CHAPTER II

HEALTH AND FAMILY WELFARE DEPARTMENT

2.1 Performance audit on National Rural Health Mission

2.1.1 Introduction

Government of India (GoI) launched the National Rural Health Mission (NRHM) in April 2005 to provide accessible, affordable, accountable, effective and reliable health care facilities to the rural population. NRHM was aimed to help States to achieve goals set under NRHM framework for implementation during 2012-17 to reduce:

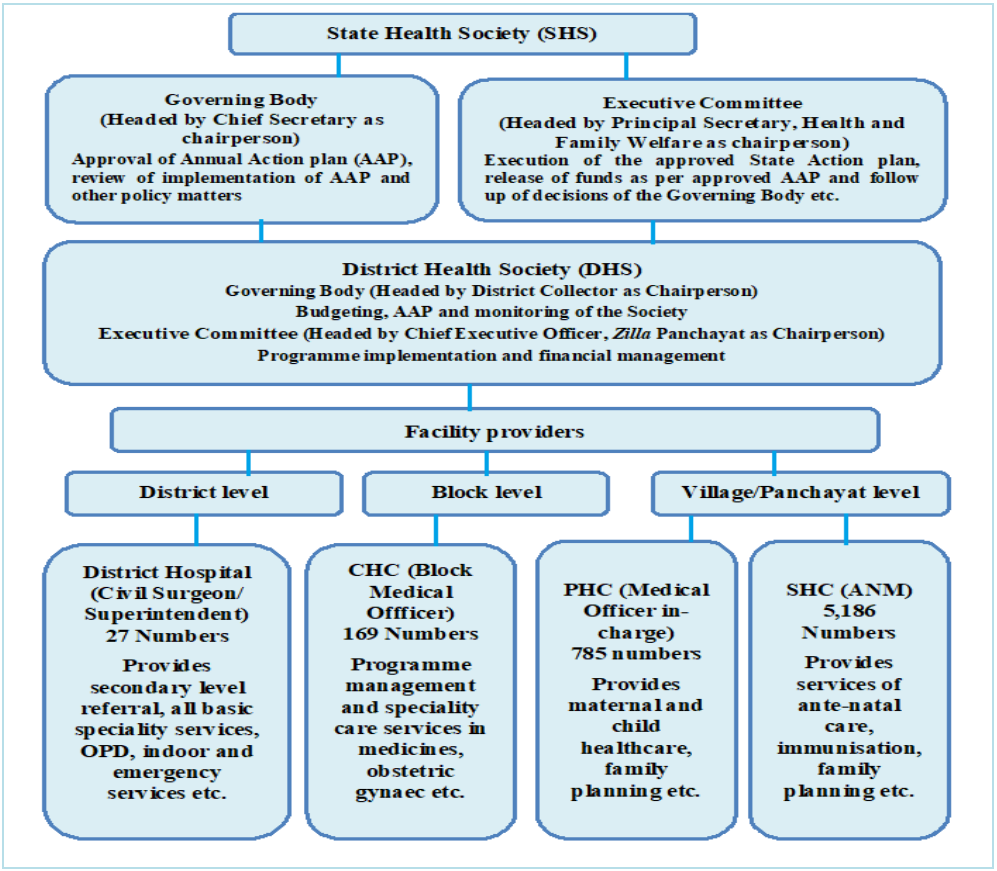
- Infant mortality rate (IMR) to less than 25 per 1,000 live births
- Maternal mortality rate (MMR) to 100 per lakh live births
- Total fertility rate (TFR) to 2.1 by 2017 and stabilising it.

The key strategy of the Mission was to bridge the gaps in health care facilities, facilitate decentralised planning in health sector, providing an umbrella to existing programmes of health and family welfare including reproductive and child health and various disease control programmes.

2.1.2 Organisational set up

NRHM is a mission mode programme carried out by State health society (SHS) as shown in **Chart 2.1.1** below:

Chart 2.1.1: Organisational chart



As on March 2017, there were 169 community health centres[1] (CHCs), 785 primary health centres[2] (PHCs) and 5,186 sub-health centres[3] (SHCs) functioning in the State for providing healthcare services to the rural population.

2.1.3 Audit objective

The objectives of performance audit were to assess the impact of NRHM on improving reproductive and child health in the State by test check of the:

- extent of availability of physical infrastructure;
- extent of availability of health care professionals; and
- quality of health care provided

2.1.4 Audit criteria

The audit criteria were derived from the following sources:

- NRHM framework for implementation 2005-12 and 2012-17
- NRHM operational guidelines for financial management
- Indian public health standards (IPHS) guidelines 2012 for SHCs, PHCs, CHCs and District Hospitals (DHs)
- Operational guidelines for quality assurance in public health facilities 2013 and
- Assessor's guidebooks for quality assurance in DHs 2013 and CHC (first referral unit) 2014

2.1.5 Scope and methodology

The PA on NRHM with special focus on reproductive and child health (RCH) for the period 2012-17 was conducted during April-July 2017 covering seven[4] out of 27 districts by sampling[5] method. In these sampled districts, seven DHSs, 14 CHCs (two from each district), 28 PHCs (four from each district with two under each CHC) and 84 SHCs (12 from each district with three under each PHC) were also selected by SRSWOR method. The details of districts and health centres selected are detailed in ***Appendix 2.1.1.***

Audit also scrutinised the records/ information collected from the office of the Mission Director and Directorate of health services to assess the overall position at the State. Apart from examination of documents, joint physical inspection of 133 health facilities, interview of 840 beneficiaries who had undergone child deliveries during 2014-17 (out of 16,383 registered beneficiaries under the selected SHCs) and cross verifications of records at various levels were also undertaken.

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1 For a population of 1.20 lakh in rural area and 0.80 lakh in tribal area, there should be one CHC with a minimum 30 bedded accommodation and one operation theatre. In addition to two regular Medical officers, there should be specialist services in surgery, gynaecology and paediatrics

2 For a population of 0.30 lakh in rural areas and 0.20 lakh in tribal areas, there should be one PHC with a minimum six bedded accommodation and one Medical officer

3 One SHC for a population of 5,000 in plain area and 3,000 for hilly and tribal area

4 Bilaspur, Jashpur, Kanker, Korea, Mahasamund, Raipur and Rajnandgaon

5 Adopting simple random sampling without replacement (SRSWOR) method, seven districts were selected, of which six (except Raipur) had rural population of more than 70 *per cent*. However, Raipur being part of selection by SRSWOR, and also the Capital district, is selected for examination.

An entry conference was held (April 2017) with the Principal Secretary (PS), Health and Family Welfare Department (Department), Government of Chhattisgarh, to discuss the objectives, scope and methodology of the performance audit. An exit conference was also held (March 2018) with the PS of the Department to discuss the audit findings. The views/replies of the Department have been suitably incorporated in the report.

Audit findings

2.1.6 Planning

The NRHM operational guidelines for financial management prescribe a bottom up approach to planning. Under this, block health action plan (BHAP) was to be prepared based on inputs from the implementing units (CHCs, PHCs and SHCs). The BHAPs would then be aggregated to form District health action plan (DHAP) which would be further aggregated at State level to form the State programme implementation plan (PIP). The State PIP is to be submitted to GoI by 31 December to facilitate approval of the plan by 28 February.

Audit observed that the State Government prepared the PIP on the basis of BHAP and DHAP. However, State PIP was submitted to GoI with a delay of 44 to 137 days on grounds of issue of revised guidelines/ instructions by GoI, addition of new components and formats by the Department, preparation of revised PIP and getting approval of governing body etc. Consequently, the approval of GoI was received with a delay of 85 to 224 days which resulted in delay in execution of new works such as appointment of human resources, new construction works and procurement of equipment etc., as commented in paragraph 2.1.8.1 (iv), 2.1.9.3, 2.1.9.6. Had the process of preparation of PIP been properly planned (i.e., the additional components/ formats been planned in the beginning etc.), the delays could have been avoided.

2.1.7 Financial management

2.1.7.1 Public spending on healthcare (NRHM and State budget)

At the national level, NRHM envisaged increasing public spending on health, with a focus on primary healthcare, from 0.9 *per cent* of gross domestic product (GDP) in 2004-05 to 2-3 *per cent* of the GDP by 2012, while the states were required to increase their spending on health sector by at least 10 *per cent* year on year (YOY) basis.

The public spending at national level was 1.05 to 1.18 *per cent* of GDP[6] during 2013-17. Although the State expenditure on public health increased by eight to 28 *per cent* during the period 2012-17, public spending on health remained at 0.85 to 1.13 *per cent* of gross State domestic product (GSDP[7]).

2.1.7.2 Fund allocation and expenditure

The resource envelope (RE) under NRHM for a financial year consists of (a) unspent balances of the previous years; (b) proposed allocation i.e., budgetary estimates (BE); and (c) State share contribution due for the year which was in the ratio of 75:25 during 2012-15 and 60:40 during 2015-17. Till 2013-14, GoI transferred its annual share based on the approved PIP directly

[6] Source: Ministry of Statistics and Programme Implementation, GoI.
[7] Source: Directorate of Economics and Statistics of Chhattisgarh State.

to the SHS, with the State Government transferring its share separately. The RE was to be supplemented by funds released by the State Government from its budget. From 2014-15 onwards, GoI share is released to the State Government, which thereafter, transfers its share along with the GoI share, to the SHS.

The receipt and expenditure under NRHM during 2012-17 is shown in **Table 2.1.1** below:

Table 2.1.1: Receipts and expenditure under NRHM

(₹in crore)

Year	PIP approved by GoI	Opening balance	Receipts		Interest & other receipts*	Total fund available	Expenditure/ refund/ adjustment	Closing balance
			GOI	State				
2012-13	858.75	455.63	214.07	135.00	33.39	838.08	391.23(47)	446.85
2013-14#	887.03	462.10	250.53	133.94	43.17	889.74	502.61 (56)	387.13
2014-15	797.22	387.13	306.29	158.23	45.73	897.39	555.97 (62)	341.42
2015-16	947.10	341.42	294.19	275.26	57.90	968.77	672.04 (69)	296.73
2016-17	971.47	296.73	355.27	356.40	93.54	1,101.93	802.34(73)	299.60
Total	**4,461.58**		**1,420.34**	**1,058.84**	**273.73**		**2,924.19**	

(Source: Information provided by SHS)

**Includes other grants received under emergency medical response system and mitanin[8] (ASHA) incentive States share.*

#Figures of non-communicable disease were also merged in the FY 2013-14 as the grants were received by the Directorate of Health Services and funds were received under NRHM from 2013-14. Hence there is a change in opening balance of 2013-14 from closing balance of 2012-13

NRHM intervention (₹ 2,924.19 crore) was 34.19 *per cent* of the total expenditure (₹ 8,552.66 crore) of the State Government under Health and Family Welfare Department during 2012-17.

Of the total allocation of funds for intervention through NRHM, the approved outlay and expenditure under the major components such as RCH flexible pool[9], NRHM flexible pool[10] and immunisation programme is depicted in **Table 2.1.2:**

Table 2.1.2: Funds provided and expenditure incurred under RCH, NRHM flexible pool and immunisation during 2012-17

(₹in crore)

Year	ROP[11]	Opening balance	Grant received			Interest/ other receipts	Total	Expenditure (percentage to ROP)	Closing balance
			Total[12]	GoI	State				
2012-13	654.83	184.97	485.49	201.85	283.64	-	670.46	363.03 (55)	307.43
2013-14	669.05	307.43	428.05	231.46	196.59	-	735.47	466.64 (70)	268.83
2014-15	610.70	268.83	440.35	271.06	169.29	62.79	771.97	519.66 (85)	252.31
2015-16	753.36	252.31	576.09	283.76	292.33	7.60	836.00	601.27 (80)	234.73
2016-17	769.21	234.73	625.64	338.96	286.68	10.55	870.92	696.75 (91)	174.17
Total	**3,457.15**		**2,555.62**	**1,327.08**	**1,228.54**	**80.94**		**2,647.35[13]**	

(Source: Data provided by SHS)

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8 Accredited social health activist (ASHA) is known as *Mitanin* in the State.

9 RCH flexible pool includes funds for RCH related components such as maternal health, child health, family planning, *Janani Suraksha Yojana*, compensation for sterilisation etc.

10 NRHM flexible pool includes additional activities such as for ASHAs, *Jeevan Deep Samiti*, Untied Fund, annual maintenance grants etc., essential for health activities which cannot be funded from any other programme are funded from this fund.

11 Record of proceedings (ROP) is approval given by the GoI on the State PIP.

12 OB comprises of committed expenditure of previous year and uncommitted balance. The ROP includes uncommitted balance of OB. Hence, ROP is at variance to OB plus total grants besides short release of fund vis-à-vis the approved PIP for the year.

13 Included ₹ 411.76 crore for construction, ₹ 127.32 crore on drugs and ₹ 6.04 crore on equipment.

The short receipt of funds vis-a-vis the ROP were mainly due failure of the SHS to spend the allotted fund which resulted from non-procurement of drugs and equipment (**paragraph 2.1.9.6 and 2.1.9.8**), incomplete construction activities (**paragraph 2.1.9.3**), less routine immunisation (**paragraph 2.1.10.4**), inadequate recruitment of human resources (**paragraph 2.1.8**), less expenditure under female sterilisation (**paragraph 2.1.10.5**) and trainings etc. This impaired the aim of the Mission to deliver uninterrupted and quality healthcare to the beneficiaries as discussed in subsequent paragraphs. As a result of under-spending and short allocation vis-à-vis ROP, the intervention of NRHM on these components ranged between 55 and 91 *per cent* of approved PIP during 2012-17.

In the exit conference (March 2018), the PS stated that the savings were due to large opening balance in 2011-12 and non-availability of human resources and expenditure on infrastructure was adjusted in subsequent years.

The reply is not correct as the savings were due to failure of the SHS to spend the grants on the approved works during the concerned years as mentioned above which is reflected in the form of CB for the current year and OB in the next plan year.

2.1.8 Human resource management

2.1.8.1 Non-availability of healthcare professionals

The position of deployment of manpower *vis-a-vis* sanctioned by the State Government and IPH standards in health centres (DHs, CHCs, PHCs and SHCs) is given in **Table 2.1.3.**

Table 2.1.3: Availability of doctors and paramedical staff in the State as on 31 March 2017

Health facilities	Cadre	Number of health centres	Manpower required as per IPHS for each health centre	Total Man power required as per IPHS	Posts sanctioned by the State Govern-ment	Person in position (as per Director of Health Services)	Shortage as per IPH standard (*per cent*)	Shortage vis a vis sanctioned post (*per cent*)
1	2	3	4	5	6	7	8	9
DHs	Specialists	26	15/18/36	420	391	102	318 (76)	289 (74)
	Medical officers		13/15/30	361	446	349	12 (3)	97 (22)
	Staff nurse		45/90/225	1,485	963	726	759 (51)	237 (25)
	Paramedical staff		30/41/99	882	800	719	163 (18)	81(10)
	Total		**103/162/390**[14]	**3,148**	**2,600**	**1,896**	**1,252(40)**	**704 (27)**
CHCs	Specialists	169	5	845	921	43	802 (95)	878 (95)
	Medical officers		3	507	427	380	127 (25)	47 (11)
	Staff nurse		10	1,690	1,570	1,125	565 (33)	445 (28)
	Paramedical staff		10[15]	1,690	819	664	1,026 (61)	155(19)
	Total		**28**	**4,732**	**3,737**	**2,212**	**2,520 (53)**	**1,525 (41)**
PHCs	Medical officers	785	1	785	767	328	457 (58)	439 (57)
	Staff nurse		3	2,355	1,070	527	1,828 (78)	543 (51)
	Paramedical staff		5	3,925	2,097	1,904	2,021 (51)	193 (9)
	Total		**9**	**7,065**	**3,934**	**2,759**	**4,306 (61)**	**1,175 (30)**
SHCs	ANM/health worker	5,186	**2**	**10,372**	**10,372**	**9,247**	**1,125(11)**	**1,125 (11)**

(Source: Director of Health Services)

[14] Sanctioned strength for 100 bedded-103 (22), 200 bedded-164 (3) and 500 bedded-390 (1)

[15] Pharmacist-1, laboratory technician-2, radiographer-1, ophthalmic assistant-1, dental assistant-1, cold chain and logistic assistant-1, multi rehabilitation community based health worker-1, councillor-1

The State was reeling under acute shortage of Specialists to the extent of 89 *per cent* and Medical officers to the extent of 36 *per cent*

To meet the gap of 1,602 doctors[16] (including Specialists) in 2012 which increased[17] to 1,744 during 2017, the Directorate of health services appointed 1,226 doctors in the post of MOs[18] during 2012-13 to 2017-18 (February 2018) but only 474 MOs (including 35 on contract basis) joined the Department as of February 2018. The reasons for reluctance of doctors to join the Department were not assessed by the Government. In addition, 1,637 staff nurses and paramedical staff were also appointed during 2016 and 2017 while approval of Finance Department was obtained (August 2018) for recruitment against 1,315 posts (208 MOs/ AMOs, 911 nurses and 196 other paramedical staff).

In the exit conference (March 2018), the PS of the Department admitted to the shortage of specialists and doctors and stated that steps were being taken to attract and retain healthcare professionals by providing best remuneration (up to ₹ 2.50 lakh per month) according to location. The PS also informed that walk in interviews are conducted every Monday to recruit doctors.

Audit reviewed the availability of doctors and paramedical staff in the sampled health centres as shown in table below and the following deficiencies were noticed:

Table: 2.1.4 Shortage of staff at State level and the selected health centres

Health facilities (number of health facilities)	Cadre (as per IPHS)	Shortage as per IPH standard (*per cent*)	Shortage vis a vis sanctioned post (*per cent*)	No. of health facilities test checked	Posts sanctioned by the State Government	PIP of the test checked units *	Shortage of staff as per IPHS (*per cent*)	Shortage of staff as per sanctioned strength (*per cent*)
State Position				**Selected health centers' position**				
DHs (26)	Specialists	318 (76)	289 (74)	**DH (7)**	101	58	53 (48)	43 (43)
	Medical officers	12 (3)	97 (22)		141	114	--	27 (19)
	Staff nurse	759 (51)	237 (25)		344	262	143 (35)	82 (24)
	Paramedical staff	163 (18)	81 (10)		151	101	138 (58)	50 (33)
	Total	**1,292(40)**	**704 (27)**		**737**	**535**	**322 (38)**	**202 (27)**
CHCs (169)	Specialists	802 (95)	878 (95)	**CHC (14)**	65	11	59 (84)	54 (83)
	Medical officers	127 (25)	47 (11)		38	59	--	--
	Staff nurse	565 (33)	445 (28)		140	113	27 (19)	27 (19)
	Paramedical staff	1,026 (61)	155 (19)		104	86	54 (39)	18 (17)
	Total	**2,520 (53)**	**1,525 (41)**		**347**	**269**	**123 (31)**	**78 (22)**
PHCs (785)	Medical officers	457 (58)	439 (57)	**PHC (28)**	28	9[19]	19 (68)	19 (68)
	Staff nurse	1,828 (78)	543 (51)		84	37	47 (56)	47 (56)
	Paramedical staff	2,021 (51)	193 (9)		96	91	49 (35)	5 (5)
	Total	**4,306 (61)**	**1,175 (30)**		**208**	**137**	**115 (46)**	**71 (34)**
SHCs (5,186)	ANM/ health worker	**1,125 (11)**	**1,125 (11)**	**SHC (84)**	**168**	**166**	**2(1)**	**2(1)**

**includes contractual appointments*

(i) District hospitals

In the seven sampled DHs, the shortage of specialists were in the major disciplines such as surgery (two), anesthesia (two), gynecology (one), ophthalmology (three), radiology (five), orthopedics (three), pathology (three), ENT (four) and dental (three). Resultantly, the patients were deprived of

[16] Total sanction of doctors (Specialists and MOs) in 2012-13 was 2,932 and working-1,330; Hence, shortage of doctors was1,602 in the State.
Total sanction of doctors (Specialists and MOs) in 2016-17 was 3,380 and working-1,636; Hence, shortage of doctors was 1,744.

[17] Due to net of sanction of additional posts, appointments made, retirement/ resignations etc.

[18] Specialists are appointed through promotion after fulfilling the required criteria.

[19] In PHCs, apart from MOs (MBBS), 32 AMOs/ RMAs (non MBBS) are posted against sanctioned posts of 30 AMOs.

necessary treatments for various illnesses and diagnostic services in these DHs and were referred to other hospitals (such as Dr. Bhim Rao Ambedkar Hospital, Raipur and Chhattisgarh Institute of Medical Sciences, Bilaspur etc.) with such facilities as observed from the indoor patient Department (IPD) registers.

There was huge shortage (37 *per cent*) of medical professionals

(ii) Community health centres

In the 14 sampled CHCs, only 70 medical professionals (63 *per cent*) were posted against the requirement of 112 medical professionals[20] whereas only 199 paramedical staffs (71 *per cent*) were deployed against the requirement of 280 paramedical[21] staff as shown in **Table 2.1.5.**

Table 2.1.5: Availability of medical and paramedical staff in test checked CHCs

Name of the post	Requirement as per IPHS norms	Sanctioned as per State Government	Person-in-position (regular plus contractual	Shortage (-) / Excess (+) as per IPHS	Shortage (-)/ excess (+) as per sanctioned strength
Specialists	70	65	11	- 59	- 54
Medical officers	42	38	59	+ 17	+ 21
Paramedical staff	280	244	199	- 81	- 45

(Source: data collected from CHCs)

As a result of the shortage of doctors/specialists, in 12 sampled CHCs, 817 women were referred to higher facilities during 2015-16 and 952 women in 2016-17. Further, in the test checked districts only 220 (2.3 *per cent*) out of 9,412 caesarian-section deliveries were conducted in nine CHCs (out of 47 CHCs) while in the 38 CHCs (in the sampled districts) no caesarian deliveries were conducted mainly due to non-availability of specialists such as gynecologists. Thus, desired healthcare services through these centres were compromised.

(iii) Primary health centres

As per IPH Standards, one doctor (Medical officer) and eight paramedical staff is required in each PHC.

Medical officers were not available in 68 *per cent* sampled PHCs

In the 28 test checked PHCs, Medical officers (MBBS) were not posted at 19 PHCs (68 *per cent*), while in 25 PHCs, 32 rural medical assistants/assistant Medical officers (Non-MBBS) were posted. Further, in the sampled PHCs, 128 paramedical staff were posted against the IPHS requirement of 224 staff. The details of staff available and shortage in the test checked PHCs are shown in **Table 2.1.6.**

Table 2.1.6: Medical and paramedical professionals at test checked PHCs

Name of the post	Requirement as per IPHS norms	Sanctioned as State Government per norms	Person-in-position (regular and contractual)	Shortage as per IPHS (percentage of shortage)	Shortage as per sanctioned strength
Medical officers	28	28	9	19 (68)	19
AMO/ RMA	-	30	32	--	+ 2
Paramedical staff	8[22]x28=224	180	128	96 (43)	52

(Source: data collected from PHCs)

[20] Anesthetist (1), Dental Surgeon (1), General Medical officer (2), General Surgeon (1), Obstetrician & Gynecologist (1), Pediatrician (1) and Physician (1).

[21] Paramedical- staff nurse (10), pharmacist, lab technician (2), radiographer, opthalmic assistant, dental assistant, cold chain and vaccine assistant, OT technician, multi rehabilitation worker, councillor.

[22] Medical officer-1, staff nurse-3, pharmacist-1, health worker male and female-1 each, lady health visitor-1, laboratory technician-1

Absence of Medical officers in 68 *per cent* of the sampled PHCs compounded with shortages of paramedical staff adversely affected the delivery of health services through these centres and forces the public to go to CHCs or DHs for treatments as the AMOs posted in the PHCs were permitted to treat and prescribe only limited number of diseases and drugs.

(iv) Sub health centres

IPHS provides for appointment of one auxiliary nurse midwifery (ANM) and one health worker (male) in each SHC.

In the 84 test checked SHCs, ANMs and health workers (male) were not posted in the three[23] and 14 SHCs respectively. Further, in 15[24] of the 84 SHCs, one extra ANM[25] were posted. Thus, in the absence of ANMs and health worker (male), the essential care for pregnant women, ANC, PNC check-up and assistance to carryout various health programmes were hampered.

The shortage of medical professionals was 15 *per cent* in DHs, 37 *per cent* in CHCs and 68 *per cent* in PHCs

Thus, there was shortage of 1,167 specialist doctors and 583 MOs in the State. In the sampled health centres, the shortage of medical professionals was 15 *per cent* in DHs, 37 *per cent* in CHCs and 68 *per cent* in PHCs. Similarly, the shortage of paramedical staff was 32 *per cent* at DHs, 29 and 43 *per cent* at CHCs and PHCs respectively. Shortage of medical professionals at all levels of health facilities led to denial of mandated health services at public health facilities. However, even where doctors were available[26], the patients were still deprived of necessary treatments for various illnesses and diagnostic services in these health centres due to shortages[27] of medical equipment, drugs and consumables, laboratory services **(also commented in paragraphs 2.1.9.6, 2.1.9.7 and 2.1.9.8)**, and were referred to other hospitals such as Dr. Bhim Rao Ambedkar Hospital, Raipur, Chhattisgarh Institute of Medical Sciences, Bilaspur etc., as observed from the indoor patient department (IPD) registers.

Further, in the State PIP, GoI sanctioned[28] appointment of 3,725 persons on contractual[29] basis. However, only 2,785[30] (74.76 *per cent*) persons could be appointed up to March 2017. Though every year, about 200 MBBS doctors are

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23 Komakhan, Kosrangi and Mangla

24 Asulkhar, Barvi, Birkondal, Bishunpur, Galonda, Gamhariya, Kelhari, Kere, Kewti, Kodabhat, Lokhandi, Makri Khauna, Pataud, Saraigahana and Vyaskongera

25 These are additional ANMs posted in the SHCs which are remotely located based on sanctions in the ROP. These extra ANMs conduct field work in those inaccebile areas.

26 Between 75 and 100 *per cent* in four out of seven sampled DHs, six out of 14 sampled CHCs and nine out of 28 sampled PHCs

27 Shortages of equipment were in the range of 27 to 41 *per cent* in DHs, 25 to 69 *per cent* in CHCs and 32 to 64 *per cent* in PHCs. Similarly, the shortage of drugs and consumables were in the range of 40 to 76 *per cent* in DHs, 52 to 75 *per cent* in CHCs and 45 to 67 *per cent* in PHCs and shortage of laboratory services was 45 to 63 *per cent* in DHs, 36 to 58 *per cent* in CHCs and 38 to 71 *per cent* in PHCs

28 In addition to the regular sanctioned set-up

29 For implementation of various health programmes under NRHM such as Rashtriya Bal Swasthya Karyakram (RBSK), Nutritional Rehabilitation Centre (NRC), Sick New Born Care Unit (SNCU), District Early Intervention Centre (DEIC), extra staff for 24x7 PHC and extra ANM in SHC with higher deliveries etc.

30 Medical officrs-163, Ayush doctor-59, staff nurse-515, ANM-1,123, paramedical staff-276 and other staff-649

produced by the State, yet in the absence of any concerted plan or policy to attract the fresh doctors to join the Health Department, the State continued to suffer from acute shortage of doctors in public sector. Thus, the support extended by GoI under the scheme could not be optimally utilised by the State to bridge the gaps.

In the exit conference (March 2018), the PS agreed with the Audit observation and stated that the State is trying to fill the vacancies of doctors by organising walk in interview.

Recommendation

The Department should prioritise the filling up of critical vacancies, especially those of specialist doctors and Medical officers and ensure availability of medical equipment, drugs, consumables, laboratory services so as to deliver the required health facilities at each level in line with the mandate of the Mission.

2.1.9 Physical infrastructure

2.1.9.1 Availability of health centres against IPHS norms

NRHM framework envisages service delivery by primary health care facilities (CHCs, PHCs and SHCs) based on population norms as per Indian Public Health Standards (IPHS). Scrutiny of records of SHS revealed shortage of health facilities in the State both as per IPHS norms and as determined by the State as shown in **Table 2.1.7:**

Table 2.1.7: Requirement of number of institutions at different level

Year	CHC			PHC			SHC		
	Requirement worked out by Department	Requirement[31] as per IPHS norms	Available (shortage *per cent*)	Requirement worked out by Department	Requirement as per IPHS norms	Available (shortage *per cent*)	Requirement worked out by Department	Requirement as per IPHS norms	Available (shortage *per cent*)
2012	200#	200	149 (26)	795#	795	755 (5)	5,043#	5,043	5,111 (26)
2017	200*	223	169 (24)	795*	884	785 (11)	5,043*	5,617	5,186 (8)

(Source: data provided by SHS, census and calculation by Audit)

 # Previously requirement worked out by the Department for CHC was 194, PHC-776 and SHC-4899

** The State has not calculated the requirement as per projected population for 2017.*

The State had shortage of 24 *per cent* CHCs, 11 *per cent* PHCs and eight *per cent* SHCs

Of the total shortages of CHCs, PHCs and SHCs in the State, the tribal areas[32] lacked 25 CHCs, 61 PHCs and 210 SHCs.

In the exit conference (March 2018), the PS stated that Government sanctions health institutions on population norms, topography and other factor like *Naxal* affected areas.

The reply is not convincing. Though the Department had followed the criteria

[31] As per IPHS norms, for a population of 1.20 lakh in rural area and 0.80 lakh in tribal area, there should be one CHC with a minimum 30 bedded accommodation and one operation theatre; for a population of 0.30 lakh in rural area and 0.20 lakh in tribal area, there should be one PHC with a minimum six bedded accommodation; and one SHC for a population of 5,000 in plain area and 3,000 for hilly and tribal area. The requirement has been calculated on the basis of census -2011 and projected population for 2017.

[32] Tribal areas are those which are notified as tribal area in the fifth Schedule. Against the requirement of 116 CHCs, 463 PHCs and 3,073 SHCs in Tribal areas, the availability of CHCs was 91, PHCs was 402 and SHCs was 2,863 respectively.

to work out the requirements of health centres, the sanctions were less vis-à-vis the IPHS/departmental requirements, particularly in the tribal areas for reasons not on record.

2.1.9.2 Location of health centres

IPHS norms stipulate that health centres should be centrally located and easily accessible to people and connected with all-weather motorable approach road. The norms also stipulate that a person should have access to a SHC within three kilometers (km) walking distance.

Audit visited the sampled health centres (14 CHCs, 28 PHCs and 84 SHCs) and observed that 13 (93 *per cent*) out of 14 CHCs were located at a distance of more than 30 km (30-90 km) from the farthest village. Likewise, four[33] out of 28 PHCs (14 *per cent*) were located at a distance of more than 30 km (35-50 km) from the remotest village and six[34] out of 28 PHCs (21 *per cent*) were not accessible by public transport. Further, 64 out of 84 SHCs (76 *per cent*) were located beyond three km from the remotest village while 37 out of 84 SHCs (44 *per cent*) were not accessible by public transport.

In the exit conference (March 2018), the PS stated that the health centres are established on the basis of population but due to non-availability of Government land, some of the SHCs are situated at more than three km from the farthest village. It was also stated that CHCs are established in the block headquarters and hence covers large distance.

Fact remains that failure to establish health centres within permissible distance stipulated under IPHS defeated the purpose of providing accessible health centres to the rural population.

2.1.9.3 Construction of health centres

NRHM aims to bridge the gaps in the existing capacity of the rural health infrastructure by establishing functional health facilities through revitalisation of the existing physical infrastructure such as health centres and new constructions or renovation, wherever required.

Chhattisgarh Medical Services Corporation Limited (Corporation) was set up in October 2010 (functional from May 2013) by the State Government for construction and renovation of health infrastructure facilities in the State. The Corporation is also responsible for procurement of drugs. In addition, the renovation/upgradation works were also awarded to Public Works Department, Rural Engineering Services besides the Corporation by the State Health Society (SHS). The construction activities are discussed below:

2.1.9.3 (i) Construction of new health facilities

There was shortage of 20 CHC, 88 PHC and 768 SHC Government designated buildings in the State

Audit noticed that 20 CHCs, 88 PHCs, 768 SHCs did not have designated Government buildings and were operational from private buildings, *panchayat* buildings, other Government buildings etc., as of March 2017. Due to unspecified design these buildings lacked space, infrastructure, delivery service, outdoor patient Department (OPD) facilities, labour rooms, beds, water connectivity, toilets etc. as was noticed in the test checked health

[33] Kelhari, Nagar, Pandadah and Pharphaud.

[34] Asta, Bodsara, Ghaghra, Hardikala, Hathibahra and Hatkarra.

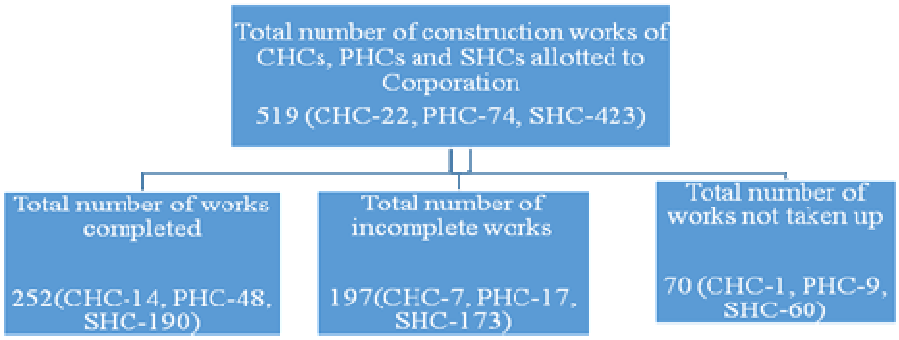
facilities. Resultantly, the mandated healthcare services could not be delivered as discussed under:

(a) State position

Director of Health Services and the SHS awarded (2012-17) construction of 519 health facilities (CHC/PHC/SHC) to the Corporation at a cost of ₹ 187.69 crore in the State. Of these, the Corporation completed construction of 252 health facilities at a cost of ₹ 97.68 crore while 197 health facilities could not be completed as of June 2018. Of these incomplete works, 186 works sanctioned during 2012-16 on which expenditure of ₹ 14.06 crore was incurred, remained incomplete despite lapse of 20 to 56 months from the year of sanction. The reasons, as examined from the files in the test-checked districts were due to non-participation of bidders in the tender for works located in sensitive areas, receipt of tender values more than the amount of administrative approvals, delay in identification and finalisation of availability of land. Though the Department had taken steps for re-tendering, revised technical sanction (TS) etc., and had completed 36 works (included in 252 completed works), further efforts by resolving the bottlenecks (retendering against high tender premiums, ensuring availability of land etc.) to complete the pending works were yet to be taken by the Department. Thus, the expenditure incurred on these works remained unfruitful till date (March 2018).

Further, the Corporation could not take up construction of 70 health facilities till December 2017 on grounds of change of place, delay in tender process due to non-receipt of tenders, delay in finalisation of tenders due to receipt of higher rates etc. These works were sanctioned during 2012-16 and were pending for more than one to four years[35].The details are shown in the **Chart 2.1.2.**

Chart 2.1.2: Construction of health centres by the Corporation



(b) Position in the test checked districts

In the seven test checked districts, 150 health centres (seven CHCs, 26 PHCs and 117 SHCs) costing ₹ 56.33 crore were taken up for construction during 2012-17. Of these, 103 health centres (six CHCs, 20 PHCs and 77 SHCs) were completed at a cost of ₹ 40.90 crore while 32 health centres could not be completed till June 2018 despite incurring expenditure of

[35] Sanctioned during 2012-13-(7 nos.), 2013-14-(17 nos.) 2014-15-(12 nos.) and 2015-16-(34 nos.)

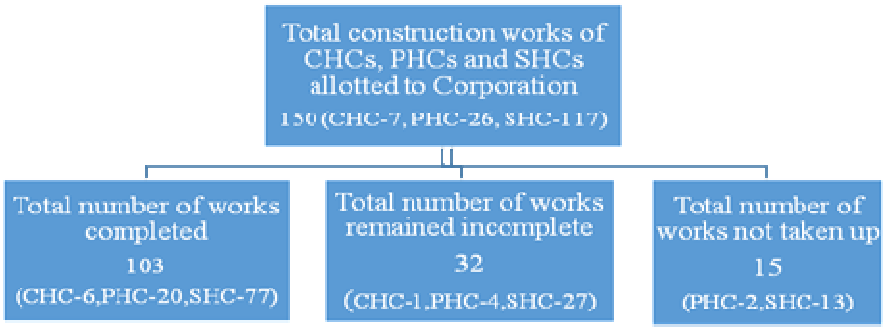
₹ 2.25 crore and delays between eight and 44 months from their completion dates. The major reasons for delays are shown in the **Table 2.1.8**.

Table 2.1.8: Reasons for delay in completion of Health centres in the test checked districts

Reasons for delay	Number of affected works
Delay in construction by contractors	6
Receipt of higher rate in tenders	1
Non availability of land or land dispute or hindrances	18
Non participation of tenderers and land problem	5
Delay in tendering process	2
Total incomplete works	**32**

The Department did not resolve the above project bottlenecks to complete the pending works of the health centres, especially ensuring the availability of land before commencement of the works as per Works Department manual. Further, the Corporation did not commence construction works of 15 health centres costing ₹ 4.31 crore till June 2018 on grounds of change in work sites, delays in providing layout, delays in finalising the tenders etc. The details are shown in the **Chart 2.1.3.**

Chart 2.1.3: Construction work of health centres sanctioned and undertaken by Corporation in the test checked districts



In the exit conference (March 2018), the PS agreed with the audit observations and stated that the major reason for delay was non-availability of land and non-receipt of adequate tenders in the *naxal* affected areas.

The reply is not acceptable, as construction was to be undertaken on Government land, and identification of such land before sanctioning the works is the responsibility of the Department. Further, the concerns of naxal problem was to be factored in before sanctioning the works and sending the PIP incorporating those works to GoI for approval.

2.1.9.3 (ii) Renovation of existing health facilities

During 2012-17, the Department sanctioned 295 renovation works of 10 bedded wards and labour rooms worth ₹ 50.82 crore in the State under NRHM. These works were allotted by the District Collectors to different construction agencies[36]. Of these, 254 works estimated at ₹ 44.12 crore were completed, eight works were incomplete after incurring expenditure of ₹ 1.36 crore, 22 works estimated at ₹ 3.78 crore were not taken up and 11 works were

[36] Public Works Department, Rural Engineering Services, Corporation etc. were selected by DC without any reasons on record.

cancelled/ surrendered. The main reasons for works remaining incomplete were construction delays by contractors, substandard works by contractors, cancellation of works and receipt of higher rate of tenders etc. The cancellations of works were due to location of work sites in sensitive areas, high cost of tenders, delays in selection of sites for construction of additional rooms of the 10 bedded wards etc.

In the seven test-checked districts, 111 renovation works were sanctioned for ₹ 19.65 crore during 2012-17. Of these, 93 works estimated at ₹ 16.61 crore were completed, eight works valued at ₹ 1.52 crore were not taken up on grounds of high cost of tenders, delays in selection of sites, inappropriate sites etc., eight works were cancelled and two works valued at ₹ 40 lakh remained incomplete.

In the exit conference (March 2018), the PS stated that the major reasons for delay was due to non-receipt of adequate tenders in the *naxal* affected areas.

The reply is not acceptable. Though contractors refrain from participating in the naxal-infested areas, these concerns should have been factored in before sanctioning the works in such areas and sending the PIP incorporating those works to GoI for approval. Failing to take up and complete the sanctioned works resulted in denial of required health infrastructure to the rural population.

2.1.9.4 Availability of staff quarters

There was shortage of 81 *per cent* residential quarters in DHs, 36 *per cent* in CHCs and 87 *per cent* in PHCs test checked

As per IPHS norms, availability of residential quarters near vicinity of health facility is required to make all the health facilities fully functional.

Scrutiny of sampled health facilities revealed shortage of 81 *per cent* residential quarters in seven DHs, 36 *per cent* in 14 CHCs and 87 *per cent* in 28 PHCs with respect to IPHS norms as shown in the **Table 2.1.9.** The availability of staff quarters was also short by 531 numbers with respect to persons in position.

Table 2.1.9: Staff quarters required and available in the test checked health centres

Health facility	Number of sampled health facilities	Staff quarters required as per sanctioned strength	PIP in the test checked health centres	Staff quarters required as per IPHS	Staff quarters available	Shortage of staff quarters as per IPHS norms
DH	7	737	535	881	166	715
CHC	14	347	197	266	171	95
PHC	28	238	176	336	45	291
SHC	84	84	84	84	79	5
Total	**133**	**1,406**	**992**	**1,567**	**461**	**1,106**

(Source: Data collected from the test checked health centres)

While shortages were not bridged, 22 quarters at CHCs and six quarters at PHCs remained vacant due to poor condition, lack of water and electric facility. Further, new staff quarters at CHC, Manendragarh and Bagbahra were not occupied due to failure of the Chief Medical and Health Officer (CMHO) to complete the water supply and electricity facility to these quarters as shown ahead.

 **(Date: 25/06/2017) Eight staff quarters constructed at Manendragarh at a cost of ₹ 68.47 lakh were lying unoccupied since their handing over in July and September 2016 due to remote area and lack of electricity, water and boundary wall.**	 **(Date:10/07/2017) Residential quarters at CHC Bagbahra lying vacant since October 2014 for want of electricity and water supply.**

Audit further observed that the root cause of shortages in the availability of staff quarters was failure of the Department to complete 159 quarters for medical and para-medical staff valued at ₹ 25.33 crore taken up during 2012-13 till March 2017. The major reasons for non-completion of these staff quarters was non participation of tenderers, naxal affected area and delay in availability of land for which the Department had not taken steps either to resolve the logjams or to fix accountability against the officials responsible for sanction of works in naxal areas without ensuring availability of land.

In the exit conference (March 2018), the PS *inter alia* stated that the construction works were earlier given to PWD but works not commenced by the PWD have now been transferred to the Corporation. The PS further stated that due to *naxal* area, non-receipt of tenders, non-availability of land, construction of some staff quarters were incomplete.

The reply is not acceptable. Though contractors reportedly refrain from participating in the naxal-infested areas, these concerns should have been factored in before sanctioning the works in such areas. Further, ensuring the availability of land is the responsibility of the Department. Moreover, the fact that shortage of staff quarters co-exists with idle quarters compound the problem, as the Department had not taken adequate measures to address the snags.

Recommendation

The Department should assess the gaps in availability of physical infrastructure and ensure that all civil works are completed at the earliest and address the project bottlenecks to put the completed buildings to use.

2.1.9.5 Quality of health infrastructure

As per IPHS, the State should establish one SHC for population of 3,000-5,000, one PHC for population of 20,000-30,000 and one CHC for population of 80,000-1,20,000. The violations noticed are discussed below:

(i) Quality of health infrastructure at sub-centres

During visit to 84 SHCs, Audit noticed that 50 SHCs had been providing health services to population of about 2,77,439. Of these, 29 SHCs were covering population of 5,000-10,000 and one SHC (Sardha) was covering

50 out of 84 sampled SHCs were covering population more than IPHS norms while all the 84 sampled SHCs had one or more infrastructural deficiencies

more than 10,000 population. Moreover, IPHS provide that the Medical officer of the PHC should visit each SHC in his/ her area once in a month not only to check the work of staff but also to provide curative service. However, 42 out of 84 SHCs were not visited by a doctor even once in a month due to which the medical services could not be made available to the public by the SHCs.

Further, IPHS guidelines also prohibit establishment of another health centre/ SHC where a PHC is already located to avoid wastage of human resources. In contravention, 11[37] SHCs were functioning either in PHC building or building adjoining to PHC due to which the staff of these SHCs perform the field work such as ANC registration and check-up, immunisation, home visit after delivery etc., and not involved in OPD service and delivery service. Resultantly, public were required to visit the PHCs to get the health services.

Thus, population norms for establishment of SHCs were not followed. Other major deficiencies in infrastructure at SHCs are summarised in **Table 2.1.10.**

Table 2.1.10: Major deficiencies in infrastructure in the test checked 84 SHCs

Sl. No	Deficiency	Number of SHCs	Percentage
1	No designated building	12[38]	14.29
2	No skilled birth attendant, trained ANM	58	69.05
3	No electricity supply	1[39]	1.19
4	No examination table	29	34.52
5	No functional toilet	16	19.05
6	No labour table	14	16.67
7	No compound wall	55	65.48
8	ANM quarter not available	12	14.29

(Source: Data collected from the test checked sub-health centres)

Absence of the above infrastructure denied the delivery service in the SHCs.

In the exit conference (March 2018), PS *inter alia* stated that the sanction of SHC / PHC is done as per population norms and more number of health centres are being sanctioned every year. The PS also stated that absence of functional toilet and labour tables etc., were due to non-availability of designated Government building, while the standard design of SHC did not provide for boundary walls. However, the PS assured to have these constructed in future.

The fact remains that Department could not get the desired number SHCs constructed or provide the other infrastructures as per IPHS norms due to which the public were deprived of the necessary health services at village level.

(ii) Quality of health infrastructure at PHCs

PHC is the first port of call to a qualified doctor of the public sector for the people in rural areas. As per IPHS norms, the PHCs should become functional for round the clock service with 24x7 nursing facilities. 24x7 PHC are health

[37] Bilaspur-Chapora, Hardikala Mahasamund-Birkoni, Hathibahara, Komakhan, Kanker-Kewti, Korea-Kelhari, Raipur-Farfoud, Manikchauri, Rajnandgaon-Mudhipar, Surgi

[38] Bilaspur- Chapora, Kanchanpur, Podi, Hardikala, Sardha, Mohda, Silpahri, Kanker-Baskund, Khadga, Raipur-Naara, Manikchauri, Rajnandgaon- Surgi.

[39] Korea- Bishunpur

centre where one Medical officer and at least three staff nurses are provided. Upgradation of PHCs as 24x7 PHCs was one of the goals of NRHM.

Against target of 492 PHCs, only 273 PHCs were upgraded to provide 24x7 services

Audit scrutiny revealed that 492 (62.68 *per cent*) out of 785 PHCs in the State were targeted for upgradation for rendering 24x7 services during 2012-17. However, only 273 PHCs (34.78 *per cent*) could be upgraded to function as 24x7 as of March 2017 while 219 PHCs could not be upgraded as a consequence of shortage of doctors and nurses.

During visit to 28 sampled PHCs in the test checked districts, the following deficiencies in infrastructure and facilities were noticed as shown in the **Table 2.1.11.**

Table 2.1.11: Major deficiencies noticed in the test checked 28 PHCs

Sl. No.	Infrastructure/ facility	Number of PHCs	Percentage of non-availability
1	Non- availability of medical termination of pregnancy (MTP[40]) service	28	100
2	Child care including immunisation not available	4	14.29
3	No laboratory service available (RBC, WBC, Bleeding time, clotting time etc.)	5	17.86
4	No emergency room available	21	75.00
5	No separate male and female ward available	8	28.57
6	No diet facility available under JSSK	8	28.57

(Source: Data collected from the test checked PHCs)

Of the 28 PHCs test checked, though 14 PHCs were upgraded to 24x7, MTP service was not available in any of the PHCs, child care and immunisation was not available in one PHC, emergency room in 11 PHCs and separate male and female wards in five PHCs were not available.

In the exit conference, the PS, while agreeing to the audit observation stated (March 2018) that due to shortage of doctors and nurses in the PHCs, the target of operationalising the 24x7 PHC was not achieved.

The reply is not acceptable as it is the responsibility of the Department to appoint doctors and nurses. Though efforts were made by the Department for appointment of doctors, staff nurses and other paramedical staff, the Department still could not fill up the critical vacancies in this regard as commented in **paragraph 2.1.8.1**, which prevented 24x7 PHC facilities. Further, the PS did not give any reply for shortage of infrastructure and non-availability of health services in the PHCs.

(iii) Quality of health infrastructure at CHCs

CHC is the secondary level of health care, designed to provide referral as well as specialist health care to the rural population. NRHM seeks to up-grade CHCs as first referral unit (FRUs), which would provide facilities for comprehensive management of all obstetric emergencies, caesarean sections and other surgical interventions, blood bank/ storage centre and management of all sick newborns.

Against target of 46 CHCs, only 28 CHCs could be upgraded as FRUs

Scrutiny revealed that 46 out of 169 CHCs in the State were targeted for upgradation to FRUs by SHS during 2012-17. Of these, only 28 CHCs could be upgraded as FRUs as of March 2017 and remaining 18 CHCs could not be

[40] MTP with manual vacuum aspiration (MVA) technique to be used at PHC

upgraded due to lack of doctors and specialists. Of the 169 CHCs in the State, C-section deliveries were conducted only in 24 CHCs, of which 92 *per cent* (22 CHCs) were FRUs.

In the test checked districts, 220 (2.3 *per cent*) out of total 9,412 C-section deliveries were conducted in the CHCs which were FRUs. This indicated that women had to depend mostly on district level hospitals for C-section deliveries as this facility was available only in four out of the 14 test checked CHCs.

During site visit to 14 sampled CHCs in seven test checked districts, Audit noticed lack of infrastructure and other facilities vis-a-vis the IPHS norms in these CHCs as summarised in **Table 2.1.12.**

Table 2.1.12: Facilities not available at 14 test checked CHCs

Sl. No.	Infrastructure/ facility	Number of CHCs	Percentage
1	Facility of surgery not available	10	71.43
2	Obstetrics and gynecology not available	9	64.29
3	No emergency services	5	35.71
4	Safe abortion service not available	4	28.57
5	No operation theatre	2	14.29
6	Operation theatre available but not in use	3	21.43
7	No new born stabilisation unit	1	7.14
8	No ultrasound facility available	13	92.86
9	Ultrasound facility available but not in use	1	7.14
10	No blood storage facility available	9	64.29

(Source: Data collected from the test checked CHCs)

In the exit conference (March 2018), the PS *inter alia* stated that operationalisation of FRU is dependent on availability of specialists (gynecologist and anesthetist) and other staff nurses, blood storage facilities. Due to shortage of doctors, the targeted number of CHCs could not be operationalised as FRUs. However, to provide caesarian section facilities, training of emergency obstetric care and life saving anesthesia skills training were being imparted to the Medical officers.

The reply is not acceptable as appointment of specialists, nurses, availability of blood storage and other facilities are the responsibility of the Department and failure to ensure these had prevented setting up of FRUs. Further, training in emergency obstetric care and life saving anesthesia would not be effective unless adequate infrastructure for conducting caesarian section deliveries are provided in the CHCs.

(iv) Quality of health infrastructure at district hospitals

District hospital (DH) is a secondary referral level for health care. During visit to seven DHs in the seven test-checked districts, Audit noticed lack of two-dimensional echo in six[41] DHs due to non-availability of trained Medical officer. Thus, the patients are deprived of the desired facility of cardiac checkup at these health centres and are referred to health facilities having such facilities.

[41] Jashpur, Kanker, Korea, Mahasamund, Raipur and Rajnandgaon

2.1.9.6 Equipment in health centres

IPHS prescribes a list of equipment to be available at each level of health facility.

Test check of records of the sampled health centres revealed that none of the DHs, CHCs, PHCs and SHCs had all the essential equipment in their centres as shown in the **Table 2.1.13**.

Table 2.1.13: Availability of essential equipment in the test checked health centres

Health centres test checked	Essential number of equipment to be available[42] at test checked health centres	Essential number of equipment available at health centres	Percentage of shortage
7 DHs	2,016	1,249	38
14 CHCs	3,710	1,751	53
28 PHCs	2,576	1,358	47
84 SHCs	5,628	3,180	43

(Source: Data collected from the selected health centres)

Shortage of essential equipment impaired the functioning of these health centres to deliver their mandates as the patients had to be referred to higher centres for diagnosis and advanced treatment.

In the exit conference (March 2018), the PS while agreeing to the audit observation, stated that the equipments were purchased as per requirement and availability of budget and gradually all the equipments would be made available as per IPHS.

Fact remains that the Department has not prepared a list of all the essential equipment that are not available at different health centres and are required to be purchased. Further, the purchase is centralised and the Corporation makes the purchase upon receiving the indents and supplies it to the health centres. However, the Corporation has not been able to supply the equipment on account of absence of rate contracts, non-receipt of tenders, delay in indents etc. The Corporation has not reported about shortage of fund to meet the demands of Director Health services to supply the equipments.

2.1.9.7 Laboratory service in health centres

IPHS has defined laboratory services for each level of health centres.

In the test checked DHs, numbers of available laboratory services ranged between 18 and 53 against the requirement of 97 while in the sampled CHCs, availability was between 10 and 23 against the requirement of 36 services. Likewise, in selected PHCs, availability ranged between two and 15 against the requirement of 21 services. Two sampled SHCs (Tarabahra and Ghaghra) did not provide any laboratory service.

Further, in three to 11 of the 14 sampled CHCs, important laboratory services recommended as per IPHS such as reticulocyte count, sputum cytology, blood urea, blood lipid profile, ECG and X-ray for chest were not available. In the absence of important laboratory services, patients are forced to go to higher level facilities or to private hospitals which contravenes the basic intent of the

[42] Number of equipment that should be available at each DH is 288, each CHC-265, each PHC-92 and each SHC-67

Mission. The main reasons for non-availability of the laboratory services were due to non-supply of equipment, Auto-analyser, reagents etc., by the Corporation, though indented by the health facilities. In addition, failure of the Department to provide laboratory technicians also resulted in denial of laboratory services by the health facilities.

In the exit conference, the PS while agreeing with the audit observations, stated (March 2018) that there was gap in providing laboratory services and for this, the State has brought out (December 2017) an order for the laboratory technicians to work for all the national programmes irrespective of their recruitment for any specific programme.

The reply is not convincing as instructing the laboratory technicians to work for all the national programmes would not be effective unless the Department prepares plans to bridge the shortage of equipment to deliver the laboratory services.

2.1.9.8 Drugs, consumables, laboratory reagents and disposables in the health centres

IPHS prescribes 493 drugs and consumables such as syringes, needles etc., for DH, 176 for CHC, 148 for PHC and 43 for SHC as essential.

Against the requirements, the sampled DHs had 121 (Bilaspur) to 294 (Raipur) drugs and consumables while the sampled CHCs had 44 (Manendragarh and Patna) to 118 (Khairagarh) drugs. Further, these CHCs had 18 to 49 emergency obstetric care drugs against the requirement of 71 and five to 22 drugs for sick newborn care against the requirement of 25 drugs. Likewise, in the sampled PHCs, 37 (Biharpur) to 81 (Hathibehra and Kewati) drugs were available while the sampled SHCs had 10 (Ghaghra) to 39 (Beerkondal) drugs in their stock.

Shortages of drugs and consumables were mainly due to failure of the Department to ensure that the Corporation supplies the drugs and consumables to the health centres after receiving funds from Government. It was noticed that the sampled DHs and CHCs placed demands for supply of 33,777 types of medicines in different test checked months covering the period 2013-17 (as shown in ***Appendix 2.1.2)*** but the Corporation supplied only 15,641 types of medicines resulting in short supply of 53.69 *per cent* medicines to these health facilities although ₹ 38.14 crore was lying unspent by the Corporation during the period. The short supplies ranged between 1.72 *per cent* (DH-Jashpur for September 2015) and 99.04 *per cent* (CHC Bagbahra for March 2017) as shown in the ***Appendix 2.1.2.*** This indicates that the Corporation could not supply all the desired drugs and consumables to the indented health facilities.

The Corporation informed Audit that supplies could not be made due to non-availability of rate contract for medicines, non- receipt of tenders, late receipt of annual demand from Directorate of Health Services. Resultantly, the patients have to purchase the drugs from outside such as *Jan aushadhi kendra* or local medicine shops etc., while seven DHs and 10 out of 14 CHCs incurred an expenditure of ₹ 2.54 crore from the *Jeevan deep samiti*[43] (JDS) funds to

[43] JDS is operated in every health centre, and funds received under untied funds, maintenance grant, JDS grant and other receipts are credited into the JDS account.

purchase required drugs and consumables from the local market during 2013-17.

Thus, procurement of drugs and consumables in the State was not systematic which deprived the health centres to keep the required drugs and consumables in their stock to deliver their mandates.

In the exit conference (March 2018), the PS stated that online indenting of essential drugs has been started to bring uniformity and quicker fulfilment of demands. The Corporation has initiated online drug distribution system which will ensure timely and adequate supply of drugs.

The reply is not acceptable as online drug distribution system will be effective only when the required drugs and equipment are available in stock, which at present is short as discussed above in the paragraph.

Recommendation

The Department should assess the gaps in equipment, medicines, diagnostic services etc., and take immediate measures to bridge these by coordinating with the Corporation. Concerted efforts may also be taken to upgrade CHCs to FRUs and all PHCs into 24x7 service providers.

2.1.10 Quality of healthcare services

2.1.10.1 Maternal healthcare services

(i) Ante natal care

Ante natal care (ANC) is the healthcare received by a woman during her pregnancy. Every pregnant woman should be registered during the first trimester (first 12 weeks) of her pregnancy and undergo three checkups during the pregnancy, at prescribed intervals for proper ANC. She is also to be immunised with tetanus toxoid (TT) and be provided iron folic acid (IFA) tablets.

Audit observed from records of SHS that 33.09 lakh pregnant women (PW) were registered for ANC of which, 20.73 lakh (62.65 *per cent*) were registered in the first trimester while 72.48 to 95.03 *per cent* PWs could get all three checkups during 2012-17. Further, 5.42 to 28.62 *per cent* women were not immunised during their pregnancy with both doses (TT-1 and TT-2) of TT vaccine during 2012-17 while full dose of IFA tablets were given to only 29.04 lakh (88.85 *per cent*) women.

Only 63.54 *per cent* women were registered for ANC in the first trimester in the test checked districts

In the test checked districts, of the total 11.52 lakh registered PW, 7.32 lakh (63.54 *per cent*) women were registered in the first trimester during 2012-17 and only 44.26 to 88.39 *per cent* PW got the ANC in the first trimester as shown in ***Appendix 2.1.3.*** Further, 2.07 lakh (18 *per cent*) PW could not receive all the three ANC checkups.

The main reasons of shortfall were, late disclosure of pregnancy by pregnant women, non-availability of transport facility due to inaccessible areas, abortion in some cases, migration of women to other districts or states after ANC registration and insufficient visits by the female health workers (commented in **paragraph 2.1.10.1 (iv) (b)**). Further, non-availability of sufficient IFA tablets restricted their distribution in required quantity as commented in **paragraph 2.1.10.1 (ii)**.

In the exit conference (March 2018), the PS *inter alia* stated that the State is trying to improve ANC registration and there is an increasing trend in ANC registration in the first trimester.

The reply is not convincing as the Department could not register 37.35 *per cent* PWs in the first trimester in the State for providing ANC while 18 *per cent* PWs, in the test checked districts, were not provided all the three ANC check-ups.

Recommendation

The Department should ensure that all the pregnant women are invariably registered in the first trimester with the help of ASHAs and their cases followed-up for complete ante natal care. Besides, TT vaccine to all pregnant women should be provided.

(ii) Shortage of IFA tablets

Daily dose of IFA tablets for 100 days is required for preventive treatment against nutritional anemia in PW.

Scrutiny of records collected from DHSs and Health Management Information Systems (HMIS) revealed that 71.26 to 97.64 *per cent* of registered PW were given IFA tablets for prophylaxis[44] against nutritional anemia during 2012-17 in the test checked districts.

There was shortage of IFA tablets for 55 *per cent* of registered pregnant women during 2012-16

Further, IFA tablets were shown to have been given to 7.66 lakh PW in the test checked districts as per the HMIS database against 9.33 lakh registered PW during 2012-16. However, audit cross-checked the availability of IFA tablets from the stock registers of Director health services, Chief Medical and Health Officers (CMHOs) and records of Corporation and observed that IFA for only 4.17 lakh[45] women were available in the stocks of the test-checked districts during the same period. Thus, distribution of IFA tablets to 7.66 lakh PWs seems doubtful and hence, 5.16 lakh (55 *per cent*) PW might have been denied IFA tablets valued at ₹ 1.06 crore which needed investigation. Details are shown in the ***Appendix 2.1.4.***

In the exit conference (March 2018), the PS stated that IFA tablets were being provided to the PW but its consumption is very less. The PS further stated that IFA tablets for 2015-16 were purchased during 2016-17.

The reply is not acceptable as the Department could not provide the required quantity of IFA tablets to the PW. Further, there was late indenting by Director Health services (January 2016 for 2015-16) and late procurement (last quarter of 2015-16) by the Corporation. Besides, the PS could not explain how 7.66 lakh PWs were reportedly given IFAs with stock balance for 4.17 lakh PWs.

Recommendation

The Department should ensure adequate distribution of IFA tablets to all pregnant women by each health facility.

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44 Prophylaxis-treatment given or action taken to prevent disease

45 Data compiled from the stock registers of Director health services, CMHOs and records of Corporation.

(iii) Maternal healthcare services in rural health centres

Desired maternal healthcare services could not be provided due to shortage of specialist doctors in the test checked CHCs

Assessment of availability of maternal healthcare services in the sampled health centres (14 CHCs) revealed that caesarean section (C-section) delivery service was available in only four[46] CHCs, ultra-sonography service was available in only one CHC (Manendragarh), comprehensive obstetric service was available in only five CHCs, round the clock blood storage service was available in only five CHCs and MTP service was available in only 10 CHCs resulting from shortages of specialist doctors in these centres.

This indicates that a large number of CHCs were not able to provide essential maternal healthcare services as well as facility of institutional delivery to cater the demand of rural community. Resultantly, the PWs were sent to higher centres for C- section delivery as noticed from some of the referral slips made available to Audit. However, numbers of cases referred to higher centres for C-section were not maintained by any of the CHCs test checked and visited.

In the exit conference (March 2018), the PS stated that due to shortage of specialists (gynecology and anesthesia), these services are not available in the CHCs.

The reply is not acceptable, as, it is the responsibility of the Department to fill up critical vacancies to upgrade the CHCs to FRUs, and failure to ensure this had resulted in non-delivery of maternal health care services to the PWs.

(iv) Institutional delivery

NRHM encouraged institutional deliveries for improving maternal healthcare through creating awareness among people.

(a) *Janani suraksha yojana* (JSY) was launched as a safe motherhood scheme which aims at reducing maternal and infant mortality through increased institutional deliveries. Under JSY, all pregnant women (PW) who delivered in health facilities were eligible for cash incentive of ₹ 1,400 in rural area and ₹ 1,000 in urban area towards institutional delivery[47]. Accredited social health activists (ASHA)[48] are engaged to encourage the PW for institutional deliveries and guide/facilitate the beneficiaries for opening of bank account.

31,765 (six *per cent*) women who delivered at PHIs in the test checked districts did not receive JSY payment

Scrutiny of HMIS data of the State revealed that 53,983 (3.77 *per cent*) out of 14.32 lakh women who delivered at public health institutions (PHI) during 2012-17 did not receive JSY incentive in the State. In the sampled districts, 31,765 (6.47 *per cent*) out of the 4.91 lakh women who delivered at PHIs did not receive JSY incentives. In the test checked health units under the sampled districts, 1.33 lakh deliveries took place and of this, 8,486 (6.38 *per cent*) PWs who delivered in these health centres did not receive JSY incentive mainly in the absence of bank accounts.

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46 Abhanpur, Bhanupratappur Bilha and Manendragarh

47 Institutional delivery at public health institutions and accredited private hospitals except delivered by APL in a private ward at PHCs.

48 ASHA is appointed to forge the linkage of hamlet to hospital for curative services, empowerment of women and universalisation of chid development services for every 1,000 population. There are 65,901 ASHAs (*Mitanins*) are working in rural areas in the State.

11,229 cheques relating to JSY incentive valuing ₹ 1.46 crore could not be encashed either due to non-deposition of cheques into beneficiary's bank account or non-availability of Bank account in the name of beneficiary

Audit further observed in three out of seven sampled DHs and nine out of 14 sampled CHCs that cheques for incentives were issued to 69,905 women under JSY but 11,229[49] cheques (pertaining to the period 2012-17) valued at ₹ 1.46 crore could not be encashed either on account of failure to deposit the cheques into beneficiary's bank accounts or non-availability of bank account in the name of beneficiary. Thus, the objective of providing incentive for institutional delivery could not be fully achieved.

In the exit conference (March 2018), the PS stated that earlier JSY incentive was paid through account payee cheques, but due to non-availability of bank account in the name of some beneficiaries, cheques were not collected or after collecting, these were not deposited in bank accounts which resulted in non-payment of the incentive to the beneficiaries. Now direct to bank payment system has been initiated by the State to provide incentive to all the beneficiaries under JSY.

The fact remains that no measures were taken to make payments to those PWs who do not own bank accounts.

(b) Analysis of deliveries

In seven test checked districts, 11.52 lakh PWs were registered for ANC during 2012-17. Against this, the Department fixed[50] a target of 8.79 lakh institutional deliveries. However, the institutional deliveries were 6.83 lakh and home deliveries were 1.84 lakh as given in ***Appendix 2.1.5.*** Further analysis of data relating to PWs registered for ANC revealed that:

✓ The percentage of institutional delivery against the total deliveries (home plus institutional deliveries) increased from 65.54 to 94.88 *per cent* over five years during 2012-17, however, the achievement against the target was 78 *per cent* (6.83 lakh out of 8.79 lakh).

✓ Further, test check of 84 SHCs revealed that out of 6,937 deliveries conducted at home during 2012-17, only 20.74 *per cent* home deliveries (1,439) were attended by doctor/ nurse/ANM and 30.20 *per cent* newborns (2,095) were not visited by health worker within 24 hours of home delivery. The reasons stated by the ANMs for not attending were lack of timely information of home delivery and home delivery undertaken outside the area of SHC.

Further, out of total home deliveries during 2012-17 in the State, deliveries ranging between 54.37 and 74.20 *per cent* were carried out by *dais*/relatives/others and 11.17 and 22.69 *per cent* newborns were not visited by a doctor/ANM/nurse within 24 hours of delivery as required under the norms. The reasons stated by the ANMs were lack of timely information of home delivery and home delivery outside the area of SHC.

Though the home deliveries have decreased from 34.46 to 5.12 *per cent* of the total delivery in the test checked districts, delivery by ANMs, who were not trained as skilled birth attendant (SBA), ranged between 44.83 and 77.78 *per cent*. Further, it was observed that only 31 *per cent* (26 out of 84 test checked

[49] 2012-13-₹ 8.95 lakh, 2013-14-₹ 34.70 lakh, 2014-15-₹ 38.74 lakh, 2015-16-₹ 33.89 lakh, 2016-17- ₹ 29.67 lakh

[50] Target was fixed according to decadal growth rate as per the census data 2011 and crude birth rate of annual health survey 2012-13

SHCs) ANMs were SBA trained and 1,731 (24 *per cent*) out of 7,145 ANMs working as on 31 March 2017 in the State were SBA trained.

The shortages in institutional deliveries were attributed to non-availability/ timely availability of vehicle due to remote area in some cases and inadequate human resources at 24x7 identified health centres.

Thus, the above deficiencies contributed to failure in achieving the target of reducing the IMR by providing healthcare to newborns within 24 hours of birth.

In the exit conference (March 2018), the PS stated that the State is promoting institutional deliveries which are increasing over the period of last five years 2012-17.

The reply is not acceptable as the Department had not been able to achieve the target for institutional deliveries. Further, the cases of short achievement against targets, home deliveries not attended by doctors/nurse/ANMs or not conducted by any SBA trained ANMs which were counterproductive to the objective of the Mission were not replied by the PS.

Recommendations

The Department should promote institutional delivery through awareness programme, motivating the pregnant women through ASHA and by providing transport services. Efforts should be made to minimise the home deliveries.

2.1.10.2 Janani shishu suraksha karyakram

Janani shishu suraksha karyakram (JSSK) was aimed at providing free and cashless services to PW including free drugs and consumables, free diagnostics, free diet during stay in the health institutions. The State Government also provided a smart card[51] with a medical insurance cover of ₹ 30,000 to a maximum of five members of an enrolled family by the Insurance Company either under *Rashtriya swasthya bima yojana* (RSBY) for below poverty line (BPL) family or under *Mukhyamantri swasthya bima yojana* (MSBY) for any family.

In the test checked health facilities, ₹ 1.60 crore (the package amount at the rate of ₹ 4,500 for normal delivery and ₹ 11,250 for caesarian delivery) were irregularly deducted from the smart card of 2,618 beneficiaries of delivery cases in contravention of the mandate to provide free service.

Thus, GoI guidelines on JSSK to provide free delivery service were not followed as package amount for delivery was deducted from the balance in the smart cards of the beneficiaries. This also deprived the families from availing of the service for diseases/ ailments other than delivery service within the limit of the smart card.

[51] A microchip based card issued to the beneficiaries under this scheme after taking photograph and thumb impression of the family members on computer system. This card is used at the time of admission as in-patient in the health facility. This card is pre-loaded with ₹ 30,000 as credit balance at the beginning of insurance period. Treatment cost is debited from the balance amount of the card.

In the exit conference (March 2018), the PS stated that by deducting the amount, the Government is getting the insured amount. However, the PS stated that necessary instructions would be issued in this regard.

The reply is not acceptable as the PWs are entitled to delivery services free of cost under JSSK and the Department has wrongfully charged the PWs for delivery services in violation of the JSSK.

2.1.10.3 Post-natal care

According to JSY, as part of post-natal care (PNC), a PW has to stay for minimum 48 hours after her delivery in the Health centre.

Thirty five *per cent* women were discharged within 48 hours in the test checked districts mainly due to lack of facility for meals, LAMA etc.

Out of 14.32 lakh public institutional deliveries conducted in the State during 2012-17, 5.05 lakh (35.27 *per cent*) women were discharged within 48 hours of delivery. In seven test-checked districts, 4.91 lakh institutional deliveries were conducted and of these, 1.72 lakh (35.02 *per cent*) women were discharged within 48 hours of delivery during 2012-17. Thus, postpartum care for 48 hours after delivery at health facilities could not be provided to these women.

Reasons for discharge within 48 hours of delivery, as noticed from the records and interviews, was mainly due to left against medical advice (LAMA), non-availability of diet facility in some of the PHCs (as mentioned in **Table no.2.1.11**) besides the fact that 512 (out of 785) PHCs did not have 24x7 facilities and 141 (out of 169) CHCs were not FRUs as commented in **paragraphs 2.1.9.5 (ii) and (iii)** to undertake PNC by retaining PWs after delivery**.**

In the exit conference, the PS, while agreeing to the audit observation stated (March 2018) that the State is trying to operationalise 492 PHCs on round the clock (24x7) basis to ensure 48 hour stay of women after delivery.

The reply lacks rationale as the PS had replied in paragraph 2.1.9.5 (ii) that the PHCs could not be made operational on 24x7 basis due to shortage of doctors and nurses and the shortages have not yet been bridged. Further, the reason for not making available diet in the PHCs, as noticed by Audit, was not replied to by the Department.

2.1.10.4 Immunisation

Routine immunisation is an important strategy for child survival, focusing on preventive care to reduce morbidity against seven preventable diseases. Accordingly, vaccinations for tuberculosis (BCG), diphtheria, pertussis, tetanus (DPT), polio (OPV) and measles are to be given in seven stages to the age group of zero-one year under universal immunisation programme. Pulse polio immunisation campaigns are also taken up for eradication of polio.

Audit observed from the RCH registers at SHCs and immunisation records of test checked PHCs, CHCs and DHs that immunisation[52] of children between zero and one year age group ranged between 80 and 86 *per cent* in the State and 77 *per cent* and 83 *per cent* in the test checked districts during the period 2012-17. The main reasons for not immunising all the children was lack of

[52] Carried out by ANMs of SHCs by visiting the villages to vaccine the eligible children and at other health facilities, these are administered to the children by making entries in the vaccination card

awareness, inaccessible area and migration of families along with children to other States etc.

In the exit conference (March 2018), the PS stated that immunisation services in Chhattisgarh are one of the best services among the States of India. During the last *Indradhanush* programme, Chhattisgarh has achieved around 90 *per cent* of target and GoI appreciated the effort of State and kept it in the list of Non-*Indradhanush* State. The PS also stated that immunisation session at left wing extremism (LWE) areas are being organised at *haat* bazaar etc.

The fact remains that 17 to 23 *per cent* targeted children in the sampled districts and 14 to 20 *per cent* targeted children in the entire State is yet to be immunised.

Recommendation

The Department should ensure that the PWs invariably stay for 48 hours in the health centres after delivery as part of post-natal care. Child immunisation should be ensured on priority basis to achieve the target.

2.1.10.5 Family planning

Family planning (FP) services were to be utilised as a key strategy to reduce maternal and child morbidity and mortality in addition to stabilising population by reducing total fertility rate (TFR). Implementing agencies were to encourage focusing on promotion of spacing methods, especially intra-uterine contraceptive devices (IUCD).

Against the estimated level of achievement (ELA) of 5.89 lakh female sterilisations for the State, the actual achievement was only 4.12 lakh (70 *per cent*) and against the target of 2.62 lakh in the test checked districts, the achievement was 1.36 lakh (52 *per cent*) during 2012-17. Further, the target/ ELA for sterilisation were reduced[53] during 2012-17.

Audit observed that IUCD insertions, though voluntary, increased from 90,562 in 2012-13 to 1,48,003 in 2016-17 in the State but the actual achievement against the ELA ranged between 59 and 67 *per cent* despite training given to 2,405 staff (doctors, staff nurses, LHV, RMA and ANMs) during 2012-17 by spending ₹ 4.90 crore. In the test checked districts, the achievement was 60.83 *per cent.* The reasons for shortfall were on account of shortage of OTs and doctors in the centres to conduct the sterilisation operations.

In the exit conference (March 2018), the PS stated that FP is a free programme and sterilisation operations are conducted in facilities having functional OT and surgeons.

The fact remains sterilisation against ELA is short by 30 *per cent* in the State and 48 *per cent* in the test checked districts and ensuring functional OTs and deputing surgeons in the health centres are the primary responsibility of the Department.

[53] Target for ELA for laproscopy and tubectomy was decreased from 1,50,100 in 2014-15 to 49,834 for the year 2015-16 and to 70,000 for the year 2016-17.

2.1.10.6 Quality assurance

(i) Quality assurance programme

As per the guidelines for quality assurance (QA) standards in public health facilities, organisation arrangements is to be ensured for strengthening the QA activities through State quality assurance committee (SQAC) with support of State quality assurance unit (SQAU), district quality assurance committee (DQAC) with support of district quality assurance unit (DQAU) and district quality team (DQT) at respective levels with defined roles and responsibilities.

The main activities of SQAC are to conduct six monthly independent/joint visits for assessment of health facilities, compile and collate monthly data on key performance indicators (KPIs) received from the district quality units, hold half-yearly review meetings and prepare reports.

Audit observed that neither prescribed meetings (only one meeting against four) were held during 2014-16[54] nor monthly data of KPIs was received from any of the districts and hence no action was taken on this. Further, DQAU was not formed in the test checked districts by the Health Department for reasons not on record but the field visits were made by Medical officers and RMNCH[55] consultant.

In the exit conference (March 2018), PS agreed that DQAU was not formed and stated that field visits to monitor the quality in the health facilities is done by the Medical officers and other staff to give necessary instructions to the facilities.

The reply is not acceptable. Though makeshift arrangement of sending the Medical officers to field was made a practice, it violates the objectives of the Mission as DQAU needs to be formed with separate set-up in every district as a part of QA standards. No justification was given by the Department for failure to establish the DQAU and how the QA is ensured in its absence.

(ii) Patient satisfaction survey

Under the guidelines, a quarterly feedback (for 30 OPD and 30 IPD patients separately in a month) is to be taken on a structured format by the hospital manager.

The quality assurance guidelines provide for constitution of DQT at the DHs. It was, noticed that DQT was constituted in all DHs but the patient satisfaction survey, to assess the gaps in the quality of service provided by the health facility, was conducted on 2,023 patients (20.07 *per cent*) against 10,080[56] patients who visited these seven DHs during 2015-17.

Though necessary instructions were given for improvement in the service delivery on the basis of conducted patient's satisfaction survey, in the absence of prescribed number of patients' satisfaction surveys, gaps in the quality of service provided by the health facility may not project true and fair assessment of service delivery.

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54 SQAC was formed in July 2014.

55 Reproductive maternal neonatal child and adolescent health

56 Patient satisfaction survey is to be conducted on 30 IPD and 30 OPD patients in a month

(iii) Maternal and infant death review

Maternal death review is an important strategy to improve the quality of obstetric care and reduce maternal mortality. 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 DQAC on monthly basis which will compile and collate the data received from facilities and send the report to SQAC.

In seven test checked districts, 1,027 maternal deaths occurred during 2012-17, of which 963 cases were audited and 851 cases were reported to SQAC by DQAC. Similarly, out of 9,720 infant deaths in the sampled districts, 6,200 cases were audited and only 2,740 cases were reported to SQAC.

In the exit conference, the PS while agreeing to audit observations, stated (March 2018) that death audit of mothers was being conducted but the death audit of children has been started from the year 2016-17.

Recommendation

The Department should establish DQAU in all the districts to ensure audit of all maternal and infant deaths, field visits to monitor the quality in the health facilities and its reporting to SQAU for remedial measures.

2.1.11 Status of ultimate goals

NRHM aims to reduce IMR to less than 25 per 1,000 live births, MMR to 100 per lakh live births and TFR to 2.1 by 2017. India is also a signatory to United Nations targets of millennium development goals (MDGs).

The State could not attain the goals of IMR, MMR and TFR and lagged far behind the achievements of other States. As per SRS bulletin of September 2017, IMR of the State was 39 per 1,000 live births while MMR was 173[57] per 1,00,000 live births. The State stands at 15th place in IMR and 12th place in MMR in the country. TFR stands at 2.2[58] (2015) against the goal of 2.1 by 2017.

Although the state parameters have improved since the implementation of NRHM scheme, the vital health indicators were still not close to the goals the programme had set. The audit findings in this report highlight and flag the key area of concerns which need to be addressed if the goals of NRHM are to be achieved.

In the exit conference (March 2018), the PS stated that there has been drastic change in the health care situation and the State has improved during the NHM period. The fact remains that the Department needs to address the key concerns flagged in the Audit Report, if the NRHM goals are to be achieved.

2.1.12 Conclusion

Ninety three *per cent* of sampled CHCs and 14 *per cent* of sampled PHCs were located beyond 30 km while 76 *per cent* of sampled SHCs were located beyond three km distance from the farthest villages in violation of IPH

[57] SRS special bulletin on MMR 2014-16 (May 2018)
[58] TFR of State was 2.2 as per NFHS -4

standards. Further, 21 *per cent* of sampled PHCs and 79 *per cent* of sampled SHCs were not accessible by public transport. In addition, 876 health centres did not have their own buildings and were functioning from private buildings or other Government buildings where facilities to deliver all the health services were not available.

There were shortages in human resources in critical positions in the DHs, CHCs and PHCs in the State which adversely affected the delivery of mandate of NRHM. These included shortages of specialist doctors (89 and 89 *per cent*), Medical officers (36 and 36 *per cent*), staff nurses (57 and 34 *per cent*) and paramedics (49 and 12 *per cent*) with respect to IPH standards and sanctioned strength respectively.

The Department failed to achieve the target of setting up FRU and to provide 24x7 services. Out of 169 CHCs, the Department planned to upgrade 46 CHCs into FRU but only 28 (61 *per cent)* CHCs could be upgraded. Similarly, 273 (55 *per cent)* out of targeted 492 PHCs could be made 24x7 service provider although the State had 785 functional PHCs.

The Department suffered from significant shortages of essential drugs, consumables and equipments. While shortages of equipment were 38 *per cent* at DHs, 53 *per cent* at CHCs, 47 *per cent* at PHCs, the deficit of essential medicines were to the extent of 40 to 75 *per cent* in DHs, 33 to 75 *per cent* in CHCs and 45 to 75 *per cent* in PHCs. In addition, shortages in availability of laboratory services were noticed at all levels.

Out of 33.09 lakh pregnant women registered in the State for ANC, 20.73 lakh (62.65 *per cent*) were registered in the first trimester. In the test checked districts, only 63.54 *per cent* PWs could be registered within first trimester of pregnancies while 18 *per cent* PWs could not receive three ANC check-ups. Hence, the Department lagged behind in extending the benefits of NRHM to all the PWs

Against the objective of promoting institutional delivery and 48 hours stay in hospital after child birth, only 79 *per cent* deliveries were performed in institutions while 21 *per cent* deliveries were performed in homes in the test checked districts during 2012-17. Further, 35.02 *per cent* women (1.72 lakh) were discharged within 48 hours of delivery in public health institutions while 69.59 *per cent* of total home deliveries (1.84 lakh) during 2012-17 were not attended by SBA trained health professionals.

The targets set for child immunisation against seven vaccine preventable diseases could not be achieved in 17 to 23 *per cent* cases during 2012-17.

In the absence of adequate improvement in health care facilities, the infant and maternal mortality rates (IMR: 39/1,000, MMR: 173/1,00,000) were far short of the NRHM goals (IMR: less than 25/1,000, MMR: less than 100/1,00,000) and MDG (IMR: 27/1,000 and MMR: 109/1,00,000). The total fertility rate was 2.2 against the NRHM target of 2.1.

Appendix 2.1.1

(Referred to in paragraph 2.1.5; page 8)

Scope and coverage of Audit

District (DH)	CHC	PHC	Sl. No.	SHC
Bilaspur	Bilha	Bodsara	1	Bundela
			2	Mangla
			3	Sardha
		Hardikala	4	Pondi
			5	Hardikala
			6	Silpahari
	Kota	Chapora	7	Chapora
			8	Kanchanpur
			9	Pudu
		Pondi	10	Kalmitar
			11	Mohda
			12	Ranigaon
Jashpur	Lodam	Paiku	13	Galonda
			14	Neemgaon
			15	Pidi
		Gholeng	16	Gamhariya
			17	Kere
			18	Lokhandi
	Manora	Asta	19	Baherna
			20	Harri
			21	Karadiri
		Ghaghra	22	Fatehpur
			23	Patiya
			24	Sogda
Rajnandgaon	Khairagarh	Mudhipar	25	Chichola
			26	Mudhipar
			27	Tolagaon
		Pandadah	28	Achanaknawagaon
			29	Devari
			30	Itar
	Ghumka	Somni	31	Baghera
			32	Sankra
			33	Thakurtola
		Surgi	34	Bharregaon
			35	Kanharpuri
			36	Surgi
Mahasamund	Bagbahara	Hathibahra	37	Hathibahra
			38	Kasekera
			39	Kosmarra
		Komakhan	40	Bindrawan
			41	Boirgaon
			42	Komakhan
	Tumgaon	Birkoni	43	Birkoni
			44	Ghodari
			45	Nandgaon
		Khatti	46	Kanekera
			47	Khatti
			48	Labhrakala

District	CHC	PHC	Sl. No.	SHC
Korea	Patna	Nagar	49	Shivpur
			50	Bishunpur
			51	Ratga
		Mansukh	52	Chilka
			53	Majhgawa
			54	Saraigahna
	Manendragarh	Biharpur	55	Tarabahra
			56	Mahai
			57	Pendri
		Kelhari	58	Pahadhanswahi
			59	Ghaghra
			60	Kelhari
Raipur	Arang	Bhansoj	61	Malidih
			62	Nara
			63	Tekari
		Pharphaud	64	Banrasi
			65	Kosrangi
			66	Pharphaud
	Abhanpur	Khorpa	67	Sarkhi
			68	Belar
			69	Chandi
		Manikchauri	70	Pipraud
			71	Manikchauri
			72	Girola
Kanker	Bhanupratappur	Hatkarra	73	Khadga
			74	Baskund
			75	Barvi
		Kenwati	76	Asulkhar
			77	Birkondal
			78	Kenwati
	Dhanelikanhar	Bagodar	79	Dumali
			80	Hatkongera
			81	Makrikhuna
		Mardapoti	82	Kodabhat
			83	Patod
			84	Vyaskongera

Appendix 2.1.2

(Referred to in paragraph 2.1.9.8; page 25)

Details of short supply of drugs by Corporation in the test checked health centres

Name of health facility	Period of test check	Occasions of short supply against demand	Number of items demanded	Number of items supplied	Items short supplied	Range of short supply in percentage
DH Bilaspur	01/2014-03/2017	44	2,107	640	1,467	8.33- 95.29
CHC Bilha	10/2013-02/2017	34	2,482	995	1,487	23.33- 88.24
CHC Kota	12/2013-03/2017	18	1,143	543	600	17.91- 79.85
CHC Lodam	09/2013-03/2017	26	1,899	1,369	530	3.33.- 86.70
DH Jashpur	04/2015-03/2017	21	942	820	122	1.72-41.89
CHC Manora	01/2016-02/2017	3	135	100	35	25.33-27.59
DH Kanker	11/2013-03/2017	36	4,408	919	3,489	8.11- 98.79
CHC Dhanelikanhar	02/2014-03/2017	28	2,124	651	1,473	6.06- 88.74
CHC Bhanupratappur	09/2013-02/2017	32	3,272	1,101	2,171	5.00- 90.44
DH Korea	07/2014-02/2017	24	1,084	602	482	2.08- 74.47
CHC Manendeagarh	04/2013-03/2017	40	2,619	1,301	1,318	17.78- 70.69
CHC Patna	11/2013-03/2017	33	1,429	978	451	3.77- 76.92
DH Mahasamund	08/2016-03/2017	8	548	131	417	56-90.32
CHC Bagbahara	09/2013-03/2017	39	2,750	1,117	1,633	3.85- 99.04
CHC Tumgaon	05/2016-03/2017	7	792	115	677	73.86- 96.39
DH Raipur	09/2013-03/2017	79	1,476	1,042	434	2.78-85.71
CHC Abhanpur	04/2014-03/2017	29	1,283	808	475	9.26-78.52
DH Rajnandgaon	01/2015-11/2016	12	955	655	300	1.82- 59.26
CHC Khairagarh	04/2016-03/2017	11	467	352	115	4.35-60.87
CHC Ghumka	06/2015-03/2017	12	689	442	247	8.33- 77.19
CHC Arang	12/2013-03/2017	24	1,173	960	213	6.00-56.41
Total			**33,777**	**15,641**	**18,136**	**53.69**

Appendix 2.1.3

(Referred to in paragraph 2.1.10.1 (i); page 26.)

Details of Ante Natal Check-up of pregnant women in test checked districts

Year	Registered pregnant women (As per CMHO data)	Registered pregnant women under ANC in first trimester (*per cent*) as per HMIS data	Three checkups (*per cent*) as per HMIS data
2012-13	2,22,621	98,521 (44.26)	1,49,353 (67.09)
2013-14	2,50,637	1,22,014 (48.68)	1,83,292 (73.13)
2014-15	2,38,599	1,44,808 (60.69)	1,96,062 (82.17)
2015-16	2,21,541	1,72,539 (77.88)	2,07,876 (93.83)
2016-17	2,19,054	1,93,620 (88.39)	2,08,500 (95.18)
Total	**11,52,452**	**7,31,502**	**9,45,083 (82.00)**

Appendix 2.1.4

(Referred to in paragraph 2.1.10.1 (ii); page 27.)

Details of registered pregnant women and IFA tablets provided in test checked districts

Year	ANC as per CMHO	No. of women given 100 IFA as per HMIS	Percentage of women given 100 IFA	Required quantity of IFA as per HMIS	Total IFA available at district (received from DHS, CGMSC and procured by CMHO)	Shortage/ Excess	Total number of women for whom the available IFA tablets were sufficient	Excess shown in the data
2012-13	2,22,621	1,58,646	71.26	1,58,64,600	2,31,31,953	(-)72,67,353	2,31,320	-
2013-14	2,50,637	1,97,460	78.78	1,97,46,000	41,33,180	1,56,12,820	41,332	1,56,128
2014-15	2,38,599	1,96,677	82.43	1,96,67,700	75,97,700	1,20,70,000	75,977	1,20,700
2015-16	2,21,541	2,13,301	96.28	2,13,30,100	68,64,250	1,44,65,850	68,643	1,44,659
Sub-Total	**9,33,398**	**7,66,084**	**82.07**	**7,66,08,400**	**4,17,27,083**	**3,48,81,317**	**4,17,272**	**4,21,487**
2016-17	2,19,054	2,13,908	97.64	2,13,90,800	5,34,66,260	(-) 3,20,75,460	5,34,663	--
Total	**11,52,452**	**9,79,992**		**9,79,99,200**	**9,51,93,343**	**28,05,857**	**9,51,935**	**4,21,487**

Appendix 2.1.5

(Referred to in paragraph. 2.1.10.1 (iv)(b); page 29)

Details of institutional and home deliveries in the test checked districts

Year	Pregnant women registered for Ante Natal Care	Targets for institutional deliveries	Institutional deliveries done	Home deliveries done	Total deliveries	Percentage of institutional delivery	Percentage of home delivery	Home deliveries conducted by Non-SBA trained (as per HMIS)	Percentage of home delivery conducted by non- SBA
2012-13	2,22,621	1,71,130	1,09,042	57,340	1,66,382	65.54	34.46	39,946	69.67
2013-14	2,50,637	1,78,054	1,25,624	52,734	1,78,358	70.43	29.57	38,940	73.84
2014-15	2,38,599	1,72,249	1,35,146	42,512	1,77,658	76.07	23.93	33,064	77.78
2015-16	2,21,541	1,82,284	1,49,177	23,064	1,72,241	86.61	13.39	12,459	54.02
2016-17	2,19,054	1,75,687	1,63,520	8,816	1,72,336	94.88	5.12	3,952	44.83
TOTAL	**11,52,452**	**8,79,404**	**6,82,509**	**1,84,466**	**8,66,975**			**1,28,361**	

(Source: CMHOs and HMIS)