided diet as specified in JSSK guidelines. The details of two institutions, which failed to provide any diet to the mothers and that of the remaining seven institutions where diet as supplied did not conform to the Guidelines, are given in **Appendix 2.3**. It was also observed that in four[17] institutions, the mothers were discharged from the institutions prior to the days prescribed (three days for normal and seven days for LSCS[18]) in the Guidelines resulting in mothers not receiving the stipulated diet.

Lack of sufficient intake of calorific food by mothers in post-partum period could hamper adequate care of the mothers and neonates. GOK stated (November 2017) that strict instructions were issued to the districts to ensure free diet for pregnant women in all institutions. GOK further stated that though Post-Partum duration of hospital stay varied from individual to individual and was the choice of the patient as well, institutions were since instructed not to discharge mothers prior to acquiring fitness.

- ***Non-implementation of patient transport ambulance under JSSK and resultant parking of ₹11.88 crore with KMSCL***

The JSSK launched by GOI (June 2011) provided for free and cashless services to pregnant women including normal deliveries and caesarean section deliveries and also treatment of sick newborn (upto 30 days after birth) in all Government health institutions across State/UT. As per the initiative, all pregnant women shall be provided with free transportation from residence to the health centre, from there to the referral points, if needed and back to residence. Patient Transport Ambulance (102) services essentially consisted of basic patient transport aimed to cater to the needs of pregnant women and sick infants under JSSK. It was observed that the patient transport ambulance system was not set up (November 2017) and instead the State Mission Director, NHM accorded sanction (August 2012) to disburse cash assistance of ₹500 each to the mothers until GOK established transport system for the pregnant women under JSSK.

Audit examined the reasons for not setting up the patient transport ambulance system as envisaged under the JSSK guidelines. It was observed that an amount of ₹27.45 crore (₹15.57 crore for purchase of 283 Patient transport ambulances, ₹5.09 crore for setting up a control room and ₹6.79 crore for its operational cost) was earmarked in the approved Programme Implementation Plan (PIP) for 2012-13 for the purchase and operation of patient transport ambulance. NHM transferred (March 2013) ₹11.88 crore to M/s. Kerala Medical Services Corporation Ltd (KMSCL), which included ₹5.09 crore for setting up of a control room and ₹6.79 crore to meet operational costs. However, the cost of purchase of ambulances (₹15.57 crore) was not transferred to KMSCL. Audit noticed that KMSCL neither set up the call centre nor purchased ambulances as the cost of ambulances (₹15.57 crore) was not

[17] TH Sultan Bathery, DH Tirur, TH Ponnani and THQH Tirurangadi.
[18] Lower Segment Caesarean Section.

transferred to them. Thus, ₹11.88 crore was retained by KMSCL since March 2013. It was also noticed that NHM submitted Utilisation Certificate (UC) for 2012-13 to GOI certifying that all amount received during 2012-13 was utilised.

Audit observed that besides parking ₹11.88 crore with the KMSCL since March 2013, an amount of ₹3.23 crore[19] was paid as cash assistance to the beneficiaries in test-checked institutions thereby violating the scheme guidelines.

GOK stated (November 2017) that though ₹11.88 crore was released to KMSCL for patient transport ambulance, formal directions for purchase of vehicles and implementation of the project were yet to be issued resulting in the idling of funds. The reply was not acceptable since NHM and GOK were bound to utilise the funds approved by GOI for setting up of patient transport ambulance system under JSSK. The reply also failed to explain why NHM misled GOI by forwarding UC certifying that all amounts received during 2012-13 were expended, when ₹11.88 crore was parked unspent with KMSCL. Government stated in the Exit Conference (November 2017) that the matter would be looked into. Failure to utilise funds for the intended purpose and submission of wrong UCs calls for fixation of responsibility.

- ***Free Drugs and Consumables/Diagnostics/Blood***

  The scheme envisages cashless service to women on account of free supply of drugs and consumables, diagnostic services and blood transfusion. Visits to hospitals during the course of Audit revealed that in three out of 15 delivery points, pregnant women were compelled to purchase medicines and blood from outside sources (**Appendix 2.4**). GOK stated (November 2017) that consequent to observations of Audit steps were taken to ensure that the entitlements envisaged under the scheme would be made available to all mothers. However, the steps taken were not intimated to Audit, despite being asked.

2.9 Health care of children

2.9.1 Setting up of facilities for newborn at delivery points

The IPHS 2012 and the Operational guidelines for Facility Based Newborn Care mandated all facilities where deliveries were conducted, to set up Newborn Care Corner (NBCC)[20]. Similarly, all FRUs/CHCs needed to have a Newborn Stabilisation Unit (NBSU)[21], in addition to NBCC, with a Paediatrician in charge. It was also stipulated that any facility with more than 3,000 deliveries per year should have a Special Newborn Care Unit (SNCU), which would

[19] At the rate of ₹500 per beneficiary.

[20] Newborn Care Corner (NBCC) – a space within the delivery room in any health facility, where immediate care is provided to all newborns at birth. This is mandatory for all health facilities where deliveries are conducted.

[21] Newborn Stabilization Unit (NBSU) – a facility within or in close proximity of the maternity ward where sick and low birth weight newborns can be cared for during short periods. All FRUs/CHCs need to have a Neonatal Stabilization Unit, in addition to the Newborn Care Corner.

provide special care (all care except assisted ventilation and major surgery) for the sick newborn.

Data obtained from the DHS revealed that there were 107 delivery points in the State (March 2017). Though the DHS stated (October 2017) that NBCC was available at all delivery points, test-check revealed that three[22] out of 15 delivery points did not have the facility. There was shortfall in setting up NBSUs also. Across the State, NBSUs were not available in 41 out of 107 delivery points. NBSUs were not available in five[23] out of 15 delivery points test-checked. Two delivery points *viz.*, DH, Wadakkancherry and DH, Mananthavady neither had NBCC nor NBSU facilities. Thus, 10 delivery points out of 15 test-checked, failed to set up stipulated facilities for the newborn.

Audit also noticed in the 10 delivery points which were lacking either in NBCCs/NBSUs or both, shortfall in filling up of sanctioned posts of Paediatricians in four delivery points. While shortfall of one Paediatrician against two sanctioned posts was noticed in THQH, Kodungallur and TH, Kayamkulam, there was shortfall of one Paediatrician against three sanctioned posts in GH, Thrissur. In DH, Mananthavady, shortfall of two Paediatricians against the sanctioned four posts was observed.

As GOK neither set up the required number of NBCCs and NBSUs nor effectively addressed the problem of shortages of Paediatricians, the newborns were denied the envisaged special care. Government agreed in the Exit Conference (November 2017) that the non-availability of NBCC was a very serious issue. Government further stated that NBSUs were provided in 66 institutions and that NBSUs in remaining institutions would be proposed in the next programme implementation plan of NHM.

2.9.2 Low birth weight (LBW) babies

World Health Organisation (WHO) defined Low Birth Weight (LBW) babies as such infants with a birth weight of 2,499 grams or less. It estimated that LBW contributed to 60 to 80 *per cent* of all neonatal deaths. Audit observed that the percentage of LBW babies increased in 2016-17 compared to 2012-13 for the State as well as selected districts as detailed in **Table 2.8**.

Table 2.8: Percentage of LBW babies in the State and selected districts

State/District	2012-13	2013-14	2014-15	2015-16	2016-17
Kerala	**10.90**	**11.21**	**10.83**	**11.72**	**12.36**
Alappuzha	9.57	9.80	10.81	12.24	12.15
Thrissur	8.01	8.10	8.20	10.38	9.39
Malappuram	11.71	11.82	12.23	10.99	14.31
Wayanad	15.04	14.75	15.41	15.38	16.39

(Source: HMIS data)

The percentage of LBW babies in the test-checked 15 delivery points ranged from 2.60 to 30.61 during 2012-17 as detailed in **Appendix 2.5**. Operational Guidelines for Facility Based Newborn Care, 2011, stipulated setting up of NBSUs in every FRU and CHC. The expected services to be provided at NBSUs

[22] THQH Kodungallur, TH Kayamkulam and THQH Ponnani.
[23] THQH Vythiri, GH Kalpetta, W&C Hospital Alappuzha, GH Thrissur and CHC Meenangadi.

included management of LBW infants less than 1.8 kg[24] with no other complication. Only 10 of the 15 institutions test-checked offered records showing details of children weighing less than 1.8 kg at birth. Audit noticed that almost 7.82 *per cent* of the underweight children recorded weight of less than 1.8 kg. Audit observed that eight, 38 and 10 *per cent* of underweight children delivered in DH Mananthavady, W&C Alappuzha and GH Kalpetta respectively during 2012-17 were less than 1.8 kg in birth weight. Even though the percentage of LBW babies was increasing in the State, NBSUs and NBCCs which were required for stabilisation of such babies were not setup in the delivery points.

2.9.3 Child Health Screening and Early Intervention Services under NHM

2.9.3.1 District Early Intervention Centres (DEIC)

Government of India launched (February 2013) the Rashtriya Bal Swasthya Karyakram (RBSK) targeted to deliver Child Health Screening and Early Intervention Services under NHM. The scheme envisaged to cover 30 identified health conditions for early detection, free treatment and management through dedicated mobile health teams placed in every block in the country. The operational guidelines of the scheme envisaged first level of screening[25] to be done at all delivery points through existing Medical Officers, Staff Nurses and Auxiliary Nurse Midwives (ANM). After 48 hours till six weeks, the screening of newborns were to be done by ASHA[26] at home as a part of Home Based Newborn Care (HBNC) package.

Dedicated Mobile Health Teams (MHT) were to be constituted to conduct outreach screening to children between six weeks and six years at Anganwadi Centres and to children aged between six and 18 years at schools. The scheme envisaged engagement of at least three MHTs in each block to conduct screening of children. Each MHT was to consist of four members *viz*., two Doctors (AYUSH), one male and one female, one ANM/Staff nurse and one pharmacist. The screening of children in the Anganwadi Centres was to be conducted at least twice a year and at least once a year for school children to begin with.

The RBSK also envisaged setting up of District Early Intervention Centres (DEIC) at the District Hospital level across the country. The DEICs were to be the first referral points for further investigation, treatment and management of children detected with health conditions during health screening. A team consisting of one Paediatrician, one Medical officer, one Dentist, two Staff Nurses, Paramedics and visiting specialists will be engaged to provide services.

Audit observed laxity in implementation of the scheme, as discussed below.

- Even though the State constituted DEICs, which were functional from 2013-14 onwards, it neither constituted dedicated MHTs nor proposed capital cost for setting up the same as required under the guidelines. The

[24] Infants with birth weight more than 1.2 kg and less than 1.8 kg have significant problems in neonatal period.
[25] Screening of visible defects like cleft lip, clubfoot, etc.
[26] Accredited Social Health Activist (ASHA).

screening activities to be undertaken by the MHT were being done by Junior Public Health Nurses (JPHN) who were trained and posted for the purpose. The District Programme Managers (DPM) and the State Health Society confirmed that these nurses were being deployed for screening in Anganwadis and schools for which proposals were made and funds allotted. Thus, the action of NHM of deploying JPHNs instead of Doctors was not in order. The probability of JPHN failing to detect children with health condition cannot be ruled out.

Audit observed that the scheme guidelines provided for doctors to be part of the MHT and that a JPHN, however well trained, would still not be able to identify health conditions like Neural Tube defects, Down's Syndrome, Congenital cataract, Congenital deafness, Congenital Heart diseases, Thalassemia, etc. Thus, the screening activities done by JPHN were not in compliance with RBSK guidelines which clearly stipulated that there should be two doctors in each team to screen the children with the help of an ANM/Staff nurse.

- Audit observed that even though DEICs were formed in all the selected districts, they were working without the service of Paediatrician in Wayanad and Malappuram districts. DPMs of both districts replied that interviews were being arranged to fill the post.
- Scrutiny of records maintained at DEICs Alappuzha, Malappuram, Wayanad and Thrissur districts for the year 2016-17 revealed that out of 9,588 children referred to DEICs under the School Health programme, only 1,616 children reached DEICs for further treatment. Thus, almost 83 *per cent* of the children did not report for further treatment. There was no mechanism at the DEICs to ensure that all cases referred from various periphery level institutions reached DEICs for further investigation and treatment.

Thus, the objective of DEIC to intervene in the early stages of child health could not be achieved in the test-checked districts. Government stated in the Exit Conference (November 2017) that the issue of these children not being followed up was serious and directed NHM and DHS to initiate immediate action to track every child referred to DEIC.

Recommendation 2.3: GOK may direct DEICs to maintain database of children referred to them including follow-up activities to ensure that all cases referred from various periphery level institutions reached DEICs.

2.10 Family planning

2.10.1 Non-availability of Family planning activities

As per IPHS, 2012, all PHCs shall provide Education, Motivation and Counselling to adopt appropriate family planning methods and to provide for contraceptives such as condoms, oral pills, emergency contraceptives and Intra Uterine Contraceptive Device (IUCD) insertions. The standards also envisaged that CHCs would provide full range of family planning services including Information, Education and Communication (IEC), counselling, provision of

Contraceptives, Non-Scalpel Vasectomy (NSV), Laparoscopic Sterilisation Services and their follow-up.

It was observed that all the 32 PHCs test-checked provided all the family planning activities as envisaged in IPHS, except IUCD insertion. Of the test-checked 16 CHCs, only three CHCs[27] provided all the stipulated family planning activities. None of the remaining 13 test-checked CHCs provided Tubectomy, Vasectomy and Laparoscopy services. All family planning activities were being provided in all the TH/THQHs except TH Thuravoor[28]. The details are as shown in **Table 2.9**.

Table 2.9: Details of institutions providing family planning activities

Family Planning Activities	Alappuzha		Thrissur		Malappuram		Wayanad	
	PHC	CHC	PHC	CHC	PHC	CHC	PHC	CHC
Vasectomy	Not required	1	Not required	Nil	Not required	Nil	Not required	2
Tubectomy	Not required	1	Not required	Nil	Not required	Nil	Not required	2
Laparoscopy	Not required	1	Not required	Nil	Not required	Nil	Not required	2
IUCD insertion	Nil	4	Nil	4	Nil	4	Nil	4
Oral pills/Mini lap sterilisation/Condom distribution	8	4	8	4	8	4	8	4

(Source: Data collected from test-checked institutions)

Government stated (November 2017) that since most of the sterilisation procedures were performed by Gynaecologists or Surgeons, family planning measures were provided through Taluk/District/General/W&C hospitals. The reply was not acceptable in view of the fact that the State was to equip CHCs with full range of family planning activities as per IPHS norm.

2.11 Immunisation

2.11.1 Poor progress in Immunisation

The NHM Immunisation Handbook for Medical Officers recognises a child as fully immunised with all basic vaccinations, if the child has received Bacille Calmette-Guerin (BCG) vaccine against tuberculosis at birth; three doses each of polio and pentavalent (diphtheria, tetanus, pertussis, Hepatitis B (Hep) and Haemophilus influenza type B (Hib)) vaccines at 6, 10 and 14 weeks of age; and a vaccination against measles at nine months of age. Timely administration of vaccines has implications for the success of childhood immunisation programmes.

The details of immunisation in the selected districts from 2012-13 to 2016-17 are as shown in **Table 2.10**.

[27] CHCs Meenangadi, Pulpally and Ambalappuzha.
[28] Vasectomy and Tubectomy not available.

Table 2.10: Details of immunisation

District	Target	Fully immunised	Fully immunised (in *per cent*)	Partially immunised	Unimmunised
Wayanad[29]	72635	67669	93.16	5839	316
Malappuram	1275326	1148923	90.09	113604	12799
Thrissur	458992	454829	99.09	3908	255
Alappuzha	113745	112212	98.65	1440	93

(Source: Data from DPMs)

The reasons for the slow progress in immunisation in the districts of Malappuram and Wayanad as stated by the DPMs included reckoning of vaccination by some communities as anti-religious, impact of anti-vaccination lobby such as Naturopathy, propaganda against immunisation through social media and fear of immunisation. Audit observed that the failure of GOK to successfully overcome public resistance to vaccination resulted in a setback to the success of childhood immunisation programmes as envisaged under NHM.

Recommendation 2.4: GOK must strengthen dissemination activities to spread awareness of the necessity of immunisation amongst such communities.

2.12 Infrastructure and manpower

As per the Indian Public Health Standards, 2012 (IPHS) certain essential/ desirable services at Sub-Centres/PHCs/CHCs/THs/THQHs and DHs are to be provided so as to ensure availability of uniform standards of services and infrastructure to the public. Deficiencies in manpower have been pointed out in paragraph 2.8.3 of this report. Audit also noticed deficiencies in service delivery by Accredited Social Health Activists (ASHA), as discussed below.

2.12.1 Functioning of Accredited Social Health Activist

The NHM framework required Accredited Social Health Activists (ASHAs) to reinforce community action for universal immunisation, safe delivery, newborn care, prevention of water-borne and other communicable diseases, nutrition and sanitation. Each ASHA was to be equipped with a kit to provide the rural population with immediate and easy access to essential health supplies like Oral Rehydration Salts (ORS), contraceptives and a set of 10 basic drugs, besides a health communication kit and other IEC materials.

As per approved norms, one ASHA was to be provided for every 1,000 population at village level and all ASHAs were to undergo series of training sessions to acquire the necessary knowledge, skills and confidence for performing their spelt out roles.

- Audit observed that against the requirement of 32,854 ASHAs in the State, only 25,680 were available resulting in shortage of 7,174 ASHAs. In the test-checked districts, against the target of 9,924 ASHAs, there

[29] In respect of Wayanad, the District Medical Officer, Wayanad while confirming the figures stated that achievement exceeded target since children from neighbouring two States and districts availed immunisation service from that district.

was shortage of 1,683 ASHAs. The shortfall against target was highest in Thrissur (24 *per cent*) while in Wayanad, Malappuram and Alappuzha, it was 20, 17 and 7 *per cent* respectively.

Table 2.11: Availability of ASHAs and details of training imparted in selected districts

District	No. of ASHA			Training imparted		
	Target	Available	Shortage	Available	Trained	Shortage
Wayanad	835	669	166	669	666	3
Malappuram	3900	3228	672	3228	2478	750
Thrissur	2889	2209	680	2209	1800	409
Alappuzha	2300	2135	165	2135	2035	100

(Source: Data from State Health Society)

NHM replied (September 2017) that revamping of the programme was going on with ward based redistribution of ASHAs and that new ASHAs would be nominated once the process was completed. The reply was not acceptable as the department was well aware of the shortage of ASHAs and as such, the process to nominate new ASHAs could have been initiated well in advance, to avoid further delay.

- Audit observed that the project for supply of ASHA kits was implemented by NHM in 2008-09 and in 2013-14 only. ASHA kits comprising of essential drugs and consumables, meant to be distributed free of cost to the beneficiaries in the field were not replenished from time to time. In the 32 test-checked Sub-Centres in four districts, no ASHA kits were replenished since 2013-14.

  On enquiry it was stated (September 2017) by SHS that approval from GOI was not received to replenish ASHA kits since 2013 and that GOI directed in the Record of Proceedings (ROP) of 2016-17 to replenish them from existing health facilities.

2.12.2 Deficiencies in infrastructure in health centres

2.12.2.1 Non-conducting of baseline survey

As per paragraph 81 of the NHM Framework, in order to enable the District Health Mission to take up the exercise of comprehensive district planning, a household and facility survey of Sub-Centre/PHC/CHC/Sub-Divisional/DHs was to be conducted, which would act as the baseline for the Mission. This exercise was to be taken up at regular intervals to assess the progress under the Mission. Mention was also made in the C&AG's Audit Report, 2009 that though facility survey was conducted in all CHCs during September to December 2006, no such survey was conducted in any of the PHCs and Sub-Centres in the State.

NHM confirmed (October 2017) that it did not conduct any baseline survey after 2006. Audit observed that in the absence of baseline survey, NHM neither possessed inputs to monitor the progress in imparting health care nor placed itself in a position to access details of improvement, which came about due to the investments made under the scheme.

2.12.2.2 Status of Civil works

The physical status as on 31 March 2017, of 212 works relating to construction of health institutions, training centres and staff quarters sanctioned during 2012-15 is given in **Table 2.12**.

Table 2.12: Status of Civil Works

Year	No. of works sanctioned	No. of works completed	No. of works in progress	No. of works not started due to non-availability of land	No. of works not started due to other reasons
2012	84	83	Nil	Nil	1
2013	117	106	Nil	7	4
2014	4	Nil	3	Nil	1
2015	7	4	1	Nil	2
Total	**212**	**193**	**4**	**7**	**8**

(Source: Data from SHS)

Audit observed that 15 works could not be taken up for construction, out of which, seven works could not be taken up due to non-availability of land and eight due to other reasons.

Shortfall in setting up of Sub-Centres, PHCs and CHCs have been mentioned in paragraph 2.8.3 of this report. Many of the test-checked institutions lacked in essential facilities like electricity, drinking water facility, toilet, road accessibility, equipment like Cardiogram, X-Ray, Lab service, etc. (**Appendix 2.6**).

Details of buildings idling after completion/incomplete works are indicated below.

- **Training Centre in the premises of TB Hospital, Manjeri**

  Even after the lapse of 48 months since handing over of the building (August 2013) to NHM, the building was idling due to lack of manpower and infrastructure. Training activities were being conducted in rented buildings and an amount of ₹1.86 lakh was incurred towards rent from 2013-14 to 2016-17 alone. Proposal submitted by District Medical Officer, Malappuram in April 2017 was for an additional post of a watchman, with no requisition for administrative staff. The proposal was not approved by GOK (September 2017).

- **Maternity Block at CHC, Edappal**

  The Maternity Block building was idling for more than two years for want of sufficient equipment and furniture and posting of electrical and cleaning staff. GOK stated (November 2017) that proposal for supply of equipment would be included in the supplementary PIP for 2017-18.

- **Maternal and Child Health (MCH) Block in CHC Fort, Thiruvananthapuram**

  The building could not be put to use due to objection raised (June 2016) by the Chief Town Planner, Thiruvananthapuram that the elevation of the building was not as per the norms prescribed under heritage zone. Besides, the building plan was not approved before commencement of work.

- **W&C Block at District Hospital, Tirur**

  Deviation on civil works necessitated due to site condition. Lack of proper planning as per CPWD specifications and preparation of project estimate without studying the site condition resulted in the increase of project cost by more than 20 *per cent*. The work, which was scheduled for completion by November 2016 with a project cost of ₹ five crore, could not be completed till September 2017.

- **Construction of MCH Block at THQ Hospital Chengannur**

  As the progress of work was very slow, the consultant terminated the contract on 27 May 2015 after forfeiting the Performance Guarantee of ₹40.42 lakh. Work was re-tendered and the lowest amount quoted by another contractor for an amount of ₹1,030.52 lakh was accepted by the Technical Committee in January 2016 with a time of completion of one year. The additional liability consequent on revision of estimate due to termination of work by the first contractor was avoidable, had the agreement included a conditional risk and cost clause to make good any loss, in case of termination of work.

- **Construction of Staff Quarters at DH Mananthavady**

  During the course of execution of work, the Kerala Police raised objection stating that a part of the land belonged to their department. The dispute was yet to be resolved (September 2017). Failure of SHM in proper planning and ensuring hindrance free land led to inability to complete the staff quarters and infructuous payment of ₹36.89 lakh to the consultant.

2.12.3 Shortage in blood bank/blood storage

As per IPHS and report on Standardisation of Medical Institutions in Kerala, blood storage is an essential requirement in CHCs/TH/THQHs and blood banks, in District hospitals. Audit noticed 11 out of 33 medical institutions (CHC/TH/DH/GH/W&C) functioning without blood storage/blood bank, available blood storage facilities remaining non-functional due to failure to obtain licence, blood banks functioning without licence from the Drugs Controller and Licensing Authority and institutions offering blood storage facilities instead of the stipulated full-fledged blood bank (**Appendix 2.7**).

GOK stated (November 2017) that blood storage units were made available at THQHs Kodungallur and Vythiri. Audit was also informed that action was initiated in four hospitals[30] to obtain licence. In two hospitals[31] it was stated that Blood storage units were functioning in place of Blood banks. In respect of GH, Alappuzha, it was stated that the nearby MCH had the facility of blood bank. The reply was not acceptable as IPHS stipulate that hospitals falling under the category DH and above, should invariably be equipped with blood banks. In respect of other two hospitals[32] it was stated that they did not have delivery facility and hence blood storage units were not provided. The reply was not

[30] THQHs Tirurangadi and Sulthan Bathery, W&C Alappuzha and CHC Meenangadi.
[31] GH Kalpetta and DH Mavelikkara.
[32] THs Pudukkad and Thuravoor.

acceptable as the provision of blood storage was not based solely on the availability of delivery facilities in the institution.

2.12.4 Ambulance service

As per IPHS guidelines, referral transport facility was to be made available at each PHC. However, ambulances were available only in 54 out of 848 PHCs and 58 out of 232 CHCs across the State. Thus, 94 *per cent* of PHCs and 75 *per cent* of CHCs did not possess ambulances. Status of availability of ambulances in the four test-checked districts to transport patients to referral centres is presented in **Table 2.13**.

Table 2.13: Availability of ambulances

Name of the district	Total number of PHCs	Number of PHCs provided with ambulances	Total number of CHCs	Number of CHCs provided with ambulances
Alappuzha	59	1	16	2
Malappuram	84	0	22	1
Wayanad	23	3	9	5
Thrissur	79	3	24	5

(Source: Data from DHS)

Government replied (November 2017) that 50 ambulances were procured for functioning as '108 Ambulances'. The reply was not acceptable as '108 Ambulances' were utilised for management of emergencies of serious concern like road accidents, health related problems, etc., and not to cater to the needs of PHCs/CHCs.

2.12.5 Idling of equipment

Audit observed that in 19 institutions in the test-checked districts, equipment worth ₹0.98 crore were idling for various reasons such as non-availability of infrastructure/space/manpower, non-requirement of equipment, etc., as shown in **Appendix 2.8**.

Government stated (November 2017) that action will be taken to utilise the equipment.

2.12.6 Non-availability of laboratory services

As per IPHS, the status (March 2017) of availability of laboratories in the test-checked health institutions and the services rendered by them are shown in **Table 2.14**.

Table 2.14: Availability of Laboratories

Health institution	Test-checked number of institutions	Non-availability of laboratory	Required number of laboratory tests	Non-availability of tests
PHC	32	17	11	2 – 9
CHC	16	Nil	36	9 – 27
TH/THQH	8	Nil	51	11 – 34
DH	4	Nil	97	51 – 66

(Source: Data collected from test-checked institutions)

Audit observed severe shortfall in laboratory services provided by TH/THQHs/CHCs/DHs in the test-checked four districts (**Appendix 2.9**).

The institutions cited inadequate infrastructure and shortage in space, manpower, reagents, etc., as reasons for the non-availability of laboratory and laboratory services. The reply was not acceptable as laboratory services were essential in the process of diagnosis and hence, adequate proposals were to be projected in the Programme Implementation Plans to overcome shortage of space, infrastructure and equipment.

2.12.7 Safety measures in X-ray centres

Atomic Energy Regulatory Board (AERB) guidelines (August 2004) on licensing of X–ray units provided for issuing licence for operating radiation installations after inspecting the working practices being followed, to ensure adherence to prescribed safety standards, availability of appropriate radiation monitors and dosimetry devices for purposes of radiation surveillance, etc. In Kerala, the Director of Radiation Safety (DRS) is the authorised agency to issue licences on behalf of AERB.

Audit noticed that 15 out of 32 hospitals test-checked offered X–ray services. However, in 10[33] out of 15 hospitals, X–ray machines were operated without obtaining Certificate of Safety from DRS and 10 equipment in seven[34] hospitals were being utilised without conducting the quality tests as shown in **Appendix 2.10**.

Audit noticed that the technicians manning the X–ray units in five[35] hospitals were not provided with Thermoluminescent Dosimeter (TLD) badges to indicate levels of exposure to radiation. In the absence of TLD badges and safety certification from the DRS, Audit could not obtain reasonable assurance that patients and technicians were not being exposed to more than permissible radiation levels.

DPMs, Thrissur, Malappuram and Wayanad replied (August 2017) that action was being taken to obtain AERB licences and necessary arrangements were made for conducting quality assurance test. District Medical Officer (DMO), Thrissur replied (August 2017) that necessary directions for obtaining AERB registration were forwarded to peripheral institutions.

NHM stated (September 2017) that AERB registration and purchase of TLD badges was to be done by the hospital authorities concerned and quality assurance tests of radiological equipment were being conducted by NHM as per request of hospitals. Unrestrained exposure of patients and technicians to more than permissible levels of radiation would pose serious health risks. GOK stated that NHM was preparing a proposal in supplementary PIP 2017-18 for obtaining funds for taking AERB licence for all radiological equipment at all the Government hospitals.

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[33] GH Kalpetta, DH Mavelikkara, DH Wadakkancherry, DH Tirur, DH Mananthavady, THQH Kayamkulam, THQH Ponnani, THQH Tirurangadi, THQH Sulthan Bathery and CHC Muthukulam.

[34] DH Mavelikkara, DH Wadakkancherry, THQH Kayamkulam, THQH Kodungallur, THQH Tirurangadi, THQH Sulthan Bathery and CHC Muthukulam.

[35] DH Mavelikkara, THQH Kayamkulam, THQH Kodungallur, CHC Muthukulam and THQH Tirurangadi.

2.12.8 Compliance to Quality Assurance Guidelines

The Public Health Operational Guidelines for Quality Assurance, 2013 (Quality Assurance guidelines) envisaged that the health facilities were not only to provide full range of services which are committed in the National Health Programmes but also to ensure that the services meet verifiable and objective quality standards. The Quality Assurance guidelines recommended to create State Quality Assurance Committee (SQAC), District Quality Assurance Committee (DQAC), District Quality Assurance Teams (DQAT) at District Hospitals and Facility Level Quality teams for strengthening quality assurance activities at various levels.

Audit noticed that though SQAC and DQACs were formed, DQAT and Facility Level Quality teams were not constituted in all institutions. In the test-checked eight General/District Hospitals and eight Taluk Hospitals, QAT was not formed in three General/District Hospitals and four Taluk Hospitals. Further, Facility Level QATs were not formed in 11 CHCs and 24 PHCs. In the absence of such QATs, internal assessment of quality activities, preparation of key performance indicators, patient satisfaction surveys, identification of gaps and improvement, follow-up actions etc., were not being done.

2.13 Financial Management

2.13.1 Short release of funds to High Priority Districts

To ensure equitable health care and to bring about sharper improvements in health outcomes, the bottom 25 *per cent* of the districts in every State, on the basis of outcome indicators covering the three areas of Maternal health, Child health and family planning were identified as High Priority Districts (HPD). GOI identified (July 2013) three districts *viz.*, Kasaragod, Malappuram and Palakkad as HPDs in the State. It was also conveyed to the States that HPDs must, within the overall State Resource Envelope[36] under NHM, receive at least 30 *per cent* more budget per capita as compared to the other districts. It was emphasised that diversion of this envelope to other districts would not be permitted.

Audit analysed the average annual assistance received by 11 non-HPDs during 2013-17. Audit noticed that there was short release of ₹86.40 crore to the three HPDs during 2013-17 as detailed in **Table 2.15**.

[36] Financial resources that are expected to be made available under various components.

Table 2.15: Shortage of funds allotted to High Priority Districts

(₹ in crore)

Year	2013-14	2014-15	2015-16	2016-17	Total
Total allotment to 11 non-high priority districts	181.59	181.53	305.50	209.59	
Average of 11 such districts	16.51	16.50	27.77	19.05	
Amount due adding 30 *per cent* of average to each HPD	21.46	21.45	36.10	24.77	
Amount allotted to Kasaragod	16.39	12.22	12.19	10.72	
Amount allotted to Malappuram	24.44	20.98	21.99	25.77	
Amount allotted to Palakkad	20.06	19.92	18.34	21.92	
Shortage of funds to Kasaragod	5.07	9.23	23.91	14.05	**52.26**
Shortage of funds to Malappuram	-2.98	0.47	14.11	-1.00	**10.60**
Shortage of funds to Palakkad	1.40	1.53	17.76	2.85	**23.54**
Total short release of funds					**86.40**

(Source: State Health Society data)

NHM stated (October 2017) that the activities approved in the ROP were those based on proposals forwarded by the districts and that the districts implemented the approved proposals. It was stated that since the demand from the districts were usually provided, the question of additional funds over and above their usual necessity did not arise. The reply was not correct since GOI during the years 2012-17 accorded approval to only 67 *per cent* of the PIPs forwarded by GOK. Thus, against the PIP of ₹4014.75 crore[37], approval was accorded by GOI for only ₹2673.07 crore. It was, therefore, clear that the districts did not obtain the amount sought for in their plan proposals. It was also mandatory for the GOK to comply with the GOI instructions and to allot additional resources to the three HPDs.

2.13.2 Janani Suraksha Yojana (JSY)

Janani Suraksha Yojana (JSY) is a safe motherhood intervention under the NHM being implemented (since 2005) with the objective of reducing maternal and neo-natal mortality by promoting institutional delivery among the pregnant women below poverty line. This scheme integrated cash assistance with delivery and post-delivery care. As per guidelines, the cash assistance of ₹700 under JSY was admissible only to mothers belonging to BPL families who hailed from rural areas and ₹600 to those from urban areas in Kerala, being a High Performing State. JSY guidelines required all payments including compensation amount for sterilisation wherever applicable, to be made in one instalment at the time of discharge from the hospital/health centre. The Auxiliary Nurse Midwives (ANM) and ASHA workers were to ensure disbursal of JSY cash assistance in time. The Guidelines recognised the district level Nodal Officer as the officer responsible for proper implementation of the JSY scheme.

- Audit observed that during 2012-17, 11.44 lakh beneficiaries across the State (47 *per cent*) and 33,782 (33 *per cent*) out of 1.01 lakh beneficiaries in the 15 selected institutions of the four selected districts were not paid the stipulated cash assistance as shown in **Table 2.16**.

[37] Including Supplementary proposal of ₹546.94 crore.

Table 2.16: Details of payment of cash assistance

Year	State			Selected institutions		
	Total number of institutional deliveries	Number of beneficiaries to whom cash assistance not paid	Percentage of non-disbursement	Total number of institutional deliveries	Number of beneficiaries to whom cash assistance not paid	Percentage of non-disbursement
2012-13	494504	236541	47.83	20601	11111	53.93
2013-14	496257	229922	46.33	23445	8572	36.56
2014-15	493636	231071	46.81	21959	4106	18.70
2015-16	480656	245295	51.03	18973	4696	24.75
2016-17	446123	201654	45.20	15937	5297	33.24
TOTAL	**2411176**	**1144483**	**47.46**	**100915**	**33782**	**33.47**

(Source: Data from State Health Society)

The reasons stated for non-disbursement of JSY assistance were patients not collecting money on discharge and non-furnishing of proper documents like JSY card, copy of bank pass book, ID proof, copy of discharge summary, etc. The reply was not acceptable since incentives were being paid to ASHA for assisting the beneficiaries. As such, availability of documents should have been ensured through ASHA.

- Government of India instructed (May 2013) that in Low Performing States (LPS), the financial assistance under JSY was to be made available to all women regardless of age and number of children, for delivery in Government/private accredited health facilities. Even though Kerala fell under the category of High Performing States where the facility could be extended only to BPL/SC/ST women, the State Mission Director (NHM) Kerala wrongly extended the facility (September 2013) to all women irrespective of age and number of children. Audit observed in the test-checked districts that the institutions were not maintaining separate records for APL and BPL women and JSY assistance was paid irrespective of the income factor.

  Government (November 2017) replied that on the basis of the observation in C&AG's All India Review Report, 2016 on NHM regarding ratification of grant of JSY assistance to all women irrespective of being BPL/SC/ST, directions were issued (May 2017) by GOK to continue with the payment of JSY assistance to all women who deliver in Government hospitals except those availing payward facilities. The reply was not acceptable as the C&AG's report brought to light the irregularity in deviating from the guidelines of JSY, a 100 *per cent* Centrally Sponsored Scheme, without ratification from the State and Central Government. Government admitted the facts in the Exit Conference (November 2017). Thus, laxity of ASHA workers resulted in failure to ensure that eligible beneficiaries obtained stipulated financial assistance. Orders of GOI were also violated, resulting in JSY cash assistance meant for BPL/SC/ST being wrongly extended to APL women as well.

2.13.3 Non-maintenance of records at PHC, Chethalayam

The Operational Guidelines for Financial Management of the National Health Mission (NHM) stipulated[38] that records like Cash book, Cheque Issue Register, Allotment/fund register, Bank Pass book, reconciliation statement vouchers, etc., should be maintained. The cash book should be updated on daily basis in case of PHC/CHC etc., and authenticated by the drawing/disbursing officer or any responsible officer authorised for the purpose. It was also stipulated that cash transactions should be made only for petty expenses.

All receipts, payments/disbursements should be entered in the cash book on the day of the payment itself. Cheque Issue Register should be maintained properly in respect of issue of every cheque. Audit noticed violation of these guidelines in PHC Chethalayam situated in Wayanad district.

Audit observed that the PHC maintained two accounts in State Bank of India, Sulthan Bathery branch to effect transactions of NHM. While one account was in the joint name of the Medical officer and the Block Panchayat President for transactions like Untied fund, Maintenance grant, Ward Health Sanitation Fund, etc., the second account was maintained in the name of Medical officer for all other schemes of NHM.

An amount of ₹19.59 lakh was transferred by the District Project Manager (DPM) to the PHC for the period from 01 April 2012 to 29 November 2014. However, Cash Book was available in the PHC only from 30 November 2014 with an opening balance of ₹37,685. Other essential registers like Fund register, Cheque Issue register, Statements of Expenditure, supporting vouchers, etc., were also not maintained by the PHC. Audit noticed that contrary to guidelines, the Medical Officer of PHC issued Cash cheques[39] for large amounts. All these cheques were drawn on the account, operated by the Medical Officer solely in his name.

As the Cash book and connected records were not maintained and since the Medical Officer drew sizeable amounts by way of cash cheques, the possibility of misappropriation of Government funds could not be ruled out.

NHM stated (October 2017) that consequent to audit findings, the PHC was directed (September 2017) to prepare the books of accounts and produce the supporting documents. As these directions were not complied with, the matter was reported by the NHM to the DMO and the District Collector who was the Chairman of the Executive Committee of the District Health and Welfare Society. GOK stated (November 2017) that DHS was directed to take necessary action in this regard.

2.13.4 Advances pending settlement

As per Chapter 6.9.1 of Operational guidelines for Financial Management, all advances should be settled within a maximum period of 90 days. Audit observed that contrary to the above guidelines, ₹83.74 lakh released during the period from 2010-11 to 2016-17 to various organisations/individuals involving nine

[38] Chapter 6 (Internal Controls) of the Operational Guidelines for Financial Management of the National Health Mission (NHM).

[39] Cash cheque No. 578486 dated 04.10.13 for ₹87,040, Cash cheque No. 350698 dated 03.03.2015 for ₹29,100 and Cash cheque No. 350699 dated 10.03.2015 for ₹25,000.

cases were still pending settlement. The advances were pending since 2010. Details of advances pending settlement are shown in **Appendix 2.11**. The SHM needs to take action to adjust these advances without further delays and fix responsibility for lack of action in this regard.

2.14 Non-compliance to mandatory disclosures

The yearly approval to the State's PIP, accorded by GOI contained certain conditionalities to be adhered to by the States and which were to be treated as non-negotiable. Audit observed that the State NHM did not make disclosures of four of the nine mandatory stipulations required by GOI (07 October 2017) in its website *www.arogyakeralam.gov.in* as shown in **Table 2.17**.

Table 2.17: Mandatory Disclosures

Sl. No.	Mandatory requirement as per ROP	Status as on 07 October 2017
1.	Facility wise service delivery data particularly on Outpatient Department (OPD), Inpatient Department (IPD), Institutional delivery, C-section, Major and minor surgeries etc., on Health Management Information System (HMIS).	While the OPD data upto November 2015 only, was available on the website the HMIS data was protected by user name and password. Thus, the information was not generally available.
2.	Patient transport ambulance and emergency response ambulances – total number of vehicles, types of vehicle, registration number of vehicles, service delivery data including clients served and kilometre logged on a monthly basis.	A copy of the list of vehicles with registration number and category was available. However, the data does not contain service delivery data including clients served and kilometre logged on monthly basis.
3.	All procurements including details of equipment in specified format.	The website exhibited the details of availability of equipment only without giving the procurement details.
4.	Supportive supervision plan and reports shall be part of mandatory disclosures. Block wise supervisory plan and reports should be uploaded on the website.	Available for only 12 institutions.

(Source: Website of NHM)

The NHM stated (October 2017) that the data till 2016 was uploaded and that they were in the process of updating the data and making it live in the portal. Audit examined the webpage on 17 October 2017 and observed that data with respect to Sl. No. 1 only was updated upto November 2016, while the other requirements were yet to be complied with by NHM. Government stated (November 2017) that facility-wise service delivery data on OPD, IPD, Institutional delivery, C-section, major/minor surgeries etc., was updated upto March 2017 and that the remaining data would be updated shortly.

2.15 Conclusion

The performance audit brought out deficiencies in providing Ante Natal Care, failure to test all pregnant women for HIV, inadequate health centres, delivery facilities not available at all institutions and inadequacies in infrastructure. There was also shortage of manpower and a rising trend in Caesarean sections in the State, which was a matter of concern. Deficiencies in delivery services under the Janani Shishu Suraksha Karyakram and Janani Suraksha Yojana were also noticed. Facilities for newborns were not available in many test-checked institutions. Deficiencies in Child Health Screening and Early Intervention

Services were also observed. The State did not release stipulated additional financial assistance of ₹86.40 crore to identified High Priority Districts of Kasaragod, Malappuram and Palakkad during 2013-17. Despite these identified deficiencies, the performance of the State was impressive in terms of exceeding the targets set under the UN Sustainable Development Goals of reduction in Infant Mortality Rate and Maternal Mortality Rate.