

Healthcare Services

Introduction

The Public Health System in Jharkhand has been developed as a 3-tier system, *viz.* primary, secondary and tertiary level. Primary healthcare services are provided through Health Sub-Centres (HSCs), Primary Health Centres (PHCs) and Community Health Centres (CHCs). District Hospitals (DHs) are expected to provide secondary healthcare (specialist and referral services) to the community to achieve and maintain an acceptable standard of quality of care. Medical Colleges and Hospitals (MCH) as tertiary health care services, serve a dual purpose such as providing medical education for the Under Graduate (UG) and Post Graduate (PG) streams and provides specialised health care services to people.

AYUSH is the acronym for Ayurveda, Yoga & Naturopathy, Unani, Siddha, and Homeopathy, which are the six systems of medicine being practiced in India.

Indian Public Health Standards (IPHS) are a set of uniform standards envisaged to improve the quality of health care delivery in the country through Primary and Secondary healthcare such as HSCs, PHCs, CHCs and District Hospitals. Further, MCI/NMC is responsible for framing guidelines, regulations and determining minimum standards for Medical Colleges and Hospitals.

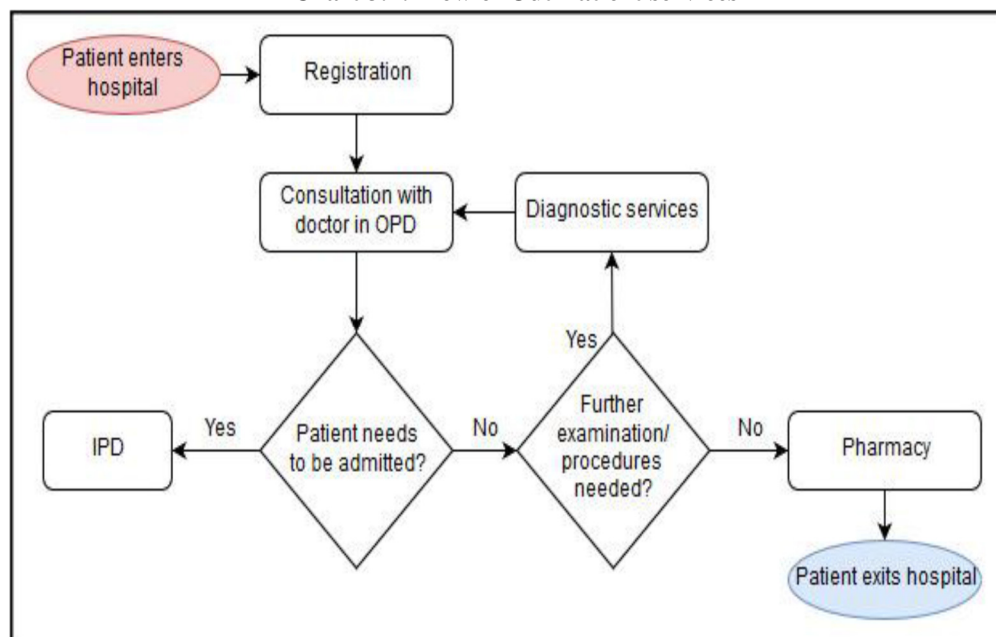
Audit findings, in regard to delivery of services, in the test-checked five DHs, 14 CHCs, 12¹⁶ PHCs, three MCHs, two AYUSH Colleges and six District Joint AYUSH dispensaries are discussed in the succeeding paragraphs. Emergency management is also discussed in this chapter.

3.1 Out-Patient Services

To avail Out-Patient services, a patient first registers at the Outdoor Patient Department (OPD). After registration, the concerned doctor examines the patient and prescribes diagnostic tests or drugs, as per requirement. Flow of Out-Patient services has been depicted in **Chart 3.1**.

¹⁶ Out of sampled 13 PHCs, PHC, Bilingbera in Gumla district was not functional.

Chart 3.1: Flow of Out-Patient services



Audit findings in regard to Out-Patient services have been discussed in the succeeding paragraphs.

3.1.1 Registration facility at OPD

The registration counter is the first point of contact of the patient with the hospital. Demographic details are recorded in the registration records and a unique identification number is given to each patient during the process of registration. The NHM Assessor’s Guidebook for Quality Assurance provides that the average time taken for registration should be 3-5 minutes and hence, the number of counters required should be worked out on a scale of 12-20 patient, per hour, per counter. As such, for every 120 patients per day, one registration counter is required.

Audit observed that the OPD timings were six hours, in the test-checked healthcare facilities, during FYs 2016-17 to 2021-22. The average daily patient load¹⁷, per functional registration counter, in the test-checked five DHs, 14 CHCs and nine¹⁸ PHCs, during FYs 2016-17 to 2021-22, is shown in **Table 3.1** and **Charts 3.2** to **3.4**.

¹⁷ Total number of patients during FYs 2016-17 to 2021-22/ number of working days in a year (280 days) x number of years (6 year) x number of functional counters.

¹⁸ No Doctor at PHC, Chutiyaro; PHC, Jura, did not furnish records; and PHC, Kondra, was not providing services, as its building had been occupied by Jharkhand Armed Police since 2013.

Table 3.1: Average daily patient load in test-checked DHs/CHCs/PHCs

Hospital	Number of out-patients during FYs 2016-17 to 2021-22	Average patient load per day	Average daily patient load per functional registration counter	No. of registration counters required as per patient load	Number of functional registration counters	Shortage of registration counters
District Hospitals (05 Nos.)						
Dumka ¹⁹	4,70,663	280	140	3	2	1
Garhwa	5,43,522	318	162	3	2	1
Gumla	8,86,553	528	264	5	2	3
Saraikeela Kharsawan	2,93,742	159	175	2	1	1
Simdega	3,38,091	201	201	2	1	1
Sub-total	25,32,571	--	--	15	8	7
Range	--	159—528	140—264	--	--	--
CHCs (14 Nos.)						
Govindpur	1,28,297	76	76	1	1	0
Jharia	1,34,695	80	80	1	1	0
Shikaripara	1,07,107	64	64	1	1	0
Jarmundi	1,07,143	64	64	1	1	0
Saraiyahat	1,54,964	92	92	1	1	0
Bhawnathpur	1,32,504	79	79	1	0	1
Manjhiaon	1,47,298	88	88	1	1	0
Bharno	1,87,831	112	112	1	1	0
Palkot	2,07,758	124	124	2	1	1
Raidih	2,34,239	139	139	2	1	1
Chandil	1,22,776	73	73	1	0	1
Nimdih	1,37,700	82	82	1	1	0
Bolba ²⁰	26,392	16	16	1	1	0
Jaldega ²¹	52,598	31	31	1	1	0
Sub-total	18,81,302	--	--	16	12	4
Range	--	16—139	16—139	--	--	--
PHC (9 Nos.)						
Bhaga	14,704	9	9	1	0	1
Maluti	26,785	16	16	1	0	1
Raikinari	16,041	10	10	1	0	1
Dighe	18,805	11	11	1	1	0
Kandi	59,057	35	35	1	0	1
Arangi	8,298	5	5	1	0	1
Chowlibasa	59,085	35	35	1	0	1
Hunter Patherdih	19,629	12	12	1	0	1
Bansjore	11,977	7	7	1	1	0
Sub-total	2,34,381	--	--	9	2	7
Range	--	5—35	5—35	--	--	--

(Source: Test-checked DHs/ CHCs/ PHCs)

Colour code: Red=Poor (Shortage>50%), Yellow= Satisfactory (Shortage ≤50%), Green=Good (Shortage=0%)

¹⁹ No. of patients shown against DH, Dumka are for the calendar years from 2016 to 2021.

²⁰ No. of patients are for the calendar years from 2016 to 2021.

²¹ No. of patients are for the calendar years from 2016 to 2021.

Chart 3.2: Availability of Registration counters in the test-checked DHs as of March 2022

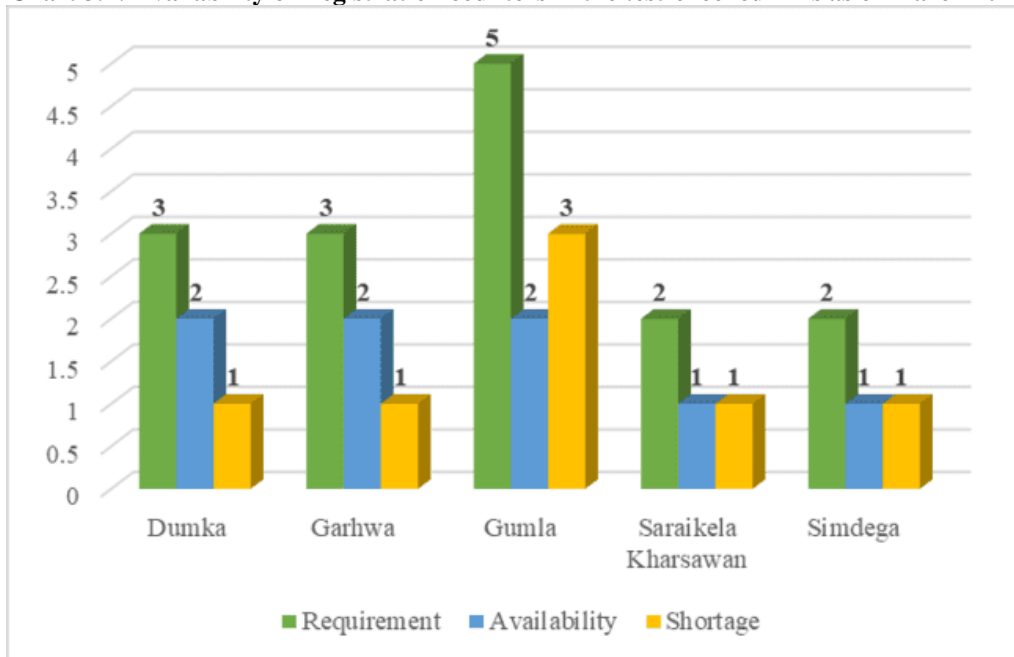


Chart 3.3: Availability of Registration counters in test-checked CHCs

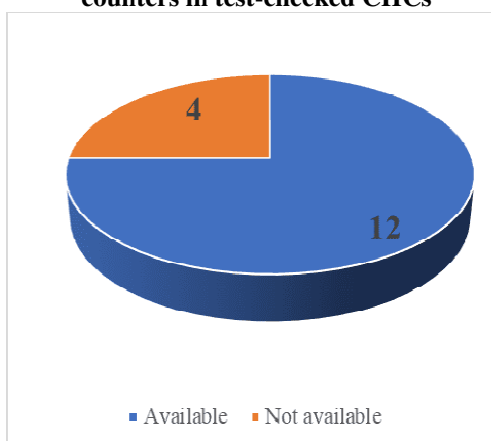
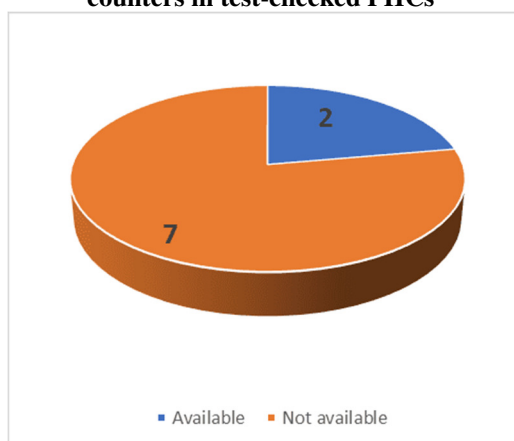


Chart 3.4: Availability of Registration counters in test-checked PHCs



It can be seen from **Table 3.1** and **Charts 3.2 to 3.4** that:

- In the test-checked DHs, the average daily patient load per registration counter ranged between 140 and 264, during FYs 2016-17 to 2021-22 and, hence, there was shortage of one to three counters in these DHs.
- Two CHCs and seven PHCs did not have registration counters. In the absence of registration counters, the serving doctors or ANMs were recording the demographic details of out-patients in the OPD registers.

Thus, due to shortage of registration counters, the average time taken for registration took up to one hour, instead of the prescribed maximum five minutes, as was noticed in the beneficiary surveys of 35 out of 65 OPD patients, in the test-checked DHs and 39 out of 112 OPD patients, in the test-checked CHCs.

3.1.2 Availability of Out-Patient Services

According to IPHS, a DH is expected to provide OPD services grouped into two categories, *viz.* essential and desirable²² services. Essential services *inter alia* includes Gynaecology, Paediatrics, Psychiatry, Ear-Nose-Throat (ENT), Dental, General Medicine, General Surgery, Ophthalmology and Orthopaedics services. Further, IPHS envisages that a CHC should have OPD services of General Medicine, General Surgery, Obstetrics & Gynaecology, Paediatrics and Dental services. Curative, preventive and promotive health care is to be provided through PHCs.

Audit analysis of availability of 10 OPD services²³ in the DHs of the State, revealed that 10 OPD services were available in six out of 23 DHs, nine were available in four DHs, eight were available in five DHs, six were available in one DH, four were available in four DHs, five services were available in one DH, three were available in one DH and two were available in one DH (*Appendix 3.1*). As such, 17 out of 23 DHs did not have all the required OPD services.

Further, availability of OPD services, in the test-checked DHs, CHCs and PHCs, as of March 2022, is shown in **Table 3.2**.

Table 3.2: Status of availability of Out-patient services

Availability of Out-patient services in District Hospitals						
DHs	General Surgery	Ophthalmology	Orthopaedics	Pediatrics	Psychiatry	ENT
Dumka	Y	Y	Y	Y	Y	Y
Garhwa	Y	Y	Y	Y	N	Y
Gumla	Y	Y	Y	Y	Y	N
Saraikela Kharsawan	N	Y	N	N	N	N
Simdega	N	N	N	Y	N	N
Availability of Out-patient services in CHCs						
District	Name of CHCs	General Surgery	Gynaecology	Pediatrics	Dental	Eye
Garhwa	Bhawnathpur	N	N	N	N	Y
	Manjhiaon	N	N	Y	N	Y
Gumla	Bharno	N	Y	N	Y	N
	Palkot	N	Y	N	N	N
	Raidih	N	N	N	N	N
Saraikela Kharsawan	Chandil	N	N	N	Y	N
	Nimdih	N	N	N	Y	Y
Simdega	Bolba	N	N	N	N	N
	Jaldega	N	N	N	N	N
Dumka	Shikaripara	N	N	N	N	N
	Jarmundi	N	Y	N	N	N
	Saraiyahat	Y	N	N	Y	N
Dhanbad	Govindpur	N	Y	N	Y	Y
	Jharia	N	Y	N	Y	N

Color code: Red=Not available Green=Available

²² Dermatology and Venereology (Skin & VD), Radiotherapy, Allergy, De-addiction Centre, Physical Medicine and Rehabilitation services, Tobacco Cessation Services, Dialysis Services and Post-Partum Unit with Post Natal and all Family Planning services.

²³ Gynaecology, Paediatrics, Psychiatry, Ear-Nose-Throat (ENT), Dental, General Medicine, General Surgery, Ophthalmology, Orthopaedics and Dermatology.

It can be seen from **Table 3.2** that:

- General surgery and Orthopaedics services, each, were not available in two out of five test-checked DHs, whereas Psychiatry and ENT services, each, were not available in three DHs.
- General surgery and Paediatric services were not available in 13 out of 14 test-checked CHCs whereas Gynaecology, Dental and Eye services were not available in eight to 10 CHCs.
- General Medicine service was also not available in four of the test-checked PHCs.

Thus, due to the absence of prescribed OPD services at DHs, CHCs and PHCs, the patients were either being referred to other government hospitals, or were dependent on private hospitals for these services. The Department accepted the facts and stated (March 2023) that due to shortage of doctors and allied posts, the OPD and IPD services were hampered. It was further stated that the Department had initiated the process for recruitment of doctors and allied posts to overcome the shortage of human resources and that, after recruitment, the OPD services at all hospitals would improve.

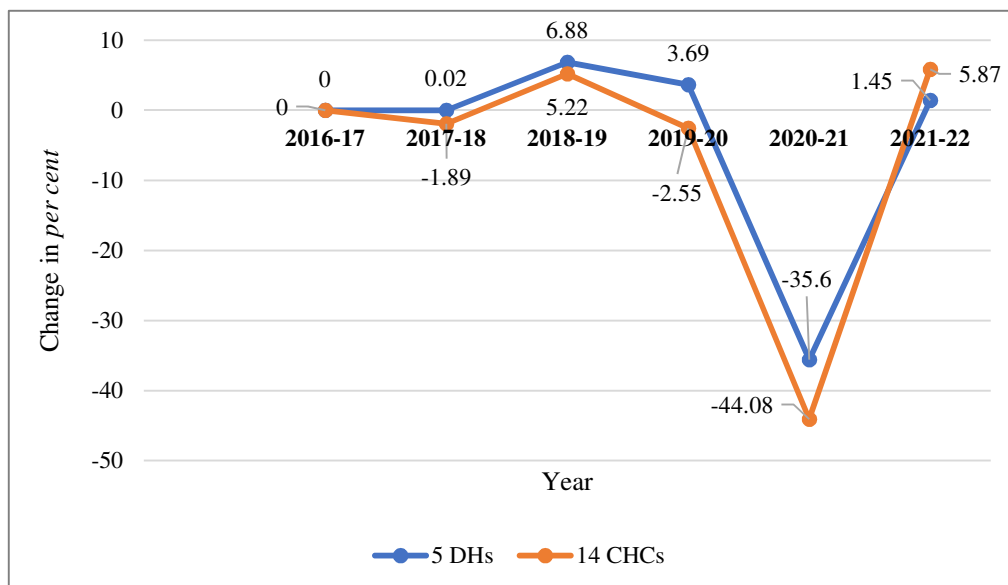
3.1.3 Patient load in OPD

Out-patient services were provided through OPD Clinics on a daily basis, in the healthcare facilities. Flow of out-patients in OPDs (details in **Appendix 3.2**), during FYs 2016-17 to 2021-22, in the test-checked DHs and CHCs, are summarised in **Table 3.3**.

Table 3.3: Number of out-patients in the test-checked DHs/CHCs

Financial Year	No. of test-checked DHs	No. of out-patients in DHs	Increase (YoY) (%)	No. of test-checked CHCs	No. of out-patients in CHCs	Increase (YoY) (%)
2016-17	5	4,50,997	--	14	3,63,358	--
2017-18	5	4,51,066	0.02	14	3,56,503	-1.89
2018-19	5	4,82,092	6.88	14	3,75,100	5.22
2019-20	5	4,99,880	3.69	14	3,65,540	-2.55
2020-21	5	3,21,935	-35.60	14	2,04,403	-44.08
2021-22	5	3,26,601	1.45	14	2,16,398	5.87

(Source: Records of test-checked DHs and CHCs)

Chart 3.5: Year-on-year change in OPD patients in the test-checked healthcare facilities

It can be seen from **Table 3.3** and **Chart 3.5** that the number of out-patients in the test-checked DHs, increased to 4,99,880 in FY 2019-20 from 4,50,997 in FY 2016-17 representing an increase of 48,883 (11 *per cent*) out-patients. Similarly, the number of out-patients in the test-checked CHCs, increased by 2,182 (0.6 *per cent*) during the same period. The significant decrease in OPD patients, during 2020-21 and 2021-22, was due to the COVID 19 pandemic.

However, despite increase in the number of patients in the OPDs, each OPD was being run by a single doctor leading to increase in the patient load per doctor per day, mainly in DHs. This led to low consultation time per patient, in the test-checked DHs, as discussed in the next paragraph. However, the patient inflow, in the CHCs and PHCs, was low. The Department did not furnish any replies.

3.1.4 Patient consultation time at OPDs

The National Institute of Public Finance and Policy had opined that consultation time spent with a doctor is an important attribute to determine satisfaction levels among patients. Longer contact time has been significantly associated with better recognition and handling of physical problems and patient empowerment. Short contact time with the healthcare personnel is a common source of patient's dissatisfaction with the consultation process.

Although the OPDs were being operated for six hours a day in the test-checked DHs, the Department had not fixed any standard time for consultation for each patient, in OPDs. Audit scrutiny of records of the sampled months²⁴ revealed heavy patient load per day per doctor, especially in general medicine OPD, ranging between 78 and 491 patients per doctor per day. The heavy patient load adversely impacted consultation time, which ranged between one and five

²⁴ May 2016, August 2017, November 2018, May 2019, August 2020 and November 2021.

minutes, per patient. Similarly, in the gynaecology OPD, patient load was also high and ranged between 75 and 245, while the consultation time ranged between two and five minutes, as detailed in **Appendix 3.3**.

Despite high patient load and low consultation time, the concerned health facilities did not take action to deploy more than one doctor in these OPDs. The Department did not furnish replies to the audit observation.

Audit further noticed wide variations in the patient load per doctor in the test-checked DHs/CHCs, as shown in **Table 3.4**.

Table 3.4: Average OPD patient load per doctor in the test-checked DHs/CHCs

Name of the Hospital	Year						Total number of out-patients	Number of OPD doctors per day	Average patient load per doctor per day ²⁵
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22			
DHs									
Dumka	92,823	89,804	93,576	1,02,240	51,949	40,271	4,70,664	9	31
Garhwa	89,568	93,491	95,871	92,980	94,662	76,950	5,43,522	8	40
Gumla	1,50,693	1,47,867	1,71,591	1,85,522	1,10,577	1,20,303	8,86,553	8	66
Saraikeela Kharsawan	61,218	61,838	56,302	55,859	24,501	34,024	2,93,742	4	44
Simdega	56,695	58,066	64,752	63,279	40,246	55,053	3,38,091	4	50
CHCs									
Govindpur	11,504	24,385	30,427	35,134	11,980	14,867	1,28,297	3	25
Jharia	30,732	27,001	25,630	24,594	12,212	14,526	1,34,695	3	27
Shikaripara	18,801	23,142	24,509	21,106	10,356	9,193	1,07,107	1	64
Jarmundi	20,314	15,768	16,401	22,570	16,319	15,771	1,07,143	1	64
Saraiyahat	32,260	30,642	31,408	28,548	16,979	15,127	1,54,964	1	92
Bhawnathpur	34,274	22,600	21,979	22,730	13,000	17,921	1,32,504	2	39
Manjhiaon	39,236	32,193	36,021	14,142	9,692	16,014	1,47,298	1	88
Bharno	35,930	36,690	33,757	33,266	27,968	20,220	1,87,831	3	37
Palkot	35,727	34,870	39,544	42,138	29,277	26,202	2,07,758	2	62
Raidih	36,897	43,068	43,635	49,351	31,844	29,444	2,34,239	1	139
Chandil	24,199	22,426	26,370	24,155	7,935	17,691	1,22,776	1	73
Nimdih	27,415	28,478	28,234	30,556	9,686	13,331	1,37,700	1	82
Bolba	5,222	4,970	5,932	6,012	2,429	1,827	26,392	1	16
Jaldega	10,847	10,270	11,253	11,238	4,726	4,264	52,598	1	31
Total	3,63,358	3,56,503	3,75,100	3,65,540	2,04,403	2,16,398	18,81,302		

(Source: HMIS data)

As evident from **Table 3.4**, average patient load per doctor per day in DHs and CHC, ranged between 31 and 66 patients and 16 and 139 patients, respectively. High patient load, as discussed above and shown in **Appendix 3.3**, may adversely affect the consultation time.

3.1.5 Lack of basic facilities in OPDs

According to IPHS guidelines, DHs, CHCs and PHCs should provide amenities like seating arrangement, potable drinking water, clean toilets and functional fans/coolers for the patients in OPD.

²⁵ Calculated on 280 days (365 days minus 52 Sundays and 33 State holidays)

Audit observed the absence of basic amenities, in OPD areas in the five test-checked DHs, 14 CHCs and 12 PHCs, as shown in **Table 3.5** and **Charts 3.6 to 3.7**.

Table 3.5: Non-availability of basic facilities in OPD premises as of July 2022

Facility-wise availability of Basic Services at Registration/OPD area					
Type of facility	Name of Facility	Water Purifier	Fan	Female Toilet	Male Toilet
DHs	Garhwa	Y	Y	N	Y
	Gumla	Y	Y	N	N
	Saraikela Kharsawan	Y	Y	Y	Y
	Simdega	Y	Y	Y	Y
	Dumka	Y	Y	N	Y
CHCs	Bhawnathpur	Y	Y	Y	Y
	Manjhiyaon	Y	Y	Y	Y
	Bharno	Y	Y	Y	Y
	Raidih	Y	Y	Y	Y
	Palkot	Y	Y	Y	Y
	Chandil	N	Y	Y	N
	Nimdih	N	Y	Y	Y
	Bolba	Y	Y	Y	Y
	Jaldega	Y	Y	N	Y
	Jarmundi	Y	Y	N	Y
	Saraiyhat	Y	Y	N	Y
	Shikaripada	Y	Y	N	Y
	Govindpur	Y	Y	Y	Y
	Jharia	Y	Y	Y	Y
PHCs	Arangi	N	Y	Y	Y
	Kandi	N	N	Y	Y
	Jura	N	N	Y	N
	Kondra	N	N	Y	Y
	Chawlibasa	N	N	N	N
	Hunter Patherdih	N	Y	Y	Y
	Bansjor	N	Y	Y	Y
	Raikinari	N	Y	Y	Y
	Dighe	N	Y	Y	Y
	Maluti	N	Y	Y	Y
	Chutiyaro	N	Y	N	Y
	Bhaga	N	Y	N	Y

Color code: Red=Not available Green=Available

(Source: Joint Physical Verification of test-checked healthcare facilities)

Chart 3.6: Availability of Male toilets in the test-checked DHs

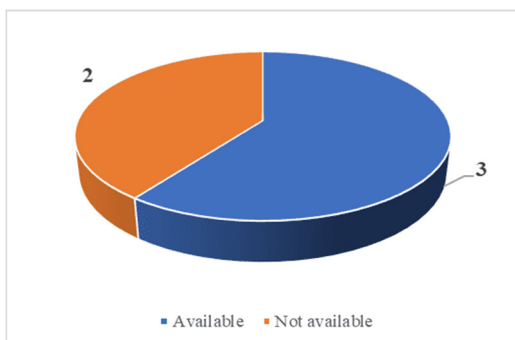


Chart 3.7: Availability of female toilets in the test-checked healthcare facilities



Thus, basic facilities, as envisaged in the IPHS, could not be provided to the OPD patients. The Department did not furnish replies to the audit observation.

Recommendation: *State Government may ensure availability of all OPD services in DHs/CHCs/PHCs, in line with the provisions of IPHS.*

3.2 In-Patient Services

To deliver quality health services in the public healthcare facilities, adequate and properly maintained Indoor Patient Departments (IPDs) are of critical importance. IPDs refer to the areas of the hospital where patients are accommodated after being admitted, based on doctor's/specialist's advice from the OPD, Emergency Services and Ambulatory Care.

Audit findings, relating to in-patient services, in the test-checked DHs, CHCs and PHCs, have been discussed in the succeeding paragraphs.

3.2.1 Availability of In-Patient services

As per the NHM Assessor's Guidebook and IPHS guidelines, a DH should provide specialist in-patient services, pertaining to Emergency, Burn, ENT, Gynaecology, General Medicine, General Surgery, Ophthalmology, Orthopaedics, Paediatrics and Psychiatry. Further, IPHS envisages General Medicine, General Surgery, Obstetrics & Gynaecology and Paediatric speciality services in the CHCs. IPHS also mandates the availability of General Medicine and Maternity Services in PHCs.

Audit noticed that these 10 in-patient services were available only in two out of 23 DHs in the State. Nine services were available in two DHs, eight in one DH, seven in five DHs, six in five DHs, five in one DH, four in two DHs, three in three DHs and two in two DHs (*Appendix 3.4*).

Availability of in-patient services, as of March 2022, in the five test-checked DHs, is shown in **Table 3.6**.

Table 3.6: Availability of In-patient services in the test-checked DHs

Name of DH	Emergency	Burn	ENT	Gynaecology	General medicine	General Surgery	Ophthalmology	Orthopaedics	Psychiatry
Dumka	Y	N	Y	Y	Y	Y	Y	Y	Y
Garhwa	Y	N	N	Y	Y	Y	Y	Y	N
Gumla	Y	N	N	Y	Y	Y	Y	Y	N
Saraikela Kharsawan	Y	N	N	Y	Y	N	N	N	N
Simdega	N	N	N	Y	Y	N	N	N	N

(Source: Records of test-checked DHs)

Colour code: Red= not available, Green= available

- It can be seen from **Table 3.6** that Burn services were not available in any of five test-checked DHs. Out of the five DHs, ENT and Psychiatry services, each, were not available in four DHs. Orthopaedics services, General Surgery & Ophthalmology services, each, were not available in two DHs.
- Paediatric services were not available in any of the 14 test-checked CHCs. General Surgery services were not available in 12 CHCs (except Bharno and Jarmundi) and General Medicine IPD services were not available in two CHCs (Govindpur and Chandil), out of the 14 test-checked CHCs. Two CHCs (Govindpur and Chandil) had only Obstetrics & Gynaecology IPD services, against the prescribed four services.
- None of the 12 test-checked PHCs were providing General Medicine in-patient services, while only 10²⁶ PHCs, out of the 12 test-checked PHCs, were providing maternity services. It was also seen that the remaining two PHCs were not providing maternity services, as no doctors had been posted.

As not all the prescribed in-patient services were available in the test-checked DHs, CHCs and PHCs, patients were dependent on other higher government healthcare facilities for availing these services, or were compelled to seek treatment in private hospitals. The Department accepted the facts and stated (March 2023) that due to shortage of doctors and allied posts, IPD services were hampered. It was also stated that the Department has initiated the process for recruitment of doctors and allied posts.

Recommendation: State Government may proactively synergise availability of specialised in-patient services in public healthcare facilities, to ensure access of the public to quality medical care.

²⁶ Arangi, Kandi, Maluti, Dighe, Raikinari, Jura, Kondra, Chowlibasa, Hunter Patherdih and Bansjore.

3.2.2 Operation Theatre

Operation Theatre (OT) is an essential service that is to be provided to the patients. Operation theatres usually have a team of surgeons, anesthetists, nurses *etc.*, to operate upon or care for the patients.

3.2.2.1 Availability of OTs

IPHS guidelines prescribe OTs for elective major surgery, emergency services and ophthalmology/ ENT for DHs. IPHS guidelines also prescribe availability of OTs in CHCs.

Audit noticed that all four OTs were available only in two out of 23 DHs. Three OTs were available in seven DHs, two in six DHs and one in eight DHs (*Appendix-3.5*).

Status of OTs, in the test-checked DHs, is shown in **Table 3.7**.

Table 3.7: Availability of OTs in the test-checked DHs, as of March 2022

Name of DH	Bed capacity	Availability of OTs			
		Elective major surgery	Emergency surgery	Ophthalmology	ENT
Dumka	300	Y	Y	Y	Y
Garhwa	100	Y	N	N	N
Gumla	100	Y	N	Y	N
Saraikela Kharsawan	100	Y	N	N	N
Simdega	100	Y	N	N	N

(Source: Test-checked DHs)

Colour code: Red= not available, Green=available

As can be seen in **Table 3.7**, OTs for elective major surgery were available in all the test-checked DHs. However, OTs for emergency surgery & ENT, each, were not available in four DHs and OTs for Ophthalmology were not available in three out of five test-checked DHs. Further, OTs were available in 13 out of the 14 test-checked CHCs, with the exception being CHC, Chandil.

Audit also observed that shortages of OT equipment and drugs ranged between 15 to 100 *per cent* and 9 to 74 *per cent* respectively in the test-checked DHs/CHCs, as discussed in **Chapter 4**.

The Department accepted the facts and stated (March 2023) that the Director-in-Chief (Health Services) has been instructed to take remedial action.

3.2.2.2 Documentation of OT procedures

The NHM Assessor's Guidebook prescribes that a surgical safety checklist, pre-surgery evaluation records and post-operative evaluation records, for OTs, should be prepared for each case. The status of documentation of OT procedures, in the five test-checked DHs, during the six sampled months, is given in **Table 3.8**.

Table 3.8: Documentation of OT procedures

Name of DH	Documentation of records (Yes/No)		
	Surgical safety checklist	Pre-surgery evaluation records	Post-operative evaluation records
Dumka	Not maintained	Not maintained	Not maintained
Garhwa	Not maintained	Not maintained	Not maintained
Gumla	Partially maintained	Partially maintained	Partially maintained
Saraikela Kharsawan	Maintained	Not maintained	Not maintained
Simdega	Partially maintained	Partially maintained	Not maintained

Colour code: Red = not maintained Yellow = Partially maintained, Green = Maintained

As shown in **Table 3.8**, only DH, Saraikela Kharsawan, had maintained the surgical safety checklist, while DH, Gumla, had maintained all the three documents partially. Thus, none of the test-checked DHs had maintained complete records regarding surgical safety and pre/post-surgery evaluation for OTs. Hence, it could not be ascertained whether safety procedures in OTs had been adhered to in the test-checked DHs. The Department did not furnish replies to the audit observation.

Further, the availability of selected surgery procedures in the test-checked DHs are shown in **Table 3.9**.

Table 3.9: Availability of surgical procedures in test-checked DHs as of March 2022

Sl. No.	Name of DHs	Availability of surgical procedures											
		Hernia	Hydrocele	Appendicitis	Haemorrhoids	Fistula	Intestinal Obstruction	Haemorrhage	Nasal packing	Tracheostomy	Foreign body removal	Fracture reduction	Putting splints/plaster cast
1.	Dumka	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y
2.	Garhwa	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y	Y
3.	Simdega	Y	Y	N	N	N	N	N	N	N	N	N	Y
4.	Gumla	Y	Y	Y	N	N	N	N	Y	N	N	Y	Y
5.	Saraikela Kharsawan	N	Y	N	N	N	N	N	Y	N	Y	N	N

Colour code: Green = Available, Red = not available.

It can be seen from **Table 3.9** that surgical procedures ranging from two to nine surgical procedures were not available in the test-checked DHs against the 12 selected surgical procedures. Audit further observed that the average number of surgeries per doctor per annum in the test-checked DHs, ranged from 179 to 530 patients, as shown in **Table 3.10**.

Table 3.10: Average surgeries per surgeon in the test-checked DHs

Sl. No.	Name of DH	Number of surgeons involved during 2016-22	Total number of surgeries done 2016-22 (six years)	Average surgery per surgeon per annum (approx.)
1.	Dumka	26	13,777	530
2.	Garhwa	12	5,887	491
3.	Gumla	20	4,834	242
4.	Saraikela Kharsawan	05	1,768	354
5.	Simdega	12	2,150	179

(Source: Data provided by DHs)

Audit further observed that, though OTs were available in 13 out of 14 test-checked CHCs, they were not being used for general surgery, as no post of surgeon has been sanctioned for CHCs. IPHS norms do not envisage provision of surgery services in PHCs.

3.2.3 Availability of Intensive Care Units

As per IPHS 2012, Intensive Care Unit (ICU) facility, in DHs, is essential for providing life-saving medical aid and nursing care, to critically ill patients. Audit noticed that ICUs were available in 17²⁷ out of the 23 DHs in the State.

Audit further observed that:

- ICUs were available only in two²⁸ out of the five test-checked DHs, as of March 2022. Another ICU in DH, Garhwa, had been made functional in May 2022.
- As per the report of the DIC, Health Services, a five-bedded ICU had been set up (March 2017) at DH, Simdega, with nine types of ICU equipment, valued at ₹ 35.56 lakh. Training had also been imparted (March 2017) to Doctors and Nurses. However, no such ICU was found (May 2022) during joint physical verification and items of equipment were found lying idle in the Store. The Deputy Superintendent, DH, Simdega, also confirmed (June 2022) non-existence of the ICU.

Shortage of equipment, drugs and consumables was also noticed in ICUs in the test-checked DHs, as discussed in **Chapter 4**.

Thus, non-functional ICUs, in three out of the five test-checked DHs, led to dependence of critical patients on private or other higher public healthcare facilities. The Department accepted the facts and stated (March 2023) that the Director-in-Chief (Health Services) has been instructed to take remedial action.

3.2.4 Emergency Services

According to IPHS 2012, a dedicated emergency room is to be available in each DH, for providing round-the-clock (24 x 7) emergency services to patients. Further, each CHC is also expected to provide round-the-clock emergency services. Though emergency wings were available in the DHs of the State, certain deficiencies, as discussed in the succeeding paragraphs, were seen in provision of emergency services in the test-checked DHs.

3.2.4.1 Availability of emergency services

According to IPHS, availability of Accident and Trauma Wards in the DHs, was to be ensured. Emergency services were to be provided for appropriate management of injuries, first aid, stitching of wounds, incision & drainage of

²⁷ DH- Bokaro, Deoghar, Dumka, East Singhbhum, Garhwa, Giridih, Godda, Gumla, Hazaribag, Koderma, Khunti, Latehar, Lohardaga, Pakur, Palamu, Ranchi and West Singhbhum.

²⁸ Dumka and Gumla.

abscess and stabilisation of the condition of the patient before referral. Further, as per SDG-3, the road accident death rate was to be halved by 2030.

The State Government assessed (December 2020) a requirement of 49 Trauma Centres (TCs), at the existing healthcare facilities situated on highways. Of these, 28 TCs were to be started in the existing healthcare facilities²⁹, eight in already constructed buildings³⁰ and new buildings were to be constructed for the remaining 13 TCs.

- JMHPCL initiated (August 2021) action for the procurement of machines and equipment for nine TCs, including eight TCs for which buildings were available. However, these TCs could not be operationalised due to non-deployment of the required manpower. It was further seen that, in most cases, proposals for deployment of manpower had been initiated, only in May 2022.
- Audit further noticed that 11 TCs were to be set up in the test-checked two MCHs³¹, five DHs³² and four CHCs³³. However, no TCs were operational in any of the test-checked facilities, as of August 2022.
- In PMCH, Dhanbad, GoI had sanctioned one TC in the 11th Five Year Plan, under the National Programme for Prevention and Management of Trauma and Burn Injuries (NPPMTBI). GoI had also released (March 2012) ₹ 80 lakh to PMCH, Dhanbad, against the total allocation of ₹ 6.16 crore. The State Government had also sanctioned (September 2016) 101 posts³⁴ of doctors, paramedics, nurses and other staff required for the TC. However, GoI did not release the remaining funds, as PMCH, Dhanbad, could not utilise the released funds. It was seen that the funds could not be utilised as the estimates had not been sanctioned and administrative approval had not been received. Thus, the envisaged TC had not been made functional, at PMCH, Dhanbad, as of March 2022.
- Audit noticed that the five test-checked DHs were providing primary emergency services to trauma patients in their Emergency wings, or

²⁹ Medical College and Hospital, DHs, SDH, CHCs and PHCs.

³⁰ RIMS, Ranchi; Nagar Untari, SBMCH, Hazaribag; Barhi, Kudu, Ramgarh, Ghatshila and Bahragora.

³¹ SNMMCH, Dhanbad and RIMS, Ranchi.

³² DHs: Dumka, Garhwa, Gumla, Saraikela Kharsawan and Simdega.

³³ CHCs: Chandil (Saraikela Kharsawan); Raidih (Gumla), Jarmundi (Dumka); Shikaripara (Dumka).

³⁴ General Surgeon:3; Orthopaedics:3; Anesthesia:3; Medical Officer: 8; Nurse A grade: 40; Nursing orderly: 16; OT Assistant: 5; Lab Technician: 2; X-ray technician: 4; Clerk: 2 and Safai Karmachari: 15.

referring the patients to the nearest higher government health facility, after providing primary treatment.

- Audit further noticed that emergency services were not being provided in three³⁵ out of the 14 test-checked CHCs, as of March 2022.

Thus, due to non-availability of Accident and Trauma Wards/Centres in the DHs, emergency services were restricted to primary care only, and specialised care was not being provided to patients. The Department accepted the facts and stated (March 2023) that tender had been invited for purchase of equipment for the 24 trauma centres and they would be made functional very soon.

3.2.4.2 *Triaging of patients and average turn-around time*

The NHM Assessor's Guidebook prescribes standard treatment protocol for triaging³⁶ of patients getting admitted in an emergency ward.

Audit observed that records of triaging were not being maintained in any of the five test-checked DHs during FYs 2016-17 to 2021-2022. In the absence of triaging and other related treatment records, Audit could not ascertain the average turn-around time of the patients admitted in the emergency ward.

Thus, assurance could not be drawn regarding the efficacy of the emergency services, in terms of classification of patients according to the criticality of their condition and the turn-around time. The Department did not furnish replies to the audit observation.

3.2.5 Burn Ward

According to IPHS 2012, availability of Burn Wards was to be ensured, in DHs, for burn management and rehabilitation. Burn Wards were available only in five³⁷ out of the 23 DHs in the State.

Audit observed that, out of the five test-checked DHs, the buildings constructed (between September 2015 and January 2017) for burn units of four DHs³⁸ had been handed over (March 2016 to May 2017) to the respective Civil Surgeons. However, the buildings constructed for the burn units were not being used for the specified purpose, in these DHs. Instead, these buildings were used as TB Centre, Vector Borne Disease Centre, Dialysis Centre and Paediatrics ICU. As the burn units could not be made functional in the test-checked DHs, burn patients were being referred to the nearest government higher health facility or had to avail of treatment in private hospitals. The Department did not furnish replies to the audit observation.

³⁵ CHC, Jarmundi, CHC, Bolba and CHC, Jaldega.

³⁶ 'Triaging' is the process of determining the priority among patients for their treatment in accordance with the severity of their condition or likelihood of recovery.

³⁷ Deoghar, Giridih, Godda, Palamu and Sahibganj.

³⁸ Except DH, Saraikela Kharsawan.

3.2.6 Ophthalmic Services

As per IPHS 2012, Ophthalmology service is one of the essential services to be provided in DHs. Further, CHCs are also expected to provide eye care services, like vision testing and refraction, for early detection of visual impairment.

Audit observed the following:

- **Availability of Ophthalmology diagnostic services/ tests**

IPHS prescribes the availability of three types of Ophthalmology diagnostic services/ tests³⁹, in DHs, and vision testing and refraction, for early detection of visual impairment, in CHCs.

Audit observed that all the three prescribed Ophthalmology diagnostic services were available in three DHs (Dumka, Saraikela Kharsawan and Simdega). Retinoscopy test was not available in DH, Gumla, for want of equipment. Further, though the required equipment and an Ophthalmic Assistant was available in DH, Garhwa, Ophthalmology services were not being provided, for reasons not available on records.

Out of the three types of Ophthalmic diagnostic services, one type (Refraction by using Snellen's chart) of service was being provided in eight⁴⁰ CHCs and another type (Ophthalmoscopy) was being provided only in one CHC (Raidih), out of the 14 test-checked CHCs. Retinoscopy was not being provided in any of the test-checked CHCs, as of March 2022.

Audit also observed that none of the test-checked DHs had all the equipment for Ophthalmology and the shortages ranged between 13 and 50 *per cent*, as discussed in **Chapter 4**. Further, shortage of required manpower was also observed in the test-checked DHs/CHCs as discussed in **Chapter 2**.

The Department did not furnish replies to the audit observation.

3.2.7 Dietary services

IPHS envisages providing of nutritious and well-balanced diet to all IPD patients, in DHs, CHCs and PHCs. The quality and quantity of diet are also required to be checked on a regular basis. IPHS also envisages one dietician, essentially in DHs, whereas, in CHCs, one dietician is desirable. The Health, Medical Education and Family Welfare Department, GoJ, resolved (October 2013 and March 2021) to provide nutritious and well-balanced diet, free of cost, to all in-patients, from State funds, under '*Samagri aur Aapurti*' Scheme. Further, diets to maternity patients were to be free of cost, under the *Janani Shishu Suraksha Karyakram* (JSSK). Dietary services were available in all the 23 DHs in the State.

³⁹ Refraction by using Snellen's chart, Retinoscopy and Ophthalmoscopy.

⁴⁰ Bhawnathpur, Bolba, Chandil, Jaldega, Jharia, Manjhiaon, Nimdih and Raidih.

Audit scrutiny of records, in the five test-checked DHs, 14 CHCs and 12 PHCs, revealed the following:

- Dietary services to maternity and other in-patients were provided through outsourced agencies, in four test-checked DHs, whereas they were being provided through an in-house kitchen in DH, Gumla.
- Out of the 14 test-checked CHCs⁴¹, nine CHCs⁴² were providing cooked foods prepared by hotels, and one CHC (Manjhiaon) was providing packed⁴³ food to maternity patients. Only three⁴⁴ CHCs, out of the 14 test-checked CHCs, were providing diet to other in-patients through outsourcing. CHC, Bolba, was not providing food to any in-patient, including maternity patients.
- Out of 12 PHCs, maternity services were available in 10 PHCs. However, only four⁴⁵ out of these 10 PHCs were providing diet to maternity patients.
- Dietician was available only in DH, Gumla, out of the five test-checked DHs.
- Four of the test-checked DHs (except Simdega) and none of the test-checked CHCs and PHCs had mechanisms for quality testing of the diet provided to in-patients.
- Audit conducted a beneficiary survey of 153 in-patients in DHs/ CHCs/ PHCs. Of these, 126 in-patients (82 *per cent*) confirmed distribution of food to them. However, 12 beneficiaries (10 *per cent*) stated that the quantity of food provided was not sufficient and 37 beneficiaries (29 *per cent*) stated that food was not being provided in terms of the diet prescribed by the doctor.

Thus, dietary services were not provided to in-patients other than maternity patients, in 11 out of the 14 test-checked CHCs. Non-provision of funds to CHCs, for diet from the State funds, was the main reason for non-supply of diet to in-patients. Further, six out of 10 PHCs did not provide diet to maternity patients, despite availability of funds under JSSK. The Department did not furnish replies to the audit observation.

⁴¹ CHC, Bolba and CHC, Raidih, did not provide dietary services during FYs 2016-17 to 2021-22. Further, two CHCs (Govindpur and Jharia) did not provide dietary service to in-patients from April 2020 onwards, on the ground of COVID-19.

⁴² Jarmundi, Saraiyahat, Shikaripara, Bharno, Palkot, Bhawnathpur, Chandil, Nimdih and Jaldega

⁴³ Dry fruits, biscuits, Horlicks, mixture *etc.*

⁴⁴ Shikaripara, Jarmundi and Saraiyahat

⁴⁵ PHC, Chowlibasa and Hunter Pathardih (cooked food was being provided from hotels) and in two PHCs (Arangi and Kandi), packed food, containing dry fruits, biscuits, Horlicks, mixture *etc.*, was being provided to maternity patients.

3.2.8 Evaluation of outcome indicators

IPHS stipulates preparation of outcome indicators like Bed Occupancy Rate (BOR), Leaving Against Medical Advice (LAMA) Rate, Referral Out Rate (ROR) *etc.*, by each DH.

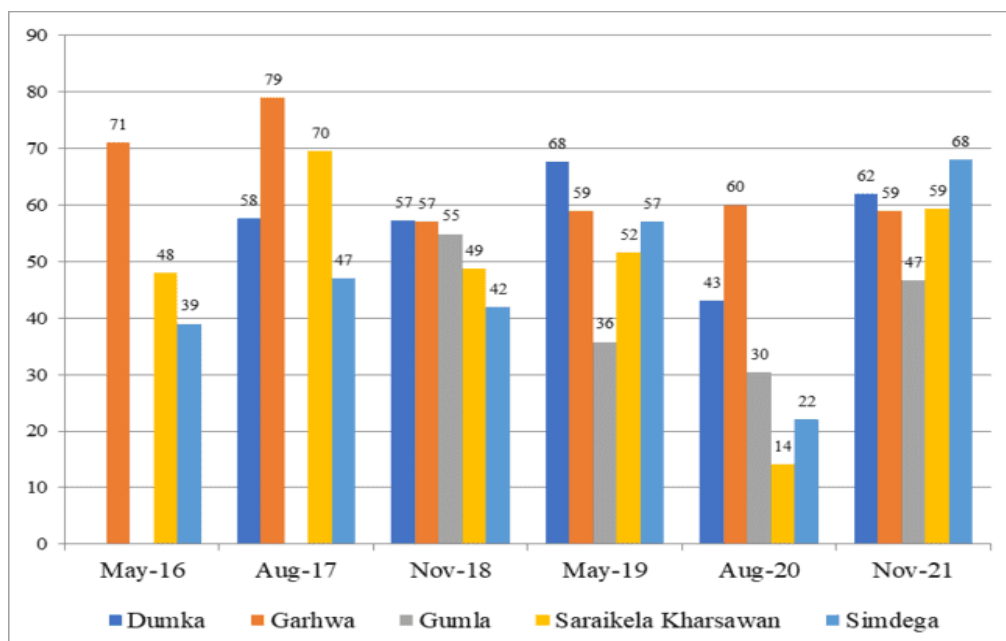
Audit findings, in regard to the above outcome indicators, against IPD services provided during FYs 2016-17 and 2021-22, in the five test-checked DHs, are discussed in the succeeding paragraphs.

- **Bed Occupancy Rate**

Bed Occupancy Rate (BOR) is an indicator of the productivity of hospital services and is a measure of verifying whether the available infrastructure and processes are adequate for the delivery of health services. As per IPHS, the BOR of hospitals should be at least 80 *per cent*.

The data regarding night stayal of patients for DH, Dumka, for the month of May, 2016, and DH, Gumla, for the month of May, 2016 and August, 2017 was not made available. As such, BOR of these months could not be calculated. However, as per available data, BOR, in respect of six sampled months⁴⁶, for all the five test-checked DHs, as calculated⁴⁷ by Audit, is shown in **Chart 3.8**.

Chart 3.8: BORs in the test-checked DHs of sampled months



(Source: Records of test-checked DHs)

It can be seen from **Chart 3.8** that none of the test-checked DHs had achieved the desired BOR of at least 80 *per cent* in the sampled months. However,

⁴⁶ May 2016, August 2017, November 2018, May 2019, August 2020 and November 2021. However, data in respect of DH, Dumka (for the month of May 2016) and in respect of DH, Gumla (for the months of May 2016 and August 2017), was not made available.

⁴⁷ $BOR = \frac{\text{Total Patient Bed Days}}{(\text{Functional Beds in DH} \times \text{Calendar Days in month})} \times 100$

improvement in BOR was visible in November, 2021, as compared to May, 2016, in all the DHs, except DH, Garhwa, where it decreased to 61 per cent in November, 2021, from 71 per cent in May, 2016. The Department accepted the facts and stated (March 2023) that remedial action will be taken.

- **Referral Out Rate**

As per IPHS norms, referral to a higher government health facility, denotes that the facilities for treatments were not available in the referring hospital. The Referral Out Rate (ROR), during the sampled months, for in-patients, calculated by Audit, in the test-checked DHs, is given in **Table 3.11**.

Table 3.11: Average RORs of sampled months for in-patients

DH	Average Referral out Rates (RORs) (percentage)
Dumka	Records not maintained
Garhwa	1
Gumla	11
Saraikela Kharsawan	7
Simdega	24

(Source: Records of test-checked DHs)

ROR= No of patients referred in the month x 100/ Total Admission

Note: Data for DH, Gumla, for the sampled month (May 16) was not available. The data of DH, Simdega, pertains to the male ward only.

It can be seen from **Table 3.11** that the average RORs of two (Gumla and Simdega) DHs was on the higher side, compared to the RORs of DHs, Garhwa and Saraikela Kharsawan, which indicated inadequate health care facilities in DHs, Gumla and Simdega. The Department accepted the facts and stated (March 2023) that remedial action will be taken.

- **Leave Against Medical Advice**

To measure the service quality of a hospital, the Leave against Medical Advice (LAMA) Rate⁴⁸ is evaluated. LAMA is the term used for a patient who leaves the hospital against the advice of the doctor/without informing the hospital authorities.

To assess this rate, Audit scrutinised the IPD registers of six sampled months, in the five test-checked DHs. The LAMA rates per thousand admissions of the test-checked DHs, in the sampled months, are shown in **Table 3.12**.

Table 3.12: LAMA Rates in the test-checked DHs

Name of DHs	LAMA Rate
Dumka	124 to 266
Garhwa	43 to 243
Gumla	54 to 145
Saraikela Kharsawan	117 to 160
Simdega	10 to 89

(Source: Records of test-checked DHs)

Colour code: Red = Very Poor, Yellow = Poor

⁴⁸ LAMA rate = Total No. of LAMA cases x 1,000 / Total No. of Admissions

Table 3.12 shows that the LAMA Rate was alarmingly high in three DHs (Dumka, Garhwa and Saraikela Kharsawan) while it was the least in DH, Simdega. Higher LAMA Rates may indicate poor quality of services in the concerned DHs. The Department accepted the facts and stated (March 2023) that remedial action will be taken.

3.2.9 Patient Satisfaction Surveys

According to IPHS, Patient Satisfaction Surveys (PSSs) had to be conducted and, after analysis of the results of the surveys, action plans had to be initiated, for quality and monitoring of the services imparted to the patients.

Audit scrutiny revealed that PSSs of out-patients/ in-patients had been conducted in four (except Garhwa) out of the five test-checked DHs and one (Raidih) out of the 14 test-checked CHCs, during FYs 2016-17 to 2021-22. Seven⁴⁹, out of 12 test-checked PHCs, had not conducted PSSs during 2016-17 to 2021-22, while the remaining five PHCs did not furnish records in this regard.

Details of PSSs conducted in the four test-checked DHs and CHC, Raidih, are shown in **Table 3.13**.

Table 3.13: Details of PSSs conducted

Test-checked DHs/ CHCs	No. of PSSs conducted	Period in which PSSs conducted
DHs		
Dumka	22	November 2021
Gumla	3,600	2016-17 to 2021-22
Saraikela Kharsawan	508	March 2019 to August 2019
Simdega	1,612	2019-20 to 2021-22
CHC		
Raidih	393	2018-19 to 2021-22

(Source: Test-checked DHs/CHCs)

Since surveys were not conducted in 21 out of the 26 test-checked⁵⁰ healthcare facilities, the difficulties faced by the patients, while availing OPD/ IPD services, could not be assessed and rectified. Further, DHs/ CHCs/ PHCs also missed the opportunity to identify gaps based on feedback by the patients and develop effective action plans for quality improvement in their respective healthcare facilities.

Further, the Ministry of Health and Family Welfare, GoI, had launched (2018) “*Mera Aspatal*” web portal, for capturing patient feedback for the services received at hospitals, through user-friendly multiple channels, such as, Short Message Service, Outbound Dialling mobile application and the web portal. Based upon the feedback provided by the patients, their satisfaction levels with various services and other aspects, are displayed on the *Mera Aspatal* web portal.

⁴⁹ Arangi, Bansjore, Chowlibasa, Hunter Pathardih, Jura, Kandi and Kondra.

⁵⁰ Five PHCs did not provide records

Audit noticed that no survey data for DHs, Dumka and Garhwa, was available on the *Mera Aspatal* web portal. Data of *Mera Aspatal*, for the remaining three test-checked DHs, for the period 2016-22, is given in **Table 3.14**.

Table 3.14: Results of Patient Satisfaction Surveys through *Mera Aspatal*

Name of DH	No. of patients surveyed during 2016-22	Very satisfied/ satisfied (in per cent)	Not satisfied	Percentage of dissatisfaction
Gumla	919	673 (73)	246	27
Saraikela Kharsawan	91	67 (74)	24	26
Simdega	806	590 (73)	216	27
Total	1816	1,330 (73)	486	27

(Source: *Mera Aspatal performance report*)

It can be seen from **Table 3.14** that the dissatisfaction level, with regard to the above three DHs, was about 27 per cent. The main areas of dissatisfaction amongst patients were staff behaviour, cleanliness and the cost of treatment. This indicated that patients were not getting sufficient and affordable health care at the DHs.

Further, records relating to the results of patient feedback on the *Mera Aspatal* web portal were not available for the test-checked CHCs and PHCs, due to which the areas of dissatisfaction, in regard to services, could not be ascertained. The Department did not furnish replies to the audit observation.

3.3 Diagnostic Services

Efficient and effective diagnostic services, both radiological and pathological, are amongst the most essential services for delivering quality treatment to the public, based on accurate diagnosis. The role of radiology is central to disease management, for detection, staging and treatment of diseases. Adequate availability of functional radiology equipment, skilled manpower and consumables, are key requirements for delivery of quality radiology services. Laboratory services are the backbone of any hospital for extending evidence-based health care to the public. As in the case of radiology services, availability of essential equipment and human resources, are the main drivers for delivery of quality laboratory services, through in-house laboratories. Diagnostic services were available in all the 23 DHs in the State.

Audit further observed that several essential radiology and laboratory tests were not being carried out in the test-checked DHs, CHCs and PHCs, due to lack of required equipment and skilled manpower. Significant audit findings, in this regard, are discussed in **Chapter 4**.

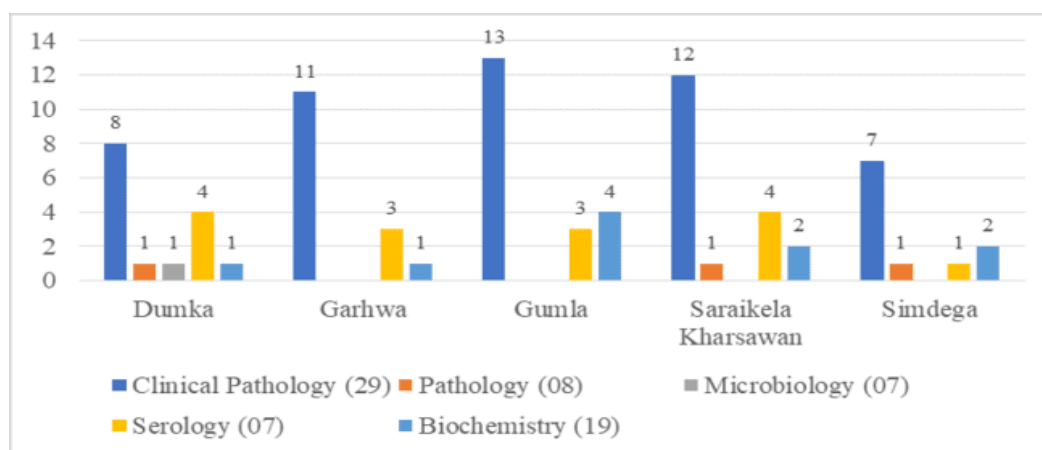
3.3.1 Availability of laboratory services

IPHS prescribes 70 and 29 types of laboratory tests, under five categories⁵¹, to be carried out in the DHs and CHCs, respectively. Further, 11 types⁵² of essential laboratory services are prescribed for PHCs. Laboratory services were available in all the 23 DHs in the State.

Audit noticed that the test-checked DHs and CHCs lacked the full range of laboratory services as detailed in *Appendix 3.6*. In this regard, Audit further observed that:

- Only 11 to 20 types of laboratory tests, against the prescribed 70 types, under five categories, were available in the test-checked DHs, as depicted in **Chart 3.9**.

Chart 3.9: Availability of laboratory services in the test-checked DHs as of March 2022

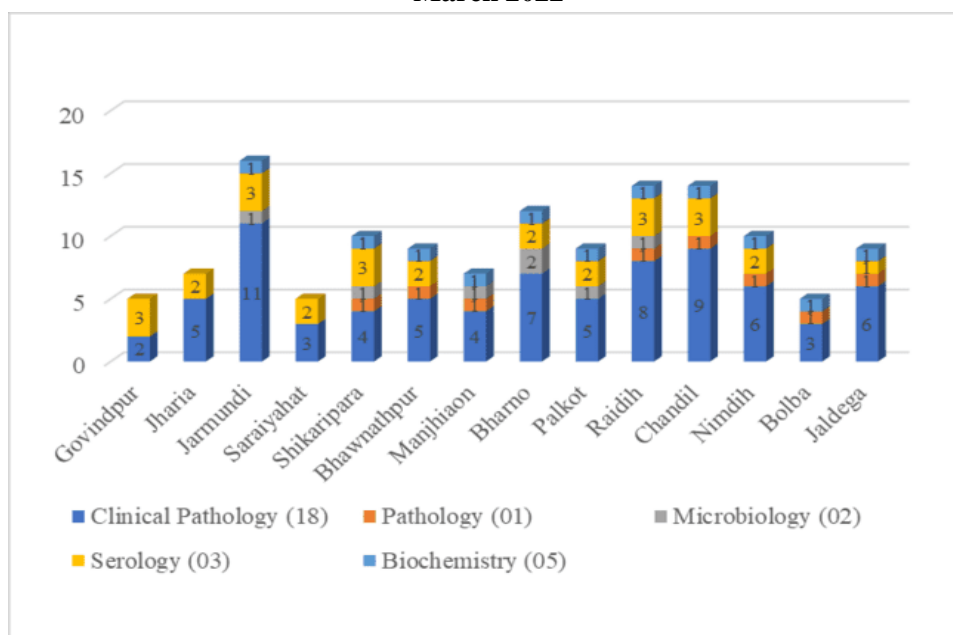


- It can be seen from **Chart 3.9** that none of the tests, under the pathology and microbiology sub-categories, were available in two and four DHs, respectively.
- Only five to 16 types of laboratory tests, out of the prescribed 29 types, under five categories, were available in the 14 test-checked CHCs, as shown in **Chart 3.10**.

⁵¹ Clinical Pathology: (DH: 29 tests, CHC: 18 tests); Pathology: (DH: 08 tests, CHC: 01 test); Microbiology: (DH: 07 tests, CHC: 02 tests); Serology: (DH: 07 tests, CHC: 03 tests) and Biochemistry: (DH: 19 tests, CHC: 05 tests)

⁵² (i) Routine Urine, stool and blood tests (Hb%, platelets count, total RBC, WBC, bleeding and clotting time) (ii) Diagnosis of RTI/STDs with wet mounting, Gram stains *etc.* (iii) Sputum testing for mycobacterium (iv) Blood smear examination malarial (v) Blood for grouping and RH Typing (vi) RDK for Pf malaria in endemic districts (vii) Rapid tests for pregnancy (viii) RPR test for Syphilis/YAWS surveillance (ix) Rapid test kit for fecal contamination of water (x) Estimation of chlorine level of water using ortho-toludine reagent and (xi) Blood sugar.

Chart 3.10: Availability of laboratory services in the test-checked CHCs as of March 2022



It can be seen from **Chart 3.10** that none of the tests under the pathology and microbiology sub-categories, were available in six and eight CHCs, respectively. Three tests under Serology, in two CHCs⁵³ and five tests under Biochemistry, in three CHCs⁵⁴, were not available.

Laboratory services were available only in five⁵⁵ out of the 12 functional test-checked PHCs. Further, out of the prescribed 11 types of laboratory services in PHCs, only two to seven types were available in these five PHCs. In the remaining seven PHCs⁵⁶, laboratory services could not be provided to the patients, in the absence of labs/ Lab Technicians (LT)/ equipment. Shortage of equipment ranged between 30 and 100 *per cent* in the test-checked DHs/CHCs/PHCs, as discussed in **Chapter 4**.

Due to non-availability of the full range of laboratory services, the Department engaged (April and May 2015) two private vendors⁵⁷, on PPP mode, for providing laboratory services in Medical College Hospitals (MCH) and DHs. However, no such arrangements were made for providing the full range of laboratory services in CHCs and PHCs.

Thus, the full range of in-house laboratory services were not available in any of the test-checked DHs, CHCs and PHCs. Non-availability of essential equipment, in the test-checked DHs/ CHCs/ PHCs, as discussed in the

⁵³ Manjhiaon and Bolba.

⁵⁴ Govindpur, Jharia and Saraiyahat.

⁵⁵ PHC, Bhaga (two types), PHC, Kandi (two types), PHC, Arangi (two types), PHC, Chowlibasa (two types) and PHC, Bansjore (seven types).

⁵⁶ Chutiyaro, Raikinari, Dighe, Maluti, Jura, Kondra and Hunter Pathardih

⁵⁷ M/s MEDALL and M/s SRL Limited.

succeeding paragraph, was among the reasons for the absence of laboratory services, in addition to the shortage of skilled human resources.

The Department accepted the facts and stated (March 2023) that funds for purchase of equipment, consumables *etc.* will be provided to strengthen the Radiology and Pathology services.

3.3.2 Quality assurance of laboratory services

According to IPHS norms, external validation of lab reports is to be done by the DHs/CHCs/PHCs, on a regular basis, with external agencies, for quality assurance in laboratory services. Further, according to the provisions of the NHM Free Diagnostics Services Initiatives, 2015, all laboratories in district hospitals are to be encouraged to achieve the National Accreditation Board for Testing and Calibration Laboratories (NABL) accreditation. A system of regular sample cross-check of diagnostic results, with identified reference laboratories, such as the All India Institute of Medical Sciences (AIIMS) or Christian Medical College (CMC), Vellore *etc.*, was also to be established, to ensure External Quality Assurance (EQA).

Audit observed that the test-checked DHs had not obtained NABL accreditation for their laboratories, as of March 2022. Further, none of the test-checked DHs, CHCs and PHCs, where laboratory services were available, had sent samples of their test results, to external agencies, for external assessment and validation, during FYs 2016-17 to 2021-22, for reasons not available on record. Thus, minimum quality standards in laboratory services were not ensured in these test-checked healthcare facilities. The Department did not furnish replies to the audit observation.

3.3.3 Waiting time and turn-around time

The time taken in receiving samples from the patients, after investigations being prescribed by the doctors, *i.e.* Waiting Time (WT) and the time taken in getting the investigations done and reporting the results to the patients *i.e.*, Turn-around Time (TAT), reflect the overall efficiency of laboratory services, in terms of patient satisfaction.

Audit observed that the in-house laboratory units of all the test-checked DHs/CHCs/PHCs, wherever available⁵⁸, had maintained registers manually, indicating the names of the patients, their registration numbers and the prescribed pathological tests. However, the time of sample collection, date of the samples having been sent to the lab, dates of receipts of test reports and dates of test reports having been handed over to patients, were, however, not recorded in these registers. As such, Audit could not ascertain the Waiting Time (WT) and Turn-around Time (TAT), for assessing efficiency of the laboratory

⁵⁸ Test-checked five DHs, 14 CHCs and five PHCs

services rendered. The Department did not furnish replies to the audit observation.

3.4 Maternity Services

The Maternal Mortality Ratio⁵⁹ (MMR), Neonatal Mortality Rate⁶⁰ (NMR), Under 5 Mortality Rate⁶¹ (U5MR) and Infant Mortality Rate⁶² (IMR) are important indicators of the quality of maternity services available. Antenatal care (ANC), Intra-partum care or delivery care (IPC) and Post-Partum Care (PPC) are the major components of facility-based maternity services. Since any pregnancy can develop complications at any stage, timely provision of obstetric care services is extremely important for management of such cases and, as such, every pregnancy needs to be cared for by a Skilled Birth Attendant⁶³ (SBA) during pregnancy, childbirth and the post-partum period. Maternity and child care services, with bed capacity of 21 to 200, were available in all the 23 DHs in the State, as of March 2022 (*Appendix 3.7*).

Audit scrutiny of records revealed deficiencies in resource management and clinical efficiency, as discussed in the succeeding paragraphs.

3.4.1 Antenatal care

ANC is the systemic supervision of a pregnant women (PWs) during pregnancy to monitor the progress of foetal growth and to ascertain the well-being of the mother and the foetus.

As per the Guidelines for Antenatal Care (ANC) and Skilled Attendance at Birth, 2010, ANC associated services mandate provision of iron folic acid (IFA) tablets and tetanus toxoid (TT) injection to a PW. The complete cycle⁶⁴ of ANC requires early registration of a PW with a hospital.

According to the Health Management Information System (HMIS), 13.63 lakh PWs were registered during FYs 2016-17 to 2021-22 in the six test-checked districts. Out of these registered PWs, 2.43 lakh (18 *per cent*) PWs had not been provided the complete cycle of ANC, 2.64 lakh (19 *per cent*) PWs were not provided first TT injections, 3.93 lakh (29 *per cent*) were not provided second TT injections and 2.98 lakh (22 *per cent*) PWs were not provided IFA tablets. As such, the PWs had not been provided adequate ANC services, in the healthcare facilities of the test-checked districts.

⁵⁹ Number of maternal deaths per 1,00,000 live births due to maternal causes.

⁶⁰ Number of deaths during the first 28 completed days of life per 1000 live births.

⁶¹ Number of deaths of infants (under five year) per 1,000 live births.

⁶² Number of deaths of infants (under one year) per 1,000 live births.

⁶³ SBAs are health workers such as ANMs, Staff Nurses *etc.*, who can identify and manage complications arising during pregnancy and child birth.

⁶⁴ Three ANCs upto FY 2016-17. From FY 2017-18, four ANCs are required.

Thus, lack of systemic supervision of a woman during her pregnancy, including monitoring of the progress of foetal growth and ascertaining the well-being of the mother and the foetus, could not be ruled out. The Department accepted the facts (March 2023).

3.4.2 Intra-partum care

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

For management of labour, to ensure a successful outcome for the mother and the baby, intra-partum care is needed. During this period, the woman and the baby go through physical as well as mental trauma and SBAs have the responsibility of providing the necessary care for the mother and the baby.

The Maternal and Newborn Health (MNH) Toolkit describes how to manage MNH services including specific requirements for equipment, supplies, human resources *etc.* The MNH Toolkit/ IPHS prescribes availability of drugs, consumables, equipment and manpower (doctors and supporting personnel), based on average monthly deliveries, for maternity services at DHs. Audit scrutiny revealed shortage of drugs, equipment and consumables ranging between 26 and 70 *per cent* in the test-checked DHs, as discussed in **Chapter 4**.

Shortage of essential drugs, equipment and consumables compromised the ability of the hospitals to provide emergency and critical care.

3.4.3 Post-Partum and Newborn care

- *Post-partum care*

Prompt post-partum care is important for early detection and management of any post-delivery complications, such as, post-partum hemorrhage and eclampsia⁶⁵ which can lead to maternal death. The 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 three of the test-checked DHs⁶⁶ did not maintain PNC registers during FYs 2016-17 to 2021-22. DHs, Dumka and Gumla, did not provide the related records. As such, Audit could not assess whether the prescribed post-partum health check-ups, of mothers and newborns, had been carried out by these DHs.

- *Newborn Care*

As per IPHS, Special Newborn Care Units (SNCUs) are primarily needed to reduce cases of fatality among sick children, within the first 28 days of life.

⁶⁵ Seizures that occur during a woman's pregnancy or shortly after giving birth.

⁶⁶ Garhwa, Saraikela Kharsawan and Simdega.

Further, the SNCUs, in DHs, should have at least 12 beds.

Audit observed that:

- Four of the test-checked DHs had the required twelve-bedded SNCUs, whereas DH, Dumka, had 15 beds. Details of newborns admitted, referred out, LAMA and newborn deaths, during FYs 2016-17 to 2021-22, in the five test-checked DHs, are detailed in **Table 3.15**.

Table 3.15: Newborns admitted, referred out, LAMA and newborn deaths

DH	Period	Total No. of newborns admitted	Total No. of newborns referred out	Total No. of LAMA cases	Total number of deaths in SNCUs
Dumka	April 2018 to March 2022	2,489	388	363	225
Garhwa	April 2021 to March 2022	411	89	63	46
Gumla	April 2016 to March 2022	1,675	387	98	152
Saraikela Kharsawan	March 2021 to March 2022	44	06	01	00
Simdega	April 2018 to March 2022	1,627	342	56	79
Total		6,246	1,212	581	502

Colour code: Red = Very poor, Yellow = poor, Green = Good

It can be seen from **Table 3.15** that, out of 6,246 newborns admitted in the SNCUs, during FYs 2016-17 to 2021-22, 1,212 newborns (19 per cent) were referred to higher healthcare facilities, 581 newborns (nine per cent) had left the hospital against medical advice (LAMA) and 502 newborns (eight per cent) had not survived.

3.4.4 Discharge of mothers within 48 hours of delivery

As per Guidelines for Antenatal care and Skilled Attendance at Birth and the *Janani Shishu Suraksha Karyakram*⁶⁷ (JSSK), the first 48 hours after delivery are vital for detecting any complications and for their immediate management, for care of the mother and the newborn baby (including immunization). During this period, the mother is guided for initiating breast feeding, advised for intake of extra calories and fluids, in addition to adequate rest, which are needed for the well-being of the baby and herself.

As per the Health Management Information System (HMIS) data, the total number of institutional deliveries in Jharkhand, during FYs 2016-17 to 2021-22, was 34.29 lakh, out of which 27.55 lakh (80 per cent) mothers were discharged from the hospital within 48 hours of delivery. In all the six test-checked districts, 76 to 88 per cent of mothers were discharged from the hospital within 48 hours of delivery, during FYs 2016-17 to 2021-22, as shown in **Table 3.16**.

⁶⁷ Scheme launched (June 2011) by GoI which entitles all pregnant women, delivering in public health institutions, to absolutely free and no expense delivery including Caesarean section.

Table 3.16: 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
2016-17	1,00,945	85,854	85
2017-18	1,19,096	1,04,946	88
2018-19	1,11,136	93,549	84
2019-20	1,11,539	93,783	84
2020-21	1,58,842	1,20,170	76
2021-22	1,63,492	1,24,394	76
Total	7,65,050	6,22,696	81

(Source: HMIS database)

Colour code: Red = Very poor >75%

Audit further noticed that the ratio of discharge of mothers from the hospital within 48 hours of delivery, was very high in the six test-checked districts and ranged between 35 to 93 *per cent*, as detailed in **Appendix 3.8**. As such, detection of any post-partum complications and immediate management of care needed for the well-being of the mother and the newborn baby, could not be ensured. The Department accepted the facts and stated (March 2023) that after delivery, patients were not interested to stay on in the hospitals. It was further stated that instruction have been issued to motivate PWs to stay in the Hospitals after delivery.

3.4.5 Maternal Death and Maternal Death Review

As per IPHS, review of all maternal deaths that occur in a hospital is to be done on a fortnightly basis, by the Medical Death Review Committee constituted for the purpose.

Details of institutional deliveries and maternal deaths, in the test-checked healthcare facilities, during FYs 2016-17 to 2021-22, are given in **Table 3.17**.

Table 3.17: Maternal Deaths in the test-checked hospitals

Nature of Health Institutions	No. of deliveries	No. of maternal deaths	No. of maternal death reviews conducted (percentage)
DHs (05 Nos.)	90,337	177	69 (39)
CHCs (14 Nos.)	74,102	2	2 (100)
PHCs ⁶⁸ (09 Nos.)	10,300	0	0 (0)

(Source: Test-checked DHs/CHCs/PHCs).

Colour code: Red = Poor < 50%, Green = Satisfactory

It can be seen from **Table 3.17** that 177 maternal deaths had occurred in the five test-checked DHs, during FYs 2016-17 to 2021-22, but reviews had been conducted only for 69 (39 *per cent*) deaths. DH, Gumla, had conducted reviews for all 59 maternal deaths. However, DHs, Dumka and Garhwa, had not conducted reviews of 50 and 46 maternal deaths, respectively.

⁶⁸ Details of PHCs, Bhaga, Chutiyaro and Kondra, were not made available.

Thus, due to deficiencies in conducting maternal death reviews, the authorities remained unaware of the causes of maternal deaths, based on which remedial action, aimed at reducing such events in future, could have been taken. The Department accepted the facts (March 2023).

3.4.6 Delay in payment of cash assistance for institutional delivery

The 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 five test-checked DHs and 14 CHCs, Audit noticed that cash assistance of ₹ 23.49 crore had been paid to 1,86,258 beneficiaries, during FYs 2016-17 to 2021-22 (*Appendix 3.9*), as detailed in **Table 3.18**.

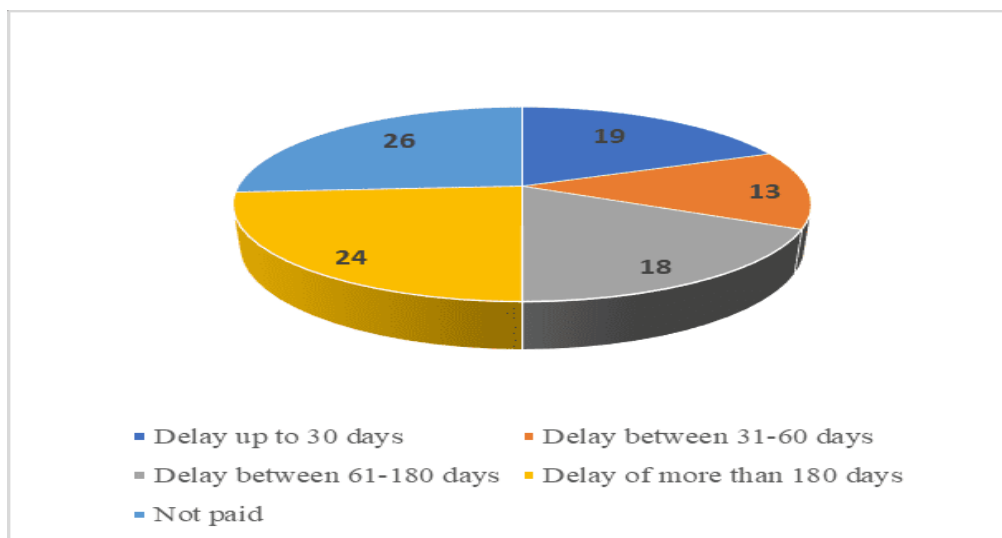
Table 3.18: Cash assistance paid to beneficiaries during FYs 2016-17 to 2021-22

Financial Year	Number of beneficiaries	Cash assistance paid to beneficiaries (in ₹)
Five test-checked DHs		
2016-17	10,644	1,48,02,750
2017-18	10,995	1,49,15,500
2018-19	11,845	1,64,02,000
2019-20	13,622	1,88,70,875
2020-21	10,820	1,43,62,950
2021-22	7,631	1,04,23,900
Total (I)	65,557	8,97,77,975
14 test-checked CHCs		
2016-17	17,867	2,11,99,300
2017-18	19,817	2,33,47,000
2018-19	21,626	2,60,41,600
2019-20	23,246	2,92,43,600
2020-21	21,489	2,64,91,000
2021-22	16,656	1,88,48,517
Total (II)	1,20,701	14,51,71,017
Grand Total (I+II)	1,86,258	23,49,48,992

(Source: Test-checked DHs/CHCs)

Audit scrutinised records related to 4,072 such beneficiaries, for the period from FY 2016-17 to FY 2021-22, in the test-checked five DHs/four CHCs⁶⁹ and noticed delayed payment or non-payment of cash assistance to the beneficiaries, as shown in **Chart 3.11**.

⁶⁹ Records of date of payment of cash assistance to the beneficiaries of ten CHCs was not made available.

Chart 3.11: Delay in payment of cash assistance to beneficiaries (in Percentage)

It can be seen from **Chart 3.11** that 26 per cent of the beneficiaries (1,078) had not been paid cash assistance, as of August 2022, whereas 55 per cent of beneficiaries (2,221) had been paid after one month of delivery, including 24 per cent (956) beneficiaries who had been paid after more than six months (**Appendix 3.9**). Delay/non-payment of cash assistance defeated the objectives of the Scheme. The Department accepted the facts and stated (March 2023) that instructions have been issued to expedite timely payment of cash assistance under JSY.

Recommendation: Prescribed intra-partum and post-partum care should be ensured, to minimise adverse pregnancy outcomes. Payment of cash assistance under JSY should be ensured prior to discharge of beneficiaries from the concerned healthcare facilities.

3.5 Oxygen Services

Oxygen is an essential drug, administered when people with breathing issues cannot get enough oxygen naturally. As per the NHM Assessor's guidebook, availability of central oxygen supply and vacuum supply needs to be assessed in critical areas, like OTs and ICUs. Medical oxygen is mainly supplied through oxygen cylinders, oxygen concentrators and central sources (liquid tanks and oxygen generators).

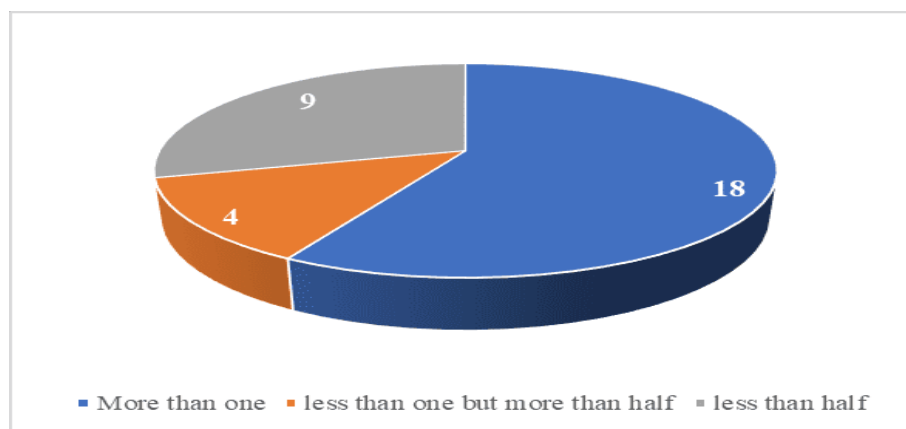
The availability of oxygen cylinders and oxygen concentrators, in the test-checked DHs/CHCs/PHCs, is indicated in **Table 3.19** and **Chart 3.12**.

Table 3.19: Availability of oxygen cylinders and concentrators

Hospitals	2016-17 to 2019-20		2020-21		2021-22	
	Oxygen cylinders	Oxygen concentrators	Oxygen cylinders	Oxygen concentrators	Oxygen cylinders	Oxygen concentrators
Five test-checked DHs						
Dumka	26	NA	60	07	495	64
Garhwa	30	16	30	43	30	43
Gumla	NA	NA	36	17	95	152
Saraikela Kharsawan	NA	03	40	14	171	45
Simdega	30	02	30	02	80	94
14 test-checked CHCs						
Govindpur	05	NA	05	NA	05	23
Jharia	06	NA	06	NA	06	37
Shikaripara	NA	NA	00	NA	100	71
Jarmundi	NA	NA	00	NA	122	86
Saraiyahat	02	NA	02	NA	132	80
Bhawnathpur	06	01	16	01	26	35
Manjhiaon	20	02	20	37	20	37
Bharno	NA	NA	NA	03	37	37
Palkot	NA	NA	NA	NA	32	31
Raidih	NA	NA	05	04	35	58
Chandil	05	00	05	02	25	29
Nimdih	07	00	07	03	07	31
Bolba	02	00	06	00	115	21
Jaldega	16	00	42	12	133	25
12 functional test-checked PHCs						
Chutiaryo	NA	NA	NA	NA	00	01
Bhaga	NA	NA	NA	NA	00	00
Maluti	00	NA	00	NA	00	NA
Raikinari	01	NA	01	NA	01	NA
Dighe	00	NA	00	NA	00	NA
Kandi	02	00	02	03	02	03
Arangi	00	00	01	00	01	01
Jura	01	NA	01	NA	01	NA
Kondra	01	NA	01	NA	01	NA
Chowlibasa	01	00	01	00	01	00
Hunter Pathardih	00	00	04	00	04	01
Bansjore	04	00	06	00	26	06

Color code: Green - Very good, Yellow - Good Red - not sufficient

Chart 3.12: Availability of Oxygen per bed in the test-checked health facilities



It can be seen from **Table 3.19** and **Chart 3.12** that oxygen cylinders were available in three test-checked DHs, nine CHCs and six PHCs, during FYs 2016-17 to 2019-20. Oxygen concentrators were available only in of the three

test-checked DHs and two CHCs, during the same period. Audit further noticed that both - oxygen cylinders and oxygen concentrators - were available in all the five test-checked DHs, 14 CHCs and four PHCs, as of March 2022. Eight PHCs had oxygen cylinders and five PHCs had oxygen concentrators, as of March 2022.

It was also noticed that Pressure Swing Absorption (PSA) oxygen generation plants had been established in all the test-checked DHs, during FYs 2021-22, but were not functional, as discussed in **Chapter 5** on Healthcare Infrastructure. The Department did not furnish replies to the audit observation.

3.6 Mobility Services

3.6.1 Mobile Medical Units

Mobile Medical Units (MMUs) envisage provision of a range of health care services for populations living in remote, inaccessible, unserved and underserved areas, mainly with the objective of taking health care service delivery to the doorsteps of these populations. With the launch of the National Urban Health Mission (NUHM), MMUs services are also intended to cater to the urban poor and vulnerable population and provide fixed services in areas where there is no infrastructure. Scrutiny of records revealed that 98 MMUs were operational in the State, as of March 2022. The status of MMUs, in the test-checked districts, is shown in **Table 3.20**.

Table 3.20: Status of MMUs in the test-checked districts, as of March 2022

District	MMUs available	Functional MMUs	Non-functional MMUs
Dhanbad	5	3	2
Dumka	3	1	2
Garhwa	3	0	3
Gumla	4	2	2
Saraikela Kharsawan	5	5	0
Simdega	2	0	2
Total	22	11	11

Colour code: Red = Poor, Yellow = Satisfactory, Green = Good

It can be seen from **Table 3.20** that, out of the 22 MMUs available in the test-checked districts, only 11 MMUs (50 per cent) were functional, as of March 2022. The non-functional MMUs in three districts (Gumla, Simdega and Garhwa), as well as the poor condition of a functional MMU at Saraikela Kharsawan, are shown in the photographs 3.1 to 3.4 below:

Photograph 3.1



Non-functional MMU at Gumla District (05.10.2022)

Photograph 3.2



Non-functional MMU at Simdega (12.06.2022)

Photograph 3.3



Non-functional MMU at Garhwa District (21.04.2022)

Photograph 3.4



Poor condition of MMU at Saraikela Kharsawan (02.06.2022)

During test-check of records of four MMUs of two districts⁷⁰, Audit noticed that:

- Lady doctors and radiographers were not available in these MMUs. As such, ANC and child immunisation could not be provided during FYs 2016-17 to 2021-22.
- There was shortage of required equipment, ranging between 19 *per cent* and 23 *per cent*, in two MMUs of Saraikela Kharsawan. Further, 33 to 52 *per cent* of the available equipment was non-functional.

Thus, the objective of providing health care services through MMUs, to populations living in remote, inaccessible, unserved and underserved areas, remained unachieved. The Department accepted the facts and stated (March 2023) that 75 new MMUs have been sanctioned and non-functional MMUs would be made functional.

3.6.2 Ambulance Service

As per IPHS, DHs are to be well-equipped with Basic Life Support (BLS) and desirably one Advanced Life Support (ALS) ambulance. Ambulances are to be

⁷⁰ Gumla (two MMUs) and Saraikela Kharsawan (two MMUs)

provided with a communication system, along with required manpower. In CHCs, round-the-clock ambulance services, with basic life support, are to be made available. Further, it is desirable that the PHCs have ambulance facilities for transport of patients, for timely and assured referral to functional First Referral Units (FRUs), in case of complications during pregnancy and childbirth. The ambulances are to be equipped with drugs and equipment, as per their categorisation.

Requirement and availability of Ambulances and manpower⁷¹ in the test-checked DHs/ CHCs are given in **Table 3.21**.

Table 3.21: Requirement and availability of Ambulances and manpower as of March 2022

Healthcare facility	Number of ambulances required	Number of ambulances available	Shortage of ambulances	Number of drivers available
Five test-checked DHs				
Dumka	3	4	-	5
Garhwa	3	2	1	2
Gumla	3	3	-	5
Saraikela	3	4	-	3
Kharsawan	3	4	-	3
Simdega	3	4	-	3
14 test-checked CHCs				
Govindpur	1	0	1	0
Jharia	1	0	1	0
Shikaripara	1	1	0	1
Jarmundi	1	1	0	1
Saraiyahat	1	3	-	2
Bhawnathpur	1	2	-	1
Manjhiaon	1	2	0	2
Bharno	1	1	0	1
Palkot	1	2	-	2
Raidih	1	2	-	2
Chandil	1	2	-	1
Nimdih	1	0	1	0
Bolba	1	2	-	1
Jaldega	1	2	-	1

Colour code: Red = Poor, Yellow = Satisfactory, Green = Good

It can be seen from **Table 3.21** that ambulances were available in excess of requirements in three out of the five test-checked DHs, while the number of ambulances available in DH, Garhwa, was lower. Ambulances were not available in three out of the 14 test-checked CHCs, while excess numbers of ambulances were available in eight CHCs. Among the test-checked PHCs, ambulance was available only in PHC, Bansjore. Audit also observed that excess numbers of drivers were available in two DHs, in comparison to the available ambulances, whereas the availability of drivers was lower than the available ambulances, in two DHs. Further, the required technicians were not available with any of the ambulances, in the test-checked healthcare facilities.

⁷¹ Every ambulance is to have one driver and two technicians.

The Department accepted the facts and stated (March 2023) that procurement of ambulances is in process. It was also stated that excess ambulances available in some health facilities, will be allotted to hospitals where no ambulance is available.

3.6.2.1 108-Ambulance Service

Audit further noticed that the Jharkhand Rural Health Mission Society (JRHMS) had signed (October 2015) an agreement with a private agency, to render ambulance services in the State, on contract basis. However, the service “108 Ambulance Service” could be commenced only in November 2017 due to delayed fabrication of 108 *Vahan*. The Agency was running 337 ambulances, of which 50 ambulances were equipped with Advanced Life Support (ALS) and 287 with Basic Life Support (BLS). According to the agreement, the agency is responsible to maintain average response time of 25 minutes for urban and 55 minutes for rural and difficult areas as a key performance parameter in 80 *per cent* of the cases. As per information furnished by the agency, 8.52 lakh patients had been provided 108 Ambulance Services, as of March 2022. Details of delays in response time are given in **Table 3.22**.

Table 3.22: Delays in response time during November 2017 to March 2022

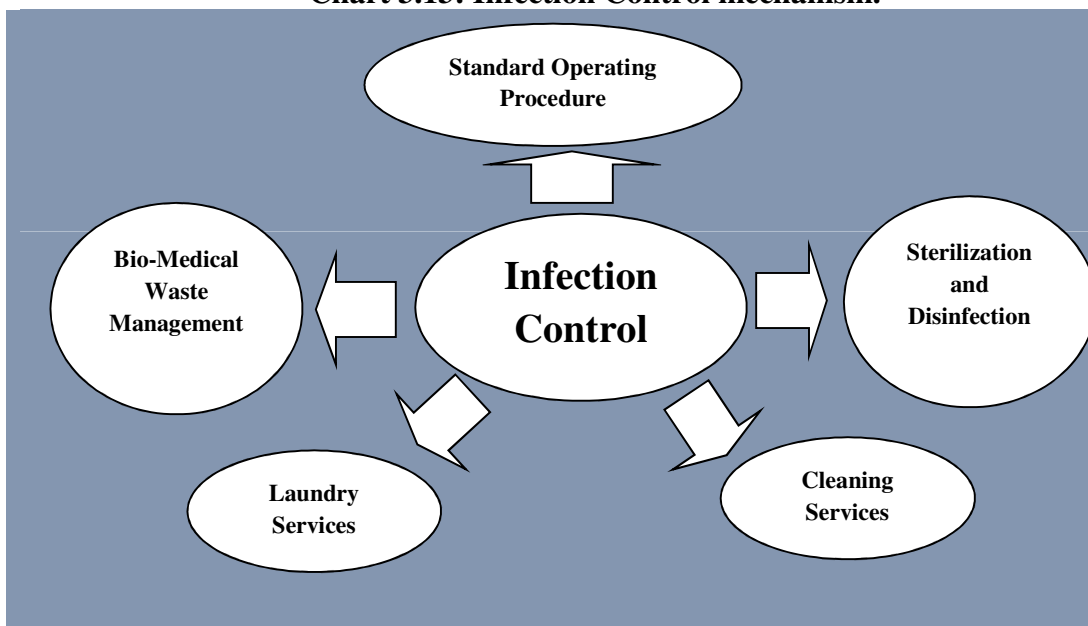
Total number of calls attended	Delay against average response time fixed							Total number of delayed cases (<i>per cent</i>)
	1-5 minutes	6-10 minutes	11-15 minutes	16-20 minutes	21-25 minutes	26-30 minutes	>30 minutes	
2,15,088 (Urban)	13,358	8,554	5,351	3,191	2,013	1,305	2,735	36,507 (17)
6,36,821 (Rural)	5,993	4,195	2,854	1,940	1,308	965	3,235	20,490 (3)

It can be seen from **Table 3.22** that there were delays against the average response time fixed in 36,507 cases (17 *per cent*) in urban areas and 20,490 cases (3 *per cent*) in rural areas. Delays against the average response time fixed may adversely affect healthcare service to critical patients. However, as per terms of agreements, the delays were under the permissible limit.

3.7 Infection Control

Infection control practices are important in maintaining a safe environment for both patients and staff in the hospitals, by reducing the risk of potential spread of hospital associated infections. Various aspects of infection control are shown in **Chart 3.13**.

Chart 3.13: Infection Control mechanism.



3.7.1 Standard Operating Procedures

To prevent hospital acquired infections in patients, visitors and staff, the NHM Assessor's Guidebook for DHs recommends framing of an infection control programme and procedures, which are then to be put in place, for prevention and measurement of hospital associated infections. This *inter alia* requires cleaning and disinfection of patient care areas, by maintaining a checklist for hygiene and infection control in each hospital. Further, to promote cleanliness, hygiene and infection control practices in public health care facilities, a Hospital Infection Control Committee (HICC) needs to be formed in each hospital, as envisaged under "Kayakalp"⁷², a programme launched (May 2015) by GoI.

Audit observed that the Department had directed (September 2015) all Civil Surgeons to constitute District Infection Control Committees (DICC), similar to HICC, for framing policies for infection control and monitoring their implementation. However, DICCs had been constituted only in Gumla and Simdega districts, in March 2018 and May 2019, respectively.

Further, the State Quality Assurance Committee (SQAC) had prepared standard operating procedures (SOPs) for infection control related to various services⁷³ and communicated (June 2016) them to all Civil Surgeons (CSs), with the direction to modify the SOPs as per the needs of the districts, and report the changes, if any, to the SQAC. However, three⁷⁴ out of the five test-checked DHs

⁷² A national initiative launched by Ministry of Health and Family Welfare, GoI under Swachh Bharat Abhiyan to promote cleanliness and enhance the quality of healthcare facilities in India.

⁷³ Accident & Emergency, Blood Bank, IPD, Laboratory, Labour room, Maternity, OT, OPD, Pharmacy & Stores, Radiology, SNCU, General Administration and Mortuary.

⁷⁴ Dumka, Garhwa and Gumla.

had not prepared their own SOPs, or adopted the SOPs prepared by the SQAC, as of March 2022. In the absence of SOPs, cleanliness and infection control activities were being carried out in an *ad-hoc* manner, in the three DHs.

In the absence of systematic infection control activities, Audit could not derive an assurance that the prescribed processes of hygiene and infection control were being followed in the test-checked DHs, during FYs 2016-17 to 2021-22. The Department accepted the facts and stated (March 2023) that remedial action will be taken.

3.7.2 Pest and rodent control

As per the NHM Assessor’s Guidebook, controlling spread of infections through rodents and pests, in the hospitals, is an important component of infection control practices.

Audit observed that pest and rodent control work had not been carried out by two DHs (Dumka and Garhwa), out of the five test-checked DHs, during FYs 2016-17 to 2021-22. DH, Gumla, had started pest and rodent control work in FY 2019-20 and continued it till FY 2020-21 only. DH, Simdega had carried out pest control only in three⁷⁵ out of six years. DH, Saraikela Kharsawan, had carried out pest and rodent control work in May 2019 and December 2020, only. Further, only one test-checked CHC (Raidih) had ensured pest and rodent control during FYs 2016-17 to 2021-22. No pest control had been carried out in any of the test-checked PHCs. Thus, standardisation of pest and rodent control, for minimising hospital acquired infections, had not been ensured by any of the test-checked DHs/CHCs/PHCs, during FYs 2016-17 to 2021-22. The Department did not furnish replies to the audit observation.

3.7.3 Disinfection and sterilisation

As per the Hospital Infection Control Guidelines of the Indian Council of Medical Research (ICMR), disinfection and sterilisation helps in preventing the build-up of bacteria/ viruses *etc.*, on medical tools, linen and consumables, and reduces the chances of spread of infections among the patients and staff of hospitals. Further, the NHM Assessor’s Guidebook recommends boiling, autoclaving, high level disinfection (HLD) and chemical sterilisation, for disinfection, in DHs. The methods of disinfection and sterilisation, carried out in the test-checked DHs, as of March 2022, is shown in **Table 3.23**.

Table 3.23: Availability of disinfection and sterilisation procedures

Name of DH	Boiling	Chemical sterilization	Autoclaving	High level disinfection (HLD)
Dumka	Yes	Yes	Yes	NA
Garhwa	Yes	No	Yes	No
Gumla	Yes	Yes	Yes	Yes
Saraikela Kharsawan	Yes	Yes	Yes	Yes
Simdega	Yes	Yes	Yes	No

Colour code: Red = not available, Green = available

⁷⁵ FYs 2017-18, 2018-19 and 2020-21.

It can be seen from **Table 3.23** that HLD⁷⁶ system was not available in three DHs, even though it was mandatorily required for disinfection of specific instruments and equipment.

Further, Boiling, Chemical sterilization and Autoclaving, were available in 11, six and 13 CHCs, respectively, out of the 14 test-checked CHCs. High level disinfection was not available in any of the test-checked CHCs, as on March 2022. The Department accepted the facts and stated (March 2023) that remedial action will be taken.

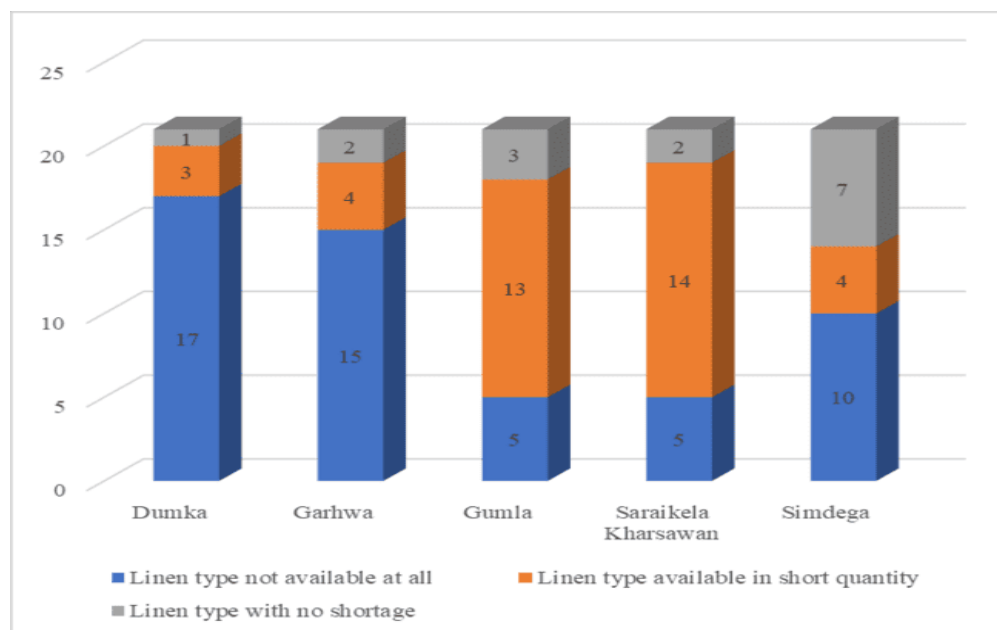
3.7.4 Laundry Services

3.7.4.1 Availability of linen

IPHS norms prescribe 21 types of linen for patient care services in accordance with the bed capacity of a hospital.

Audit observed that four to 16 types of linen were not available in the five test-checked DHs, during FY 2021-2022 (**Appendix 3.10**). The availability and shortage of linen, in the test-checked DHs, is shown in **Chart 3.14**.

Chart 3.14: Shortage of types of linen items in the test-checked DHs during FY 2021-22



It can be seen from **Chart 3.14** and **Appendix 3.10** that one to three types of linen, comprising mainly of blankets, over-shoes pairs and pillow covers were available in excess of requirements in the test-checked DHs. Blankets were available in excess of requirements by 94 to 444 *per cent*, in all the five DHs; over-shoes pairs were available in excess of requirements by 116 to 6,150 *per cent*, in two DHs⁷⁷; and pillow covers were available in excess of

⁷⁶ A process of complete elimination of all micro-organisms in or on a device with the exception of a small numbers of bacterial spores.

⁷⁷ Gumla and Saraikela Kharsawan.

requirements by 17 to 42 *per cent* in two DHs⁷⁸. Bed sheets were found in excess of requirement (105 *per cent*) in DH, Simdega (**Appendix 3.10**).

There were shortages of 14 to 20 types of linen, ranging between three and 100 *per cent*, which mainly included shortages of bed sheets, bed spreads, pillows, table cloths, OT coats and patient house coats, with male patient's *pyjamas/shirts* not being available in any of the test-checked DHs (**Appendix 3.10**).

Audit also observed that, during FY 2021-22, two to 17 types of linen were available in the 14 test-checked CHCs, as detailed in **Appendix 3.10**. Further, only 3 to 8 types of linen, were available in the test-checked PHCs.

Thus, blankets, overshoes pair, pillow covers and bed sheets were procured in excess, while procurement of other types of linen was ignored. The Department accepted the facts and stated (March 2023) that remedial action will be taken.

3.7.4.2 Other deficiencies in laundry services

Scrutiny of records, in the test-checked five DHs and 14 CHCs, revealed that:

- Laundry registers had been maintained only in three⁷⁹ out of the five test-checked DHs and two⁸⁰ out of 14 test-checked CHCs.
- Physical verification of linen had not been carried out by any of the test-checked DHs/CHCs, during FYs 2016-17 to 2021-22. A system for checking pilferage/ loss of linen, was available only in DH, Dumka, out of the five test-checked DHs.
- In two DHs⁸¹ and six CHCs⁸², stocks of cleaned linen were found kept in a hygienic condition, in closed cupboards. In the remaining three test-checked DHs and eight CHCs, cleaned linen was found to have been kept in the open, as can be seen from the photographs 3.5 to 3.7 below:



⁷⁸ Garhwa and Simdega.

⁷⁹ Dumka, Gumla and Simdega

⁸⁰ Bharno and Raidih

⁸¹ Dumka and Simdega

⁸² Govindpur, Jharia, Jarmundi, Bharno, Raidih and Jaldega

Photograph 3.5	Photograph 3.6	Photograph 3.7
		
Washed linen kept on the floor, at DH, Garhwa (27.04.2022)	Washed linen stored in the open, at DH, Saraikela Kharsawan (16.07.2022)	Washed linen stored in the open, at CHC, Chandil (25.04.2022)

- Bed sheets were being changed every day, only in three (Garhwa, Gumla and Simdega) out of the five test-checked DHs. Different coloured bed sheets were being provided on different days, as per GoI instructions, only in two DHs (Gumla and Simdega).
- Separate trolleys, for distribution of clean linen and collection of dirty linen, were found to have been used only in DH, Gumla, CHC, Jharia and CHC, Govindpur.
- Infected and non-infected linen items were being segregated and transported in separate containers/ bags, only in two DHs (Dumka and Gumla) and in two CHCs (Jharia and Govindpur).
- Bed linen was being checked every day by the management of the hospital in DH, Gumla, only. Thus, monitoring of cleanliness and disinfection of linen, were not ensured, in the remaining four DHs.
- The Civil Surgeons of only two (Saraikela Kharsawan and Simdega) out of the six test-checked districts, had prepared and adopted policies for condemnation of linen, respectively. However, the condemnation process had not been initiated in DH, Saraikela Kharsawan, whereas no information had been provided by DH, Simdega. The remaining three test-checked districts had not prepared any policy for condemnation, nor had they condemned linen during FYs 2016-17 to 2021-22. The Department accepted the facts and stated (March 2023) that remedial action will be taken.

3.7.5 Management of Biomedical Waste

As per the Biomedical Waste (Management and Handling) Rules, 1998, it is the duty of every occupier⁸³, of an institution⁸⁴ generating biomedical waste, to take all steps to ensure that such waste is handled without any adverse effect to human health and the environment. Further, no untreated biomedical waste is

⁸³ A person who has control over the institution and/or its premises.

⁸⁴ Includes a hospital, nursing home, clinic, dispensary, veterinary institution, animal house, pathological laboratory and blood bank

to be stored beyond a period of 48 hours. Though arrangements for management of Biomedical Waste (BMW) were available in all the 23 DHs of the State, Audit observed several deficiencies, in the test-checked healthcare facilities, as discussed below:

- As per BMW Management Rules, 2016 and IPHS, each hospital is required to obtain authorisation from the State Pollution Control Board (SPCB), for handling⁸⁵ bio-medical waste. Audit observed that none of the test-checked DHs/ CHCs/ PHCs had obtained authorisation from SPCB, during FYs 2016-17 to 2021-22, except for DH, Gumla, which had obtained consent to operate (CTO), for the period from June 2018 to June 2019.
- All the test-checked DHs were disposing biomedical waste through operator⁸⁶ and had Memoranda of Understanding⁸⁷ for the same. These DHs had been attached with the operators between October 2018 and August 2021. The method of collection, segregation, transportation and management of BMW, before engaging the operators, was not found available on records, in any of the DHs.
- Audit observed that segregation of BMW was not being carried out in any of the test-checked CHCs and PHCs. It was further observed that Bio-medical liquid waste segregation or treatment was not being carried out separately in any of the test-checked DHs/CHCs/PHCs. Further, Effluent Treatment Plants (ETPs) had not been established for pre-treatment of the liquid chemical waste, in any of the test-checked DHs, resulting in discharge of untreated waste directly into the drainage system, in violation of BMW Rules, compromising public health.
- Out of the five test-checked DHs, biomedical waste was being disposed off on alternate days, in four⁸⁸ DHs and on a weekly basis in DH, Gumla. Similarly, out of the 14 test-checked CHCs, disposal of waste was being done daily, in CHCs, Bharno and Palkot; on alternate days, in CHC, Raidih; twice in a week, in three⁸⁹ test-checked CHCs, and on a weekly basis in CHC, Bolba. Although an operator⁹⁰ had been engaged to collect BMW

⁸⁵ Includes the generation, sorting, segregation, collection, use, storage, packaging, loading, transportation, unloading, processing, treatment, destruction, conversion, or offering for sale, transfer, disposal of such waste

⁸⁶ (1) M/s Medicare Environmental Management Private Limited, Lohardaga, (2) M/s. Greenland Waste Management System, Pakur and (3) M/s Adityapur Waste Management Private Limited, Adityapur.

⁸⁷ Dumka (06.08.2021), Garhwa (01.04.2019), Gumla (13.10.2018), Saraikela Kharsawan (08.06.2020) and Simdega (13.02.2019).

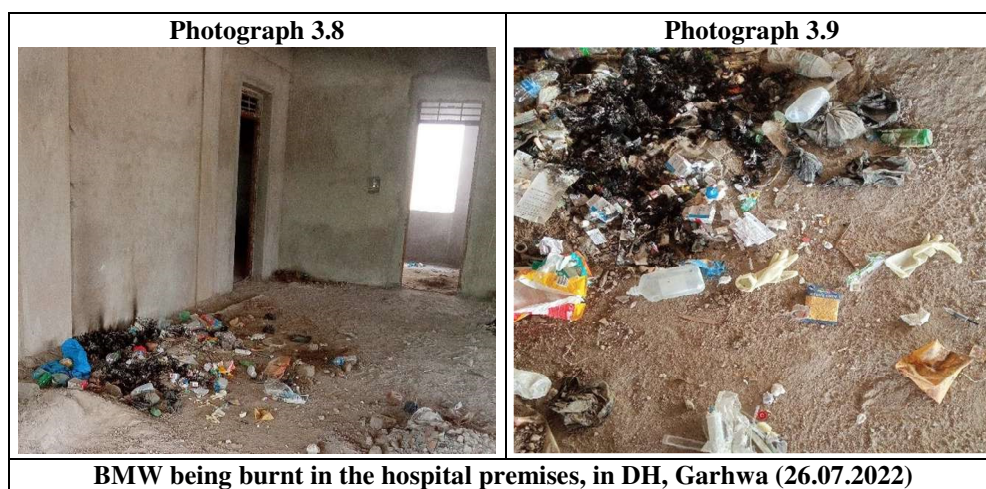
⁸⁸ DHs, Dumka, Garhwa, Saraikela Kharsawan and Simdega.

⁸⁹ CHCs, Chandil, Jaldega, Nimdih.

⁹⁰ M/s Greenland Waste Management System, Pakur.

from three⁹¹ CHCs in the Dumka district, the periodicity of collection and method of disposal of BMW was not found available on records. In the remaining four⁹² test-checked CHCs, BMW was being disposed in deep pits.

- In DH, Garhwa, an Incinerator, installed (May 2021) at a cost of ₹ 8.79 lakh, had not be used, as of June 2022. Instead, an agency had been outsourced (April 2019) for disposal of waste. Further, biomedical waste was being handled without proper safety precautions, as syringes, needles, disposable gloves, plastic bags, drug bottles *etc.*, were being burnt openly in the hospital premises, as can be seen in photographs 3.8 and 3.9.



From the above, it is evident that biomedical waste had not been managed properly. Besides affecting the environment, this would also affect the persons who were handling the waste, as well as the people in and around the hospital. The Department stated (March 2023) that the matter will be examined.

- A Sewage Treatment Plant (STP) is essential to manage the amount of sewerage generated in a hospital, so that it does not pollute the neighboring areas of the hospital. None of the test-checked DHs/ CHCs had installed STPs.
- As per Government orders, payment on account of disposal of Biomedical waste was to be made to the operators at the rate of ₹ seven per day per bed. Audit noticed that CHC, Palkot, which had a capacity of six beds, had made payments amounting to ₹ 51,240, for FY 2020-21, against the admissible amount of ₹ 15,330⁹³. This resulted in excess payment of ₹ 35,910.

3.8 Public Safety and Patient Rights

According to IPHS, a Citizen's Charter should be prominently displayed, indicating the patients' rights and responsibilities, services available, user fees

⁹¹ CHCs, Jarmundi, Saraiyahat and Shikaripara.

⁹² CHCs, Bhawnathpur, Govindpur, Jharia and Manjhiaon.

⁹³ 06 beds x ₹ 7 x 365 days= ₹ 15,330.

charged (if any) and a grievance redressal system. IPHS emphasises that hospitals should have security and safety management. Further, boundary wall/fencing, with gate was also a requirement under IPHS.

During test-check of the records of five DHs, 14 CHCs and 12 PHCs, Audit observed the following:

- Citizen's Charters were displayed in all the test-checked DHs. However, they were not displayed in nine CHCs and eight PHCs. Further, no Grievance Redressal Mechanisms were available in any of the test-checked DHs/ CHCs/ PHCs.
- IPHS provides that hospital buildings should be equipped with fire protection features. The National Building Code of India, 2005 (updated in 2016) also stipulates that fire extinguishers (FEs)/ fire hydrants must be installed in every hospital, to ensure safety of patients, attendants, visitors and the hospital staff, in case of any fire mishap in the hospital premises.

Audit observed that fire hydrants⁹⁴ had not been installed in any of the test-checked DHs/ CHCs/ PHCs. However, FEs were available in all the test-checked DHs and 13 CHCs, but the availability of FEs was limited to only four PHCs. The sufficiency or otherwise, of the FEs⁹⁵, could not be ascertained in the absence of any prescribed norms. Further, the number of available FEs was not uniform and ranged between nine and 28, in the four test-checked DHs, having capacities of 100 beds each. Availability of FEs, in the test-checked DHs/ CHCs/ PHCs, ranged between one to 15 beds per FE⁹⁶. Further, out of the test-checked DHs/ CHCs/ PHCs, smoke detectors were available only in DH, Dumka and CHC, Jarmundi. It was also noticed that fire safety audit was conducted only in nine⁹⁷ out of the 23 DHs.

- No Disaster Management Plan had been prepared and no Disaster Management Committees had been constituted by any of the test-checked DHs/ CHCs/ PHCs, except DH, Simdega and CHC, Bharno. As per IPHS, directional signages for emergency should be displayed in the hospitals. Audit observed that signages of emergency exits were available in three⁹⁸ out of the five test-checked DHs, four⁹⁹ out of the 14 test-checked CHCs and four¹⁰⁰ out of the 12 functional test-checked PHCs. Further, 'no objection

⁹⁴ A separate water connection point from which water can be tapped, in case of fire mishap

⁹⁵ In the absence of any benchmark or fire safety audit, the number of fire extinguishers available, was compared against the total number of beds.

⁹⁶ DHs: 4 to 11 beds per FE, CHCs: 3 to 15 beds per FE and PHCs: 1 to 6 beds per FE.

⁹⁷ DH:- Dumka, East Singhbhum, Giridih, Gumla, Hazaribag, Latehar, Lohardaga, Pakur and Ramgarh,

⁹⁸ DH, Dumka; DH, Saraikela Kharsawan and DH, Simdega.

⁹⁹ Jarmundi, Saraiyhat, Shikaripara and Manjhiaon.

¹⁰⁰ Maluti, Raikinari, Kandi and Bansjore.

certificates' from the State Fire Authority, had not been taken by any of the test-checked DHs/ CHCs/ PHCs. This indicated that the DHs/ CHCs/ PHCs did not have adequate security and safety management. The Department did not furnish replies to the audit observation.

- As per IPHS norms, cleanliness should be maintained in the areas inside and outside the hospitals. Photographs 3.10 to 3.15, showing the condition of hygiene and cleanliness in the test-checked hospitals, are given below.

<p align="center">Photograph 3.10</p>  <p align="center">CHC-Jaldega (dirty toilet) (14.06.2022)</p>	<p align="center">Photograph 3.11</p>  <p align="center">CHC-Palkot (dilapidated condition) (11.05.2022)</p>
<p align="center">Photograph 3.12</p>  <p align="center">CHC-Palkot (vaccine carrier box kept outside) (03.06.2022)</p>	<p align="center">Photograph 3.13</p>  <p align="center">CHC-Chandil (Drugs kept near toilet) (30.07.2022)</p>
<p align="center">Photograph 3.14</p>  <p align="center">CHC-Jharia (drugs kept on the floor) (23.08.2022)</p>	<p align="center">Photograph 3.15</p>  <p align="center">DH Garhwa (Scattered bio-medical waste in the hospital premises) (26.07.2022)</p>

3.9 Mortuary Services

A Mortuary provides facilities for conducting autopsies and keeping dead bodies before they are cremated or buried. The Mortuary is to be located in a separate building which is easily accessible from the wards, Accident & Emergency Department and Operation Theatre. It is also to be located away from general traffic routes used by the public. As per IPHS, DHs should provide mortuary services.

Audit observed that mortuary services were available, as of March 2022, in 18¹⁰¹ (including all the test-checked DHs) out of the 23 DHs.

3.10 Teaching Hospitals

Medical Colleges and Hospitals (MCHs) provide medical care to patients, either through out-patient departments (OPDs) or by admitting them as in-door patients (IPDs). Audit scrutiny of activities pertaining to service delivery to patients, revealed the following deficiencies:

3.10.1 Out-patient Departments

The out-patient departments (OPDs) provide medical services to those patients who do not require hospitalisation. As per Department's order (May 2013), each OPD in the clinical department was required to run for six hours a day, with one specialist doctor. Since MCHs cater to a large catchment area, efficient and competent OPDs, commensurate with the heavy flow of patients, are essential for providing quality services to patients, particularly poor people who cannot afford expensive treatment in private hospitals.

No norms in regard to the average consultation time had been fixed by the Department. However, the National Institute of Public Finance and Policy had opined that consultation time spent with a doctor is an important attribute for determining the satisfaction level among patients. Short contact time with healthcare personnel is a common source of patient's dissatisfaction with the consultation process.

Audit scrutiny of the records of five (except August 2020) out of six sample months¹⁰², in the three test-checked MCHs, revealed that the patient load in clinical departments, especially General Medicine, Gynaecology, Paediatrics and Surgery, was high, leading to less consultation time being available for patients, as detailed in **Table 3.24**.

¹⁰¹ Deoghar, Dumka, Garhwa, Giridih, Godda, Gumla, Hazaribag, Koderma, Khunti, Lohardaga, Latehar, Palamu, Ramgarh, Ranchi, Sahibganj, Saraikela-Kharshawan, Simdega, West Singhbhum.

¹⁰² May 2016, August 2017, November 2018, May 2019, August 2020 and November 2021.

Table 3.24: Average consultation time of departments

Name of MCH	Average Consultation time of the departments (In range)			
	General Medicine	Surgery	Gynaecology	Paediatrics
SNMMCH, Dhanbad (2016-22)	From 0.94 to 1.73 minutes	From 2.99 to 3.96 minutes	From 3.27 to 4.82 minutes	From 3.88 to 4.56 minutes
PJMCH, Dumka (2019-22)	From 2.73 to 5.61 minutes	From 9.26 to 11.31 minutes	From 5.23 to 5.67 minutes	From 7.78 to 8.61 minutes
RIMS, Ranchi (2016-22)	From 0.85 to 1.39 minutes	From 2.64 to 3.74 minutes	From 3.01 to 3.79 minutes	From 2.21 to 4.26 minutes

It can be seen from **Table 3.24** that the average consultation time ranged between one and five minutes in SNMMCH, Dhanbad and RIMS, Ranchi, due to heavy patient load (*Appendix 3.11*).

Despite high patient load and low consultation time, the concerned MCHs had not taken action to deploy more than one doctor in these OPDs. The Department did not furnish replies to the audit observation.

3.10.2 Bed occupancy in In- Patients Departments

As per MCI norms, the average occupancy of indoor beds is to be a minimum of 75 per cent per annum.

As per information provided by the three test-checked MCHs, the year-wise bed occupancy was as shown in **Table 3.25** and **Charts 3.15** to **3.17**.

Table 3.25: Year-wise bed occupancy

Year	No. of functional beds	Bed occupancy of 100 per cent (No. of functional beds x No. of days per year)	Actual occupancy	Percentage of occupancy
SNMMCH, Dhanbad				
2016-17	560	2,04,400	1,25,251	61
2017-18	560	2,04,400	1,35,455	66
2018-19	560	2,04,400	1,48,736	73
2019-20	560	2,04,960	1,52,006	74
2020-21	560	2,04,400	1,26,880	62
2021-22	560	2,04,400	1,52,673	75
PJMCH, Dumka				
2019-20	264	96,360	41,485	43
2020-21	264	96,360	45,391	47
2021-22	264	96,360	52,570	55
RIMS, Ranchi				
2016-17	1835	6,69,775	4,97,090	74
2017-18	1851	6,75,615	5,05,035	75
2018-19	1986	7,24,890	5,29,390	73
2019-20	2106	7,68,690	5,82,480	76
2020-21	2132	7,78,180	3,90,456	50
2021-22	2171	7,92,415	4,81,450	61

(Source: Data/information provided by the test-checked units)

Chart 3.15: SNMMCH, Dhanbad

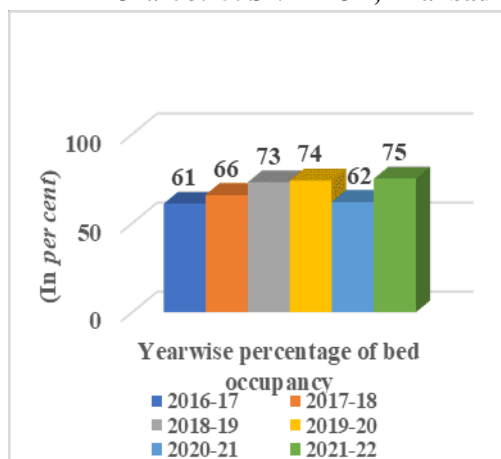


Chart 3.16: PJMCH, Dumka

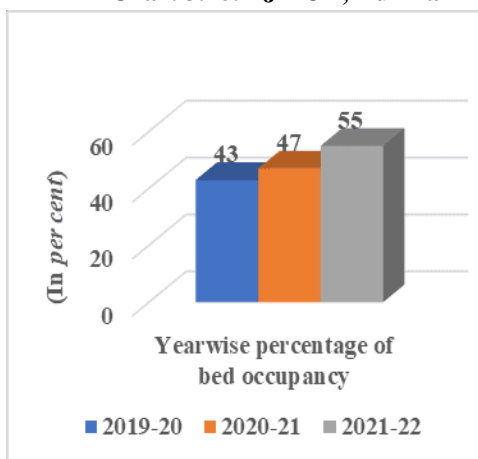
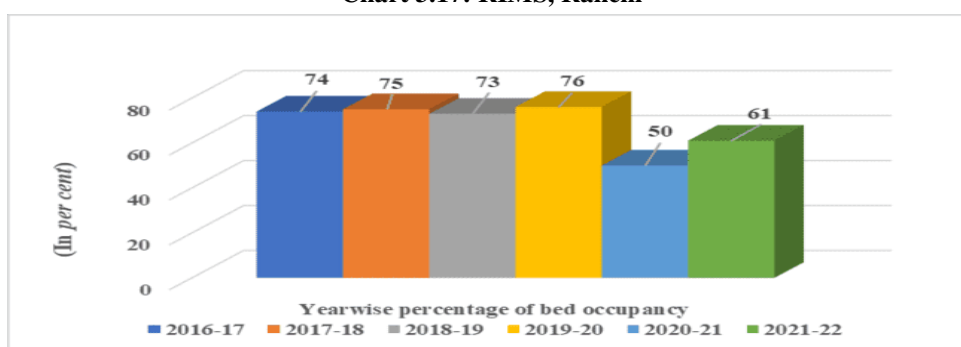


Chart 3.17: RIMS, Ranchi



It can be seen from **Table 3.25** that the average per annum bed occupancy in SNMMCH, Dhanbad, had ranged between 61 and 75 *per cent* during FYs 2016-17 to 2021-22. Though the bed occupancy had increased during FY 2018-19, it had again dipped in FY 2020-21, during the COVID-19 pandemic period. Similarly, the average per annum bed occupancy in PJMCH, Dumka, had ranged between 43 and 55 *per cent*, during FYs 2019-20 to 2021-22 and had not come up to the minimum required. Further, in RIMS, Ranchi, the bed occupancy rate was almost around 75 *per cent* during FYs 2016-17 to 2019-20. However, it had dipped to 50 and 61 *per cent* during FYs 2020-21 and 2021-22, due to the COVID-19 pandemic.

Low bed occupancy may adversely impact the renewal and recognition of the teaching hospitals by the NMC. The Department did not furnish replies to the audit observation.

3.11 Blood Banks

Blood Banks are integral constituents of a teaching hospital. They are required to supply blood to needy patients during the course of surgery or any emergency. They collect blood units from donors and store them for supply to patients, as and when needed.

The three test-checked MCHs had blood banks attached to them. The blood bank licence of SNMMCH, Dhanbad, was valid up to July 2023. The licence of

the blood bank at PJMCH, Dumka, had expired in May 2018. Similarly, the licence of the blood bank in RIMS, Ranchi, had expired in March 2021.

After expiry of the licence, two drugs inspectors had carried out inspections of the blood bank in PJMCH, Dumka, during June 2019 and July 2021, and pointed out serious deficiencies due to which licence could not be renewed. Despite non-renewal of the licence, the blood bank was issuing blood units to needy patients, as of June, 2022. In case of the blood bank in RIMS, Ranchi, though the process of renewal was started in March 2021, the licence has not been renewed as of March 2022. Details of total blood units collected and discarded in the three test-checked MCHs, during 2016-17 to 2021-22, is given in **Table 3.26**.

Table 3.26: Blood units collected and discarded

Year	Total number of blood units collected	Total number of units discarded	Reason for discarding (Number of units)						
			Haemolysed blood	Expired blood	VDRL positive	Antigen Malaria	HCV positive	HIV positive	HBsAg
SNMMCH, Dhanbad									
2016-17	9,116	155	64	3	20	9	1	4	54
2017-18	9,349	100	41	03	04	11	00	07	34
2018-19	13,222	114	44	00	08	11	02	02	47
2019-20	15,040	184	58	00	28	05	02	05	86
2020-21	13,290	141	15	02	19	01	02	09	93
2021-22	14,795	152	25	03	03	02	25	23	71
Total	74,812	846	247	11	82	39	32	50	385
PJMCH, Dumka									
2016-17	575	22	01	18	00	00	00	00	03
2017-18	743	18	00	15	00	00	01	00	02
2018-19	1,528	30	02	21	00	00	00	00	07
2019-20	1,783	23	00	12	02	00	02	00	07
2020-21	2,501	85	00	18	43	00	04	03	17
2021-22	2,866	72	00	10	47	00	01	03	11
Total	9,996	250	03	94	92	00	08	06	47
RIMS, Ranchi									
2016-17	27,996	575	66	00	00	11	194	45	259
2017-18	28,103	527	40	00	03	08	186	27	263
2018-19	29,393	475	10	00	00	04	175	31	255
2019-20	32,566	542	05	00	01	01	231	48	256
2020-21	20,573	407	15	00	00	02	200	36	154
2021-22	22,254	459	06	00	00	01	150	49	253
Total	1,60,885	2,985	142	00	04	27	1,136	236	1,440

(Source: Data/information provided by test-checked units)

It can be seen from the **Table 3.26** that:

- In SNMMCH, Dhanbad, out of the total of 74,812 units of blood collected, 846 units were discarded during FYs 2016-17 to 2021-22, on account of haemolysed¹⁰³ blood (247), expired blood due to it not being used within 35 days (11), blood testing VDRL positive (82), blood testing positive for Antigen Malaria (39), as well as blood testing HCV positive (32) and HIV positive (50) and HBsAg positive (385).

¹⁰³ The pathological process of breakdown of red blood cells in blood.

- In PJMCH, Dumka, out of 9,996 units of blood collected, 250 units were discarded during FYs 2016-17 to 2021-22, due to haemolysed blood (03), expired blood due to it not being used within 35 days (94), as well as blood testing VDRL positive (92), HCV positive (08), HIV positive (06) and HBsAg positive (47).
- In RIMS, Ranchi, out of 1,60,885 units of blood collected, 2,985 units were discarded during FYs 2016-17 to 2021-22, owing to haemolysed blood (142), as well as blood testing VDRL positive (04), Antigen Malaria positive (27), HCV positive (1,136), HIV positive (236) and HBsAg positive (1,440).

Thus, blood units were discarded due to the reasons depicted above. The Department did not furnish replies to the audit observation.

3.12 AYUSH

AYUSH is the acronym for Ayurveda, Yoga & Naturopathy, Unani, Siddha¹⁰⁴ and Homeopathy, which are the six systems of medicine being practiced in India. Jharkhand is rich in flora and fauna, and, as such, development of the AYUSH systems is expected to have added advantage as an alternative medical system.

In Jharkhand, there is an AYUSH Directorate, for co-ordination, control and implementation of Ayurveda, Unani, Homeopathy, Yoga & Naturopathy and Siddha, under the Department of Health, Medical Education and Family Welfare, Jharkhand. The AYUSH Director is assisted by one Additional Director and three Deputy Directors (one each for Ayurveda, Unani and Homeopathy). The AYUSH Directorate manages AYUSH health services, AYUSH medical education, registration of practitioners and other related functions.

As of March 2022, AYUSH services were provided through 24 District Joint Dispensaries, 163 Ayurvedic, 72 Homeopathic and 32 Unani dispensaries, in the State. Additionally, the State Government had notified (November 2001 and October 2004), five Colleges and Hospitals of the AYUSH stream, of which two Colleges, *viz.* Government Homeopathic Medical College & Hospital at Godda and Government Ayurvedic Pharmacy College at Sahibganj, were functional, as of March 2022.

3.12.1 Availability of Out-Patient Services

District Joint AYUSH dispensaries are required to provide OPD services of Ayurvedic, Unani and Homeopathic. Audit observed that Unani OPDs were not available in any of the test-checked District Joint AYUSH dispensaries. Ayurvedic services were available in five out of six dispensaries. Homeopathic services was available only at Saraikela Kharsawan. No OPD services were

¹⁰⁴ Siddha is a traditional system of medicine practiced in South India.

provided at Dumka. Details of OPD patients in the test-checked District joint AYUSH dispensaries¹⁰⁵ are shown in **Table 3.27**.

Table 3.27: OPD patients in the test-checked District Joint AYUSH dispensaries

District	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Dhanbad	3,852	3,467	4,907	6,404	3,121	2,095
Dumka	OPD service was not available					
Garhwa	3,131	4,004	4,764	5,748	4,623	5,074
Gumla	3,228	3,134	4,567	3,703	1,956	2,035
Saraikela Kharsawan	5,682	7,154	6,750	6,679	4,436	4,406
Simdega	1,372	481	750	1,184	761	516
Total	17,265	18,240	21,738	23,718	14,897	14,126

It can be seen from **Table 3.27** that the number of out-patients increased in the test-checked District Joint AYUSH dispensaries, during FY 2017-18 to FY 2019-20 and decreased marginally in FY 2020-21 and FY 2021-22, as compared to FY 2016-17, due to the COVID 19 pandemic. Audit further noticed that OPD services were not available in Dumka, due to non-availability of any AYUSH Medical Officer. Despite the steady flow of OPD patients, the availability of drugs in dispensaries was limited, as compared to the Essential Drugs List (EDL). Issues related to human resources in AYUSH facilities are discussed in **Chapter 2** while those related to drugs, equipment *etc.* are discussed in **Chapter 4**.

3.13 Emergency Management

Ministry of Health and Family Welfare, GoI, provides technical and financial support to States, from time to time, to strengthen the public healthcare system and manage public health challenges such as the COVID-19 pandemic.

As per the National Health Mission (NHM) Guidance Note, the “India COVID-19 Emergency Response and Health Systems Preparedness Package” (hereafter referred to as COVID Package) was a Central Sector Scheme and was intended to build resilient health systems, to support preparedness and prevention related functions, that would address not only the current COVID-19 outbreak, but also such outbreaks, in future, in the Country. The interventions in this package were to be implemented under NHM, supplementing the available resources for strengthening of health systems and ensuring complementarity.

The COVID Package was to be implemented in three¹⁰⁶ phases, from 1 January 2020 to 31 March 2024. The package included four components¹⁰⁷ for the management of COVID-19. The Guidance Note provides the framework

¹⁰⁵ Data in respect of Garhwa and Simdega is for the calendar years 2016, 2017, 2018, 2019, 2020 and 2021.

¹⁰⁶ Phase-1 from January 2020 to June 2020; Phase-2 from July 2020 to March 2021 and Phase-3 from April 2021 to March 2024.

¹⁰⁷ (i) Emergency COVID-19 Response (ii) Strengthening National and State Health Systems (iii) Community engagement and risk communication and (iv) Implementation, Management, Capacity building, Monitoring and Evaluation.

for preparation and implementation of the Emergency COVID Response Plan (ECRP), with details of the activities necessary for an effective emergency response. Initially, ECRP was to be implemented up to 30 June 2020 under Phase I, but later, its implementation period was extended up to 31 March 2021.

Further, as per the Guidance Note, “India COVID-19 Emergency Response and Health Systems Preparedness Package Phase- II” (ECRP-Phase-II) had been conceptualised to strengthen the health systems further and support States to manage the second wave and any future upsurge.

3.13.1 Objectives

The objectives of the COVID-19 Package (ECRP I) and ECRP II were as under:

COVID Package (ECRP I)

- i. To slow and limit, as much as possible, the spread of COVID-19 in India
- ii. Strengthen the National and State Health Systems, to support Prevention and Preparedness
- iii. Strengthen surveillance activities, including setting up of laboratories.

ECRP II

- Establishing dedicated Paediatric Care Units, in all districts, for responding to the needs of Paediatric COVID-19 management and a Paediatric Centre of Excellence, at the State level, for providing Tele-ICU services, mentoring and technical hand-holding to District Paediatric Units
- Timely and quality management of COVID-19 patients, by increasing bed capacities in healthcare facilities
- Increasing the availability of Intensive Care Unit (ICU) beds, including Pediatric ICU beds
- Having at least one Liquid Medical Oxygen (LMO) Storage Tank, along with Medical Gas Pipeline System (MGPS), in all districts
- Utilising UG and PG interns, Final Year MBBS, BSc. and General Nursing Midwife (GNM) Nursing students, for COVID-19 management
- Increasing access to ambulance services
- Enhancing the testing capacity for identification and clinical management of COVID-19 patients
- Implementing the Hospital Management Information System, at all District Hospitals; and
- Strengthening Tele-consultation Platforms.

3.13.2 Establishment of COVID Healthcare facilities

As per the Guidance Note of NHM on ECRP, Dedicated COVID-Hospitals¹⁰⁸ (DCHs), Dedicated COVID Health Centres¹⁰⁹ (DCHCs), Dedicated COVID Care Centres¹¹⁰ (DCCCs), Diagnostics & treatment facilities and support for human resources *etc.*, were to be established and developed, by strengthening the Government Medical College Hospitals, District Hospitals and other designated hospitals. Details of the availability of beds in Hospitals and Centres, during the 1st, 2nd and 3rd COVID-19 wave, *vis-à-vis* the position of COVID patients in the State, are given in **Table 3.28**.

Table 3.28: Availability of beds during the COVID-19 waves

	1 st wave (31.03.2020 to 21.01.2021)	2 nd wave (15.03.21 to 03.7.2021)					3 rd wave (25.12.2021 to 31.01.2022)
Total number of positive cases	1,18,629	2,11,417					78,105
Highest number of active cases at peak	15,447 (09.09.2020)	61,195 (09.05.2021)					33,189 (15.01.2022)
Types of beds	30-04-2020	30-03-2021	30-04-2021	30-05-2021	30-06-2021	27-07-2021	31-12-2021
No. of beds without oxygen support	10,091	7,201	12,012	12,534	12,702	13,931	8,738
No. of beds with oxygen support	1,760	1,459	5,947	10,297	12,289	10,323	14,863
ICU Beds	310	481	679	854	903	1,240	3,204
Ventilator Beds	381	502	634	821	865	1,178	1,456
Total	12,542	9,643	19,272	24,506	26,759	26,672	28,261
Total active cases on the day	87	2,825	57,716	8,907	914	247	1,371
Additions during the month	110	4,252	1,09,210	1,04,363	7,836	1,412	1,742

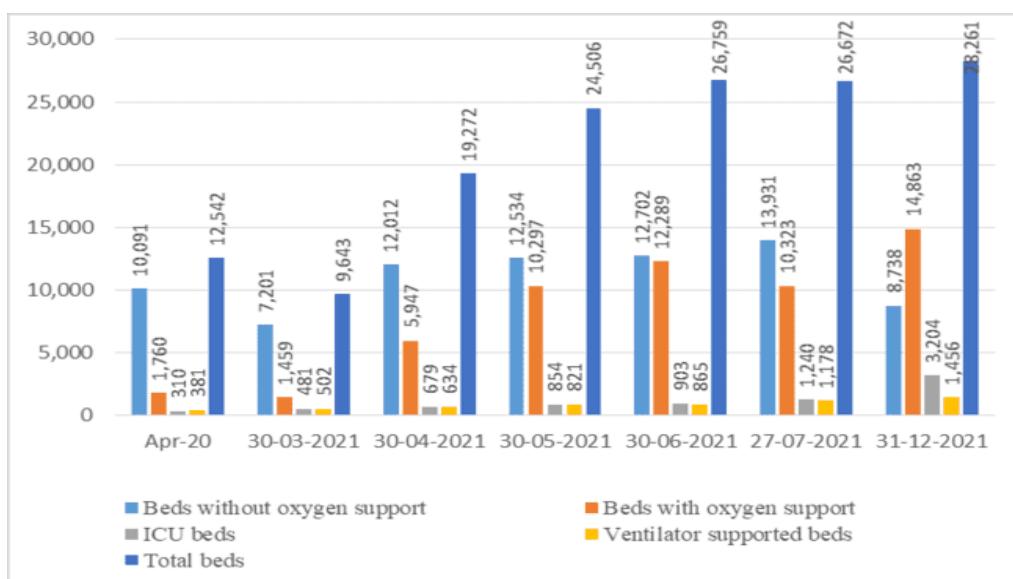
It can be seen from **Table 3.28** that that ICU beds had increased by 55 *per cent*, during April 2020 to March 2021, 88 *per cent* during the 2nd wave and 254 *per cent* from the 2nd to the 3rd wave. Ventilator beds had increased by 32 *per cent*, during April 2020 to March 2021, 72 *per cent* during the 2nd wave and 68 *per cent* from the 2nd to the 3rd wave. Beds with oxygen support decreased by 17 *per cent* during April 2020 to March 2021, increased by 742 *per cent* during the 2nd wave and 21 *per cent* from the 2nd to the 3rd wave. A pictorial representation of the availability of beds, during the three COVID-19 waves in the State, is given in **Chart 3.18**. In reply (March 2023) the Department accepted the audit observation.

¹⁰⁸ Hospitals with fully equipped ICUs, ventilators and beds, with assured oxygen support, offering comprehensive care, primarily to those patients who had been clinically assigned as 'severe'.

¹⁰⁹ Centres offering care for all cases that had been clinically assigned as 'moderate'.

¹¹⁰ Centres offering care only for cases that had been clinically assigned as 'mild' or 'very mild' or 'COVID suspect'.

Chart 3.18: Availability of beds during the 1st, 2nd and 3rd COVID-19 waves



3.13.3 Financial Management of COVID-19

Provision of funds for COVID-19 management was made from different sources, like the State Disaster Relief Fund (SDRF), Emergency Covid Response Package (ECRP), Prime Minister's Citizen Assistance and Relief in Emergency Situations (PM CARES) Fund *etc.* Details of the funds provided, released and utilised, during FYs 2019-20 to 2021-22, are given in **Table 3.29**.

Table 3.29: Receipt, release and utilisation of funds for COVID-19 management

(₹ in crore)

Source	Provision	Release by GoJ	Utilisation
COVID-19 under NHM (GoI)	25.98	25.98	25.98
COVID-19 under NHM (GoJ)	17.32	17.32	17.32
ECRP-I (GoI)	70.84	70.84	70.84
ECRP-I (GoI) ¹¹¹ (Additional Fund)	3.38	3.38	NA
ECRP-II- Central Share	383.34	191.67	23.52
ECRP-II- State Share	255.56	127.78	
PM CARES	17.97	14.15	8.18
SDRF	754.61	754.61	539.56
Total	1,529.00	1,205.73	685.40

(Source: Data furnished by the HME & FW Department, and Home, Prison & Disaster Management Department)

Details of utilisation of all the funds, released for COVID-19 management, were not available with the HME & FW Department. Audit, however, observed the following:

¹¹¹ Provided and released in January 2022, to be utilised by 31.03.2022.

3.13.3.1 Short release and utilisation of COVID-19 funds

GoI had released (March 2020 to March 2022) ₹ 483.54 crore¹¹² for COVID-19 management, under NHM and ECRP Phases I and II. Against this, GoJ was to release ₹ 272.88 crore¹¹³, as its share. Against the total provision of ₹ 756.42 crore, GoJ released (between June 2020 and March 2022) only ₹ 436.97 crore (GoI share: ₹ 291.87 and State share: ₹ 145.10 crore) to JRHMS. The remaining amount of ₹ 319.45 crore (GoI share: ₹ 191.67 crore and State share: ₹ 127.78 crore) had not been released, as of August 2022.

Further, against the available funds of ₹ 436.97 crore, JRHMS could utilise only ₹ 137.65 crore (32 per cent) during FYs 2019-20 to 2021-22 and the remaining amount of ₹ 299.32 crore was lying unutilised with JRHMS and District Rural Health Societies (DRHSs). Further, JRHMS utilised ₹ 141.47 crore during FY 2020-21 under ECRP-I against the release of ₹ 70.84 crore. The excess of ₹ 70.63 crore was utilised from other funds available with NHM, which was yet to be regularised (August 2022).

Short release and short utilisation of COVID-19 management funds, led to non-setting up of (i) RT-PCR laboratories at the district level (ii) Pediatric ICU excellence Centre at Ranchi and (iii) pre-fabricated structures at CHCs/ PHCs/ HSCs, Liquid Medical Oxygen plant *etc.*, as planned under ECRP, as discussed in the succeeding paragraphs. The Department accepted the facts and stated (March 2023) that necessary steps will be taken for early utilisation of funds.

3.13.3.2 Delay in release of funds

As per the NHM Guidance Note on ECRP, in view of the urgency of the situation, the funds released under NHM and ECRP, by GoI, for COVID-19 management, were expected to be released to the State Health Society by the State, along with the corresponding State share, within seven working days from the date of release of funds by the GoI.

Audit, however, noticed that GoJ had released funds to JRHMS, with delays ranging between 14 and 135 days, from the date of release of funds by GoI (*Appendix 3.12*). The Department, while confirming the facts, stated (March 2023) that funds could not be drawn as GoI had not released the funds under the proper head. The State Government had taken up the matter with GoI and the funds have been released under the proper head in 2022-23. The funds have also been released to the implementing agencies.

¹¹² ₹ 25.98 released for COVID-19 under NHM, ₹ 457.56 crore (full share: ₹ 70.84 crore under ECRP I and ₹ 3.38 crore and ₹ 383.34 crore under ECRP II) released between April 2020 and March 2022.

¹¹³ ₹ 17.32 crore for COVID-19 under NHM and ₹ 255.56 crore under ECRP II.

3.13.3.3 Short utilisation of SDRF funds

The Home, Prison & Disaster Management Department, GoJ, released (between March 2020 and December 2021) SDRF funds of ₹ 754.61 crore, to different departments/Authorities¹¹⁴, for COVID-19 management, on the recommendation of the State Executive Council¹¹⁵. Against this, ₹ 539.56 crore had been utilised, as of February 2022, and ₹ 5.67 crore had been surrendered, by the Directorate of Information and Public Relation (₹ 11.37 lakh) and Deputy Commissioners (₹ 5.56 crore). The remaining amount of ₹ 209.38 crore was lying with the departments/authorities.

In the six test-checked districts, ₹ 28.33 crore had been released (March 2020 to December 2021) to DCs. Against this, ₹ 23.19 crore had been utilised and ₹ 1.47 crore had been surrendered. UCs/Statement of Expenditure, for the balance amount of ₹ 3.67 crore, had not been submitted by the DCs, as of July 2022. The Department did not furnish replies to the audit observation.

3.13.3.4 Utilisation of PM CARES fund

GoI released ₹ 17.97 crore, in two installments¹¹⁶, to the GoJ for welfare of migrant workers, viz. accommodation facilities, food arrangements, medical treatment and transportation arrangements. The Home, Prison & Disaster Management Department, GoJ, had released ₹ 14.15 crore to DCs in three installments¹¹⁷ and utilised ₹ 8.18 crore. UCs pertaining to the remaining amount of ₹ 5.97 crore, were not submitted by the DCs to the Home, Prison & Disaster Management Department, GoJ, as of February 2022.

In the six test-checked districts, ₹ 3.58 crore had been released (August 2020 to November 2021) to DCs. Against this, ₹ 2.75 crore had been utilised and ₹ 0.83 crore had remained unutilised with DCs, as of June 2022. The Department did not furnish replies to the audit observation.

¹¹⁴ DIC, Health Services, GoJ: ₹ 597.85 crore, Urban Development and Housing Department: ₹ 5.22 crore, Director-cum-Inspector General of Police, Jharkhand: ₹ 2.83 crore, Directorate of Information and Public Relations: ₹ 3 crore and the DCs of districts: ₹ 145.71 crore.

¹¹⁵ Chief Secretary: President; ACS, Planning-cum-Finance Department: Member; Principal Secretary, HME&FW Department: Member; Secretary Home, Jail and Disaster Management Department: Member Secretary.

¹¹⁶ 1st installment (June 2020): ₹ 8.67 crore and 2nd installment (June 2020): ₹ 9.30 crore

¹¹⁷ 1st installment (August 2020): ₹ 8.64 crore, 2nd installment (April 2021): ₹ 3.59 crore and 3rd installment (November 2021): ₹ 1.92 crore

3.14 RT-PCR testing of suspected COVID-19 patients

Collection of swabs from persons showing symptoms of COVID-19, their timely testing (RT-PCR test) and intimating the results immediately to the persons concerned, is necessary to avoid the spread of COVID-19.

Test-check of daily reports and other related records/ data, of SNMMCH, Dhanbad, for the period from April 2021 to May 2022, revealed that the Microbiology Department had received 45,954 swab samples, from the Deoghar, Dhanbad, Giridih, Godda and Jamtara districts, for conducting RT-PCR tests. Out of these, 33,399 swab samples had been tested and 12,555 samples (27 per cent) were pending for testing, as on 11 May 2022 (*Appendix 3.13*).

Further analysis of patient data revealed that transportation of the collected samples, from the collection points, to MCH, Dhanbad and testing of samples by MCH, Dhanbad, after receipt of samples, had consumed a significant amount of time, as shown in **Table 3.30**.

Table 3.30: Samples collected and tested

Sl. No.	District	Total Number of patients' data analysed	Range of delays from collection of samples to test result				Total Number of patients' data/ records with delayed test results
			5 to 15 days	16 to 30 days	31 to 60 days	More than two months	
1	2	3	4	5	6	7	8 (4+5+6+7)
Samples collected during April 2021 to November 2021							
1.	Bokaro	1,50,168	69,164	1,072	334	01	70,571
2.	Dhanbad	1,59,435	7,061	273	152	169	7,655
3.	Dumka	6,710	5,583	758	--	--	6,341
4.	Giridih	39,716	7,457	419	01	--	7,877
5.	Godda	4,245	3,207	1,038	--	--	4,245
6.	Hazaribag	3,794	3,514	03	--	--	3,517
7.	Jamtara	44,428	16,913	265	--	--	17,178
	Total	4,08,496	1,12,899	3,828	487	170	1,17,384
Samples collected during December 2021 to May 2022							
1.	Bokaro	31,200	19,450	81	50	--	19,581
2.	Deoghar	7,095	1,302	3,669	1,754	295	7,020
3.	Dhanbad	83,010	4,863	622	04	--	5,489
4.	Giridih	4,501	3,024	319	--	--	3,343
5.	Godda	7,107	2,177	2,656	1,943	315	7,091
6.	Jamtara	12,355	10,709	--	47	--	10,756
	Total	1,45,268	41,525	7,347	3,798	610	53,280

It can be seen from **Table 3.30** that testing of samples had taken five days to more than two months. Delay in testing of COVID samples can be attributed to non-setting up of PCR based laboratories in the districts, as discussed in **Chapter 5**. The Department accepted the facts and attributed (March 2023) the delay in RT-PCR testing to heavy patient load.

