Chapter 5 Maternity Services

Maternal Mortality Ratio[45] (MMR), Neonatal Mortality Rate[46] (NMR), Under 5 Mortality Rate[47] (U5MR) and Infant Mortality Rate[48] (IMR) are important indicators of the quality of maternity services available. Antenatal care (ANC), Intra-partum care or delivery care (IPC) and Postnatal care (PNC) are the major components of facility based maternity services. ANC is the systemic supervision of a woman during her pregnancy to monitor the progress of foetal growth and to ascertain the well-being of the mother and the foetus. Under IPC, interventions for safe delivery in labour room and operation theatre are performed. PNC includes medical care of the mother and newborn after delivery of the child especially during the 48 hours post-delivery, which are considered critical.

Norms for provisioning of various maternal health services and resources, viz., human resources, drugs, consumables and equipment for different levels of hospitals have been specified in Maternal and Neonatal Health Toolkit 2013 (MNH Toolkit) and Guidelines of *Janani Shishu Suraksha Karyakram* (JSSK), prescribed by the GoI for delivery of quality maternal health services.

Audit scrutiny of records in the six test-checked DHs disclosed deficiencies in resource management and clinical efficiency, as discussed in the succeeding paragraphs:

5.1 Antenatal care

ANC involves general and abdominal examination[49] and laboratory investigations to monitor pregnancies, management of complications such as Reproductive Tract Infection (RTI)/ Sexually Transmitted Infection (STI) and comprehensive abortion care.

5.1.1 ANC check-ups of pregnant women

As per Guidelines for Antenatal Care (ANC) and Skilled Attendance at Birth, 2010, ANC associated services mandates provision of iron and folic acid (IFA) tablets, tetanus toxoid (TT) injection etc., to a pregnant women

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45 Number of maternal deaths per 1,00,000 live births due to maternal causes.
46 Number of death during the first 28 completed days of life per 1000 live birth
47 Number of deaths of infants (under five year) per 1,000 live births.
48 Number of deaths of infants (under one year) per 1,000 live births.
49 Weight measure, blood pressure, respiratory rate, check for pallor and oedema, abdominal palpation for foetal growth, foetal lie and auscultation of Foetal Heart Sound (FHS) *etc*.

(PW). Complete cycle[50] of ANC requires early registration of a pregnant women with a hospital.

As per Health and Family Welfare Statistics in India for the year 2019-20, MMR of Jharkhand was 165 against average national MMR of 122 in 2017.

Further, as per Health Management Information System (HMIS), 1.30 lakh pregnant women (PWs) were registered in the six test-checked DHs during 2014-19. Out of this, 51,526 (40 *per cent*) PWs were not provided complete cycle of ANC, 77,762 (60 *per cent*) PWs were not provided first TT injection, 85,743 (66 *per cent*) PWs were not provided second TT injection and 54,539 (42 *per cent*) PWs were not provided IFA tablets. Thus, the hospitals failed to provide adequate ANC services.

The Department did not furnish replies to the audit observations.

5.2 Comprehensive Abortion Care

Unsafe abortion due to pregnancy complications also contributes to maternal morbidity and mortality. MNH Toolkit prescribes the availability of Comprehensive Abortion Care (CAC) services at each hospital with availability of essential drugs.

Audit observed that CAC facility was available through labour rooms/gynaecology OTs in all the six test-checked DHs. During five sampled months[51], 134 abortion cases were found recorded in abortion registers in four[52] test-checked DHs with reasons recorded as induced/incomplete/missed/ continuous abortion, consumption of Medical Termination of Pregnancy (MTP) pills and bleeding.

Further, Audit could not assess the availability and consumption of essential medicines of CAC as no specific records was maintained in the labour rooms/gynaecology OTs.

The Department did not furnish replies except in respect of DH, Hazaribag, wherein it was stated that proper records would be maintained.

5.3 Intra-partum care

Intra-partum Care (IPC) includes care of pregnant woman during intra-partum period (the time period spanning childbirth from the onset of labour). Proper care during labour prevents stillbirths, neonatal deaths and other complications.

The quality of IPC is largely dependent on availability of essential resources and clinical efficiency of the medical and paramedical staff.

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50 Three ANCs upto 2016-17. From 2017-18 four ANC is required.

51 Except records of two sampled months (May 2014 and August 2015) of DH, Hazaribag which were not available and two DHs (East Singhbhum and Ramgarh) did not maintain the records of abortion cases.

52 Deoghar, Hazaribag, Palamu and Ranchi.

5.3.1 Availability of resources

MNH Toolkit/IPHS prescribes 21 drugs, 20 consumables, 28 equipment and 23 to 47 manpower based on average monthly deliveries for maternity services at DHs. Details of shortage of the four essential resources are discussed in the succeeding paragraphs.

5.3.1.1 Essential drugs

To ascertain the availability of 21 essential drugs in maternity IPDs as per MNH Toolkit, Audit examined drugs stock registers of five sampled months during 2014-19 in the six test-checked DHs and noticed non-availability of essential drugs as given in **Table 5.1**.

Table 5.1: Non-availability of essential drugs in maternity

Name of DH	Number of essential drugs not available during				
	May 2014	August 2015	November 2016	February 2018	May 2018
Deoghar	16	17	18	19	11
East Singhbhum	12	7	6	6	4
Hazaribag	13	17	14	14	13
Palamu	19	15	15	14	15
Ramgarh	RNA*	RNA	13	8	6
Ranchi	RNA	19	12	RNA	13
*RNA- Records not Available					

(Source: Records of test-checked DHs)

It can be seen from **Table 5.1** that there was acute shortage of drugs needed for maternity care with maternity IPDs of the test-checked DHs. Audit further observed that vital drugs like Hydralazine[53] was not at all available in the maternity IPDs of all the six test-checked DHs; Dopamine/ Methyldopa[54] was not available in five test checked DHs except in Ramgarh; Adrenaline, Calcium Gluconate and Diazepam[55] were not available in four DHs except in East Singhbhum and Ramgarh; Ampicillin was not available in four DHs except in East Singhbhum and Ranchi and Gentamycin was not available in three DHs (Hazaribag, Palamu, and Ranchi).

Non-availability of vital drugs such as Hydralazine (used to treat high blood pressure and heart failure), Dopamine (used to improve the pumping strength of the heart and to treat certain conditions that occur when patients are in shock which may be caused by heart attack, trauma, heart/ kidney failure etc.), Adrenaline (used in emergencies to treat very serious allergic reactions to improve breathing, stimulate the heart, raise a dropping blood pressure, etc.) compromised the ability of maternity IPDs to provide emergency and critical care.

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53 First-line treatment for acute hypertension in pregnancy
54 Used to treat high blood pressure in pregnancy
55 Anti-anxiety medication

The Department accepted (January 2021) the facts in respect of three DHs (Deoghar, Hazaribag, and Palamu). However, no replies were furnished in respect of the remaining three DHs (East Singhbhum, Ramgarh and Ranchi).

5.3.1.2 Essential Consumables

Scrutiny of records in the test-checked DHs revealed non-availability of 20 essential consumables as per MNH Toolkit in the sampled five months during 2014-19 as given in **Table 5.2**.

Table 5.2: Non-availability of essential consumables

Name of DH	Number of essential consumables not available during				
	May 2014	August 2015	November 2016	February 2018	May 2018
Deoghar	11	11	10	8	8
East Singhbhum	11	9	8	10	9
Hazaribag	16	15	14	12	13
Palamu	18	15	15	12	13
Ramgarh	Records not available		8	8	6
Ranchi	Information/ records not provided				

(Source: Test-checked DHs)

Audit noticed that essential consumables like draw sheets, identification tags and thread for sutures were not available in all the six test-checked DHs. Baby wrapping sheets were not available in two DHs (East Singhbhum and Hazaribag) and Nasogastric tubes were not available in three DHs (Deoghar, Hazaribag and Palamu) though these were required for delivery and other maternity services.

The Department did not furnish replies except in the case of DH, East Singhbhum, where baby wrapping sheets was stated to have been made available.

5.3.1.3 Essential Equipment

According to IPHS, DHs are required to ensure the availability of 28 types of equipment and instruments for examination and monitoring of patients under maternity. However, Audit observed that the test-checked DHs did not have essential equipment as of March 2020 as shown in **Table 5.3**.

Table 5.3: Equipment not available in DHs

Name of DHs	Number and name of essential equipment not available	
Deoghar	13	Baby Incubator, Cardiac Monitor, Cardio tocography monitor, CPAP machine, Craniotomy, Emergency resuscitation kit, baby Forceps delivery kit, Haemoglobinometer, Public address system, Room Warmer, Silastic vacuum extractor, Vacuum extractor metal and Weighing machine adult.
East Singhbhum	08	Cardiac Monitor, Cardio tocography monitor, CPAP machine, Craniotomy, Haemoglobinometer, Public address system, New-born care equipment and Vacuum extractor metal.
Hazaribag	15	Cardiac Monitor, Cardio tocography monitor, CPAP machine, Emergency resuscitation kit, Episiotomy kit, Haemoglobinometer, Nebuliser, New-born care equipment, Phototherapy unit, Public address system, Pulse oxymeter, Room warmer, Silastic vacuum extractor, Delivery Kit and Glucometer.
Palamu	06	Baby Incubator, CPAP machine, Cardiac tocography monitor, Head box for oxygen and Public address system.
Ramgarh	18	Baby Incubator, Cardiac Monitor, Cardio tocography monitor, CPAP machine, Craniotomy, Emergency resuscitation kit, Episiotomy kit, Head Box for Oxygen, Nebuliser, New-born care equipment, Public address system, Room warmer, Silastic vacuum extractor, Vacuum Extractor Metal, Weighing machine adult, Standard weighing scale, Delivery kit and Forceps delivery kit.
Ranchi	-	Information/ records not provided

It can be seen from **Table 5.3** that the test-checked DHs did not have the required equipment. Two DHs (Hazaribag and Ramgarh) lacked more than 50 *per cent* of essential equipment. Shortage of essential equipment compromised the ability of the hospitals to provide emergency and critical care.

The Department did not furnish any replies.

5.3.1.4 Essential human resources

MNH Toolkit prescribes manpower for maternity services based on an average of 100 to 500 deliveries per month in a hospital for quality service delivery with dignity and privacy to clients and for providing best possible care during pregnancy, delivery and postpartum to the patients as illustrated in **Table 5.4**.

Table 5.4: Manpower required under maternity services as per MNH Toolkit

Average deliveries per month	Doctors	Supporting personnel	Total
100-200	4	19	23
200-500	15	26	41
500 & above	17	30	47

Availability of manpower *vis-à-vis* requirement based on average monthly deliveries for maternity services in test-checked DHs during 2018-19 was as given in **Table 5.5**.

Table 5.5: Availability of manpower against requirement under maternity

Particular		Deoghar	East Singhbhum	Hazaribag	Palamu	Ramgarh	Ranchi
Average monthly delivery as per HMIS		465	122	697	565	299	634
Requirement of Doctors		15	4	17	17	15	17
Requirement of supporting staff		26	20	30	30	26	30
Sl. No.	**Available Manpower**						
1	Doctors	8	5	6	9	14	14
2	Supporting personnel	18	27	25	21	11	82
	Total	**26**	**32**	**31**	**30**	**25**	**96**

(Source: Records of test-checked DHs)

Audit noticed that service-wise specific manpower was not sanctioned in the test-checked DHs. However, as per information furnished by DHs based on working pattern of maternity wards, DH, East Singhbhum had sufficient manpower. However, there was short deployment of doctors ranging between seven and 65 *per cent* in five DHs[56] while short deployment of supporting personnel ranged between 17 and 58 *per cent* in four DHs. It was further seen that abnormally more (173 *per cent*) supporting personnel were deployed at DH, Ranchi.

Short deployment of manpower in maternity wards of test-checked DHs indicated that due care was not given to manage delivery related complications, ensure satisfactory new-born care and manage other maternal health emergencies.

The Department did not furnish replies to the audit observations.

5.3.2 Clinical efficiency

5.3.2.1 Preparation of Partographs

A Partograph[57] enables the birth attendant to identify and manage complications of labour promptly or to take a decision to refer the patient to a higher medical facility, if required, for further management. Overall quality of care as provided by the health centres during labour is also monitored through the partograph.

Audit examined 1,598 bed head tickets (BHTs) of three sampled months (November 2016, February 2018 and May 2018) in the six test-checked DHs. It was seen that in 1,394 (87 *per cent*) cases, partographs were not plotted as shown in **Table 5.6**.

[56] Deoghar, Hazaribag, Palamu, Ramgarh and Ranchi.

[57] Partograph is a graphic recording of the progress of labour and the condition of the mother and foetus.

Table 5.6: Numbers of partographs plotted

Name of DHs	November 2016		February 2018		May 2018	
	BHT	No. of Partographs	BHT	No. of Partographs	BHT	No. of Partographs
Deoghar	80*	17*	96	23	101	3
East Singhbhum	19	13	32	24	24	15
Hazaribag	136	0	166	0	145	0
Palamu	130	2	41	0	115	4
Ramgarh	53	9	55	6	69	19
Ranchi	96	22	110*	22*	130	25
Total	**434**	**46**	**390**	**53**	**584**	**66**

Figures of BHT and Partograph related to February 2017
(Source: Test-checked DHs)

Non-preparation of partographs in most cases compromised the ability of hospitals to improve the quality of service in the labour room so as to reduce the chances of adverse pregnancy outcomes.

The Department while accepting (January 2021) the facts in respect of three DHs (Deoghar, Hazaribag and Palamu) stated that partographs were now being plotted. No replies were furnished in respect of the remaining three DHs (East Singhbhum, Ramgarh and Ranchi).

5.3.2.2 Management of preterm labour

As per NHM Guidelines, babies born before completion of 37 weeks of pregnancy are termed as "pre-term babies" and have numerous challenges including difficulty in feeding, maintaining body temperature and increased susceptibility to infections also leading to neonatal deaths. The Guidelines stipulates that these complications can largely be prevented by administering injection of Corticosteroids (Betamethasone Phosphate/ Dexamethasone) to an expectant mother when she is diagnosed with pre-term labour within 34 weeks of gestation.

Audit observed that out of 7,325 deliveries performed during three sampled months (November 2016, February 2018 and May 2018) in the six test-checked DHs, 520 deliveries were reported as pre-term deliveries within 34 weeks of gestation in the labour room registers/BHTs. However, in respect of 53 deliveries, gestational period of pregnancy was not found recorded in the labour room registers of three DHs (Deoghar, Hazaribag and Ramgarh).

Out of 520 pre-term deliveries within 34 weeks of gestation where administration of Corticosteroid injection was needed, the injection was administered only in 469 cases. Reasons for not administering the injection in the remaining 51 cases, which included 34 cases in DH, East Singhbhum comprising of 13 pre-term deliveries in February 2018 and 21 in May 2018 was not on record.

Thus, pre-term babies remained at risk of serious post-natal complications

and neonatal deaths due to non-administration of Corticosteroid to the mothers.

The Department accepted (January 2021) the facts in respect of DH, Hazaribag. No replies were furnished in respect of the remaining five test-checked DHs.

5.4 Post-Partum and Newborn care

5.4.1 Post-partum care

Prompt post-partum care is important for early detection and management of any post-delivery complication such as post-partum haemorrhage and eclampsia[58] which can lead to maternal death. MNH Toolkit specifies health check-up of the mother and infant to be monitored and recorded in the Post-natal care (PNC) register.

It was noticed that none of the six test-checked DHs maintained PNC register during 2014-19. Therefore, audit could not assess whether the prescribed post-partum health check-up of mothers and new-borns were carried out by the test-checked DHs.

The Department accepted (January 2021) the facts in respect of DH, Hazaribag. No replies were furnished in respect of the remaining five test-checked DHs.

5.4.2 Special New-born Care Unit

As per IPH Standards, a Special New-born Care Unit (SNCU) is primarily needed to reduce the cases of fatality among sick children within the first 28 days of life. SNCU should have at least 12 beds along with facility of day and night shelter for mothers of neonates. SNCU facilities should provide controlled environment, individual warming and close monitoring devices, intravenous fluid and medications by infusion pump, central oxygen, oxygen generators, bedside procedures like resuscitation and exchange transfusion, portable x-ray and in-house laboratory services.

State Health Mission, Jharkhand proposed (2010-11) to provide SNCU facilities in 12 DHs of which four [59] DHs were taken up for establishing SNCU. Further, 13 SNCUs[60] were proposed (March 2017) to be established during 2016-17 which included two DHs (Dumka and Palamu) already taken up during 2010-11. As such, SNCUs were proposed (between 2010-11 and 2016-17) to be established in 15 DHs. As informed (June 2020) by the Mission Director, NHM, Jharkhand, SNCUs in all 15 DHs were established

[58] A condition in which one or more convulsion to a pregnant woman suffering from high blood pressure, often followed by coma and posing a threat to the health of mother and baby

[59] Dumka, Gumla, Palamu and West Singhbhum.

[60] Bokaro, Deoghar, Dumka, Giridih, Godda, Hazaribag, Jamtara, Koderma, Latehar, Pakur, Palamu, Sahibganj and Simdega

and made functional between June 2015 and January 2019. SNCU facilities were yet to be provided in the remaining nine DHs[61] as of May 2020.

Audit observed in test-checked DHs that:

- Twelve bedded SNCUs were made functional at three DHs (Deoghar Hazaribag and Palamu) out of the six test-checked DHs between November 2017 and January 2018 whereas in three DHs (East Singhbhum, Ramgarh and Ranchi), purchase of equipment was under process as of June 2020.
- As per IPHS, 14 types of essential equipment for individual patient care are required in SNCUs. Details of availability and shortage of equipment in SNCUs of three DHs are shown in **Table 5.7**.

Table 5.7: Availability of equipment in SNCUs

Sl. No	Item	Required quantity	Deoghar	Hazaribag	Palamu
1	Servo-controlled Radiant Warmer (1 for each bed +2)	14	12	17	12
2	Low-Reading Digital Thermometer (1 for each bed)	12	12	1	5
3	Neonatal Stethoscope (1 for each bed +2)	14	12	17	12
4	Neonatal Resuscitation Kit and Neonatal laryngoscope (1 for each bed +2)	14	0	12	6
5	Suction Machine (1 for each bed)	12	4	7	4
6	Oxygen Hood (unbreakable-neonatal/infant size) (1 for each bed)	12	10	35	12
7	Non stretchable measuring tape (mm scale) (1 for each bed)	12	12	2	1
8	Infusion pump or syringe pump (1 for every 2 beds)	6	4	9	3
9	Pulse Oxymeter (1 for every 2 beds)	6	6	6	6
10	Double Outlet Oxygen Concentrator (1 for every 3 beds)	4	4	8	4
11	Double Sided Blue Light Phototherapy (1 for every 3 beds)	4	6	0	0
12	Generator (15 KVA)	1	1	1	0
13	CFL Phototherapy (1 for every 3 beds)	4	12	0	6
14	Horizontal Laminar Flow	1	0	0	0
	Total	**116**	**95**	**115**	**71**

(Source: Test Checked DHs)

It can be seen from **Table 5.7** that distribution of SNCU equipment among DHs was skewed as some equipment was in excess of requirement in DH, Hazaribag whereas DH, Palamu was facing shortages.

- As per IPHS, 11 types of general equipment and 9 types of disinfection

[61] Chatra, Dhanbad, East Singhbhum, Garhwa, Khunti, Lohardaga, Ramgarh, Ranchi and Saraikela

equipment are also required in SNCUs. Audit noticed non-availability of six types of general equipment with DH, Palamu, four with DH, Hazaribag and two with DH, Deoghar. Similarly, seven types of disinfection equipment were not available in DH, Palamu and five types each in DHs, Deoghar and Hazaribag. On the other hand, 15[62] type of SNCU equipment valued at ₹ 20.19 lakh, purchased (June 2016 to January 2017) with funds under NHM, were lying idle in DH Ramgarh as of March 2020 as the SNCU was not functional due to lack of manpower.

Analysis of records relating to services at SNCUs of three test-checked DHs (Deoghar, Hazaribag and Palamu) for two sampled months (February 2018 and May 2018) disclosed that out of 248 admitted patients, 59 were referred to higher facilities, 28 left the hospital against medical advice (LAMA) and 5 died.

Short/ non-availability of required equipment in SNCUs could be a reason behind patients being referred either to higher facilities or leaving the hospital against medical advice.

The Department stated that essential equipment were available at DH Palamu without giving list of equipment. The reply is not acceptable as it was found that only 71 out of 116 essential equipment were available as shown in **Table 5.7**. No replies were furnished in respect of the remaining two test-checked DHs.

5.4.3 Immunisation to Newborns

Newborns are to be administered doses of three vaccines viz., OPV[63], BCG[64], and Hepatitis 'B' on the day of birth which are termed as zero dose.

As per HMIS data, there were 1,40,671 newborns in the six test-checked DHs during 2014-19. Zero dose of OPV was administered to 1,48,556 newborns, BCG to 1,76,703 and Hepatitis B to 1,29,137 in the test-checked DHs during 2014-19. DHs were also administering zero dose vaccines to newborns other than those born in the hospitals which could be the reason behind more children being administered OPV and BCG vaccinations than the newborns in DHs. However, administration of zero dose of Hepatitis B was not ensured to all newborns (1,40,671) of the test-checked DHs.

Audit further examined 424 cases of deliveries during the sampled month (May 2018) from the labour room registers in five test-checked DHs except Ranchi where records was not made available to audit. It was noticed that

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62 Infantometer, Procedure trolley, Spot lamp, Portable x-ray machine, Multi-channel monitor, Electric heater/boiler, Autoclave drum, Radiant warmer, Oxygen hood, Infusion pump, Oxygen pump, Oxygen concentrator, Generator, Phototherapy unit and ECG unit.

63 Oral Poliovirus Vaccine.

64 Bacillus Calmette-Guerin (BCG) vaccine, used against tuberculosis.

zero dose of OPV were administered to 46 *per cent*, BCG to 41 *per cent* and Hepatitis B to 45 *per cent* of newborns. Administration of vaccines to newborns in test-checked DHs ranged from 41 to 73 *per cent* ***(Appendix 5.1)***. Thus, administering of zero dose vaccines to all newborns of test-checked DHs were not ensured. Additionally, 73 *per cent* of test-checked newborns were administered Vitamin K injections as required.

Further, as per Health and Family Welfare Statistics in India for the year 2019-20, Neo Natal Mortality Rate (NMR) and Under Five Mortality rate (U5MR) in 2017 was 20 and 34 respectively in the State against the average national NMR and U5MR of 23 and 37 respectively. Though, the performance of the State was better compared to the national average, it could have been improved by administering zero dose vaccines to all newborns.

The Department stated (January 2021) that immunization of newborns was being done as per norms at DH, Deoghar. The reply is not acceptable as only 80 out of 101 newborns test-checked were administered BCG vaccines as given in ***Appendix 5.1***. No replies were furnished in respect of the remaining four DHs.

5.4.4 Discharge of mothers within 48 hours of delivery

As per Guidelines for Antenatal care and Skilled Attendance at Birth and *Janani Shishu Suraksha Karyakram* (JSSK), the first 48 hours after delivery is vital for detecting any complication and its immediate management for care of the mother and baby (including immunization). During this period, the mother is guided for initiating breast feeding, advised for intake of extra calories and fluids besides adequate rest which are needed for the well-being of the baby and herself.

As per HMIS data, 77 to 89 *per cent* of mothers were discharged from the hospital within 48 hours of delivery during 2014-19 in the six test-checked DHs as shown in **Table 5.8**.

Table 5.8: Details of mothers discharged within 48 hours of delivery

Year	Total number of deliveries	Mothers discharged within 48 hours of delivery	Percentage of discharge within 48 hours of delivery
2014-15	25,516	21,895	86
2015-16	26,244	23,260	89
2016-17	27,317	23,424	86
2017-18	29,680	24,233	82
2018-19	33,384	25,821	77

(Source: HMIS database)

Audit test checked 422 delivery cases in five sampled months and noticed that 16 to 78 *per cent* of mothers were discharged within 48 hours of

delivery in five[65] test-checked DHs. In DH, Deoghar, details of discharge were not found mentioned in BHTs. As such, detection of any post-partum complication and immediate management of care needed for the well-being of the baby and the mother could not be ensured by DHs. Thus, quality PNC services were not being ensured in the DHs.

The Department accepted the facts in respect of DH, Hazaribag. No replies were furnished in respect of four DHs (East Singhbhum, Palamu, Ramgarh and Ranchi). Regarding DH Deoghar, the Department stated that the lactating mothers were being discharged after 48 hours of delivery and after conducting necessary investigation. The reply of the Department in respect of DH, Deoghar was not acceptable as HMIS data showed that 27,767 out of 29,254 mothers were discharged within 48 hours of delivery during 2014-19.

5.4.5 Delay in payment of Cash Assistance for Institutional Delivery

Government of India introduced (2005) the *Janani Suraksha Yojana* (JSY) with the objective of reducing maternal and neo-natal mortality by promoting institutional delivery among poor pregnant women. The Scheme integrates cash assistance to mothers for delivery and post-delivery care. Under the Scheme, beneficiaries of rural and urban areas were to be provided cash assistance of ₹ 1,400 and ₹ 1,000 respectively to meet the cost of delivery. The assistance was required to be disbursed effectively at the institution itself after delivery.

In the six test-checked DHs, Audit noticed that cash assistance of ₹ 9.89 crore was paid to 76,969 beneficiaries during 2014-19 as detailed in **Table 5.9**.

Table 5.9: Cash assistance paid to beneficiaries during 2014-19

Year	Number of Beneficiaries	Cash Assistance paid to beneficiaries
2014-15	9,043	1,13,91,100
2015-16	14,257	1,88,09,400
2016-17	16,410	2,12,82,700
2017-18	18,488	2,39,04,800
2018-19	18,771	2,35,02,800
Total	**76,969**	**9,88,90,800**

(Source: Test-checked DHs)

Audit scrutinised records related to 362 such beneficiaries for the period 2016-19 in the test-checked DHs and noticed delayed payment or non-payment of cash assistance to the beneficiaries as given in **Table 5.10**.

[65] East Singhbhum, Hazaribag, Palamu, Ramgarh and Ranchi

Table 5.10: Delay/Non-payment of cash assistance to beneficiaries

Year	Total no. of cases test-checked	Delay up to 30 days	Delay between 31-60 days	Delay between 61-180 days	Delay of more than 180 days	Not paid
2016-17	101*	32	18	25	24	1
2017-18	123	5	14	69	31	4
2018-19	138	6	8	79	42	3
Total	**362**	**43**	**40**	**173**	**97**	**8**

**** paid timely in one case***

(Source: Records of test-checked DHs)

It can be seen from **Table 5.10** that 310 beneficiaries were paid cash assistance after one month of delivery including 97 beneficiaries who were paid after more than six months. Further, eight beneficiaries were not paid as of March 2020. Delay/non-payment of cash assistance defeated the objectives of the Scheme.

The Department accepted the facts in respect of DH Deoghar and stated that the delay was due to non-availability of fund under JSY. No replies were furnished in respect of the other test-checked DHs.

5.4.6 Maternal Death and Death Audit

As per IPHS, a Medical Audit Committee shall be constituted in all hospitals for death review of all maternal deaths at the hospital. All maternal deaths should be reported after death review with complete information including cause of death.

Details of institutional deliveries and maternal deaths in the six test-checked DHs are given in **Table 5.11**.

Table 5.11: Cases of Maternal Death in test-checked DHs

Year	No. of institutional deliveries	No. of maternal death	Percentage
2014-15	25,516	32	0.13
2015-16	26,244	46	0.18
2016-17	27,317	36	0.13
2017-18	29,680	38	0.13
2018-19	33,384	24	0.07
Total	**1,42,141**	**176**	**0.12**

(Source: Test-checked DHs and HMIS)

It can be seen from **Table 5.11** that 176 maternal deaths occurred during 2014-19. These deaths occurred in four[66] out of six test-checked DHs. However, Medical Audit Committees were not constituted in these DHs to review the cause of maternal deaths. As a result, authorities remained unaware of the causes of maternal deaths based on which remedial action to reduce such events could have been taken.

The Department did not furnish replies in respect of three DHs (Deoghar,

[66] Deoghar-56, Hazaribag-48, Palamu-71 and Ranchi-01.

Hazaribag and Ranchi). Though it was stated that Medical Audit Committee was constituted in DH Palamu, no supporting documents or findings of the Committee was furnished to Audit.

5.5 Pregnancy outcomes

With a view to gauge the quality of maternity care provided by the hospitals, Audit test-checked the pregnancy outcomes in terms of live births and stillbirths pertaining to the period 2014-19. Findings in this regard are discussed below.

5.5.1 Stillbirths

Stillbirth rate is a key indicator of the quality of care during pregnancy and childbirth. Stillbirth or intrauterine foetal death is an un-favourable pregnancy outcome and is defined as complete expulsion or extraction of the baby from its mother with no signs of life. As per Health and Family Welfare Statistics in India, 2019-20 published by Ministry of Health and Family Welfare, GoI, as against the average national rate of 4 and 5 for the year 2015 and 2017 respectively, the average stillbirth rate of Jharkhand was one per 1000 pregnancy outcomes.

Audit observed that stillbirth rate was between 1.08 and 3.89 *per cent* in the six test-checked DHs during 2014-19 as given in **Table 5.12**.

Table 5.12: Stillbirths during 2014-19

Name of DH	Total number of deliveries	Total number of live births	Stillbirths	Percentage of Stillbirths
Deoghar	29,274	28,535	736	2.52
East Singhbhum	6,119	6,019	101	1.65
Hazaribag	36,488	35942	762	2.09
Palamu	29,312	28,800	1,144	3.89
Ramgarh	13,643	9,328	117	1.24
Ranchi	27,305	25,467	279	1.08

(Source: Test-checked DHs and HMIS)

It can be seen from **Table 5.12** that stillbirth rates were very high and ranged between 2.09 and 3.89 *per cent* in three DHs (Palamu, Deoghar and Hazaribag) during 2014-19 which was more than double the State average of one *per cent*. Reasons for stillbirths were stated to be eclampsia, wrapping of umbilical cord around the baby's neck, respiratory arrest etc.

The Department while accepting the facts in respect of DH, Palamu stated that due to lack of awareness and illiteracy, patients often seek medical intervention when it is too late. No replies were furnished in respect of three DHs (East Singhbhum, Ramgarh and Ranchi). In case of DHs, Deoghar and Hazaribag, it was stated that efforts would be made to decrease the rate of stillbirth in future. The reply in case of DH, Palamu is not acceptable as JSSK and other similar interventions were to be made available at the

village level for facilitating maternal services and safe deliveries in such cases.

To sum up, *several deficiencies were observed in management of pregnancy, child birth and post-partum care. Provision of intra-partum care also suffered due to lack of vital drugs and equipment. Management of complications during delivery in test-checked DHs was not ensured as partographs were not prepared. Majority of the still births were attributed to reasons that could have been addressed. In respect of post-natal care, inadequate documentation of the processes impaired the ability of the DHs to monitor the health of mothers and new-borns.*