

# 4 Availability of Drugs, Medicines, Equipment and Other consumables

Drugs are critical supplies in health care services and account for a sizeable proportion of the health budget. Access to and availability of low-cost, safe and quality drugs, is crucial in promoting confidence among patients and increasing the utilisation of health services. Further, availability of medical equipment and other consumables is essential for diagnosing, treating and monitoring patients.

## 4.1 Procurement of drugs and equipment

The Government of Jharkhand (GoJ) promulgated (June 2004) the Jharkhand State Drug Policy (JSDP), with the objective of ensuring the availability and accessibility of safe, effective and good quality essential medicines, to stakeholders at all levels of the healthcare system, through an efficient procurement and distribution system.

Subsequently, the GoJ partially modified (August 2015) the JSDP and nominated the Jharkhand Medical and Health Infrastructure Development and Procurement Corporation Limited (JMHDPCCL), as the central agency for procurement of medicines and equipment, for all hospitals, health centres, laboratories and other healthcare facilities of the State. The Director-in-Chief (DIC), Health Services, after compilation of annual demands from CS-cum-CMOs of districts and the Superintendents of Medical College and Hospitals (MCHs), was sending the consolidated indent to JMHDPCCL, for procurement of medicines and equipment. From FY 2018-19 onwards, the Department started a web-based supply chain management application for drugs, namely *e-Aushadhi*, for placement of demands by CS-cum-CMOs and Superintendents.

JMHDPCCL was to either procure medicines or to execute Rate Contracts with manufacturers, based upon which the CS-cum-CMOs/ Superintendents of Medical Colleges were to purchase medicines for hospitals. Drugs not covered by the Rate Contracts could be procured from firms having Rate Contracts with GoI or other State Governments for supply of drugs. Further, as per the JSDP, if no Rate Contract had been framed for a drug and procurement was warranted in an emergency situation, the same could be procured, from local vendors, by CS-cum-CMOs/ Superintendents.

Audit findings on various components/ aspects of drug management and procurement of equipment are discussed in the succeeding paragraphs.

#### 4.2 Utilisation of funds

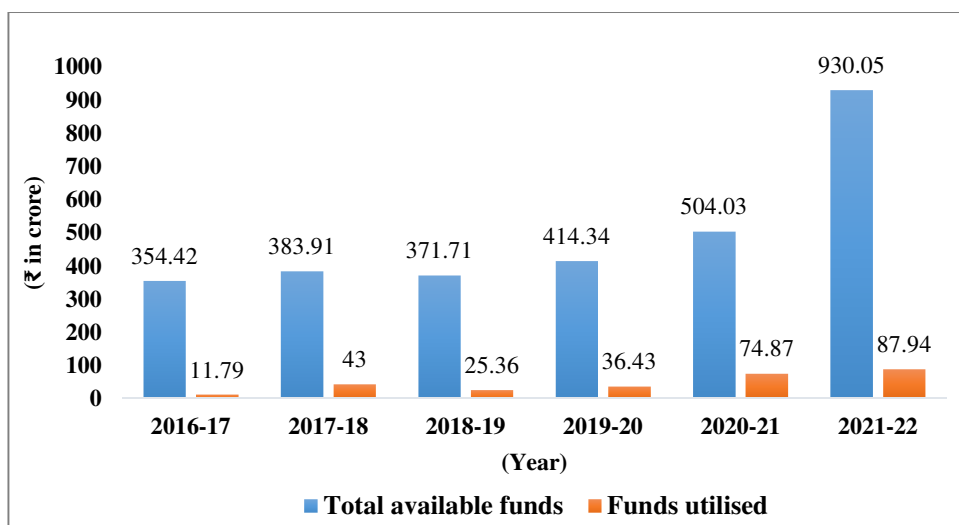
JMHIDPCL received ₹ 1,145.07 crore, during FYs 2016-17 to 2021-22, from the Director-in-Chief (DIC), Health Services; the Mission Director (MD), National Health Mission (NHM); and the Director, AYUSH, for procurement of drugs and equipment. Additionally, JMHIDPCL had an opening balance of ₹ 232.25 crore as on 1 April 2016 and had earned interest of ₹ 18.35 crore during FYs 2016-17 to 2021-22. Against the total available funds of ₹ 1,395.67 crore, only ₹ 279.39 crore (20 per cent) could be utilised during FYs 2016-17 to 2021-22. The remaining balance of ₹ 1,116.28 crore was partly surrendered (₹ 255.27 crore), partly refunded to NHM (₹ 18.90 crore) and partly parked in the Personal Ledger Account (₹ 324.55 crore) and Bank Accounts (₹ 517.56 crore) of the JMHIDPCL, as shown in **Table 4.1** and **Chart 4.1**.

**Table 4.1: Details of funds available and its utilisation during 2016-17 to 2021-22**

(₹ in crore)

Financial year	Opening Balance	Funds received during the year	Interest	Total available funds	Funds utilised	Amount surrendered/ refunded	Closing balance
1	2	3	4	5 (2+3+4)	6	7	8 (5-6-7)
2016-17	232.25	120.16	2.01	354.42	11.79	-	342.63
2017-18	342.63	39.34	1.94	383.91	43	18.90	322.01
2018-19	322.01	47.16	2.54	371.71	25.36	-	346.35
2019-20	346.35	64.6	3.39	414.34	36.43	-	377.91
2020-21	377.91	123.41	2.71	504.03	74.87	255.27	173.89
2021-22	173.89	750.4	5.76	930.05	87.94	0.0005	842.11
<b>Total</b>		<b>1,145.07</b>	<b>18.35</b>		<b>279.39</b>		

**Chart 4.1: Year-wise availability and utilisation of funds**



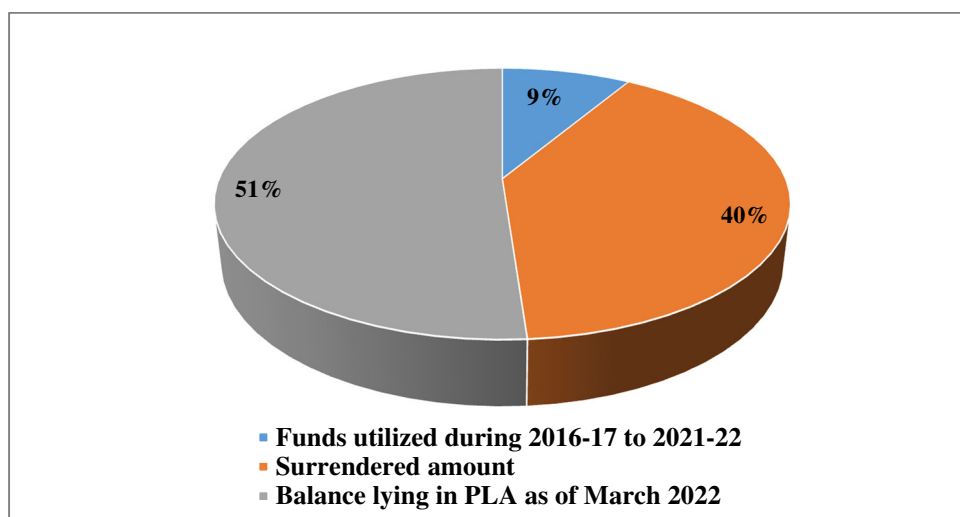
Non-utilisation of funds was mainly due to non/delayed-submission of demands by DIC and the absence of defined timelines for the procurement

process in JMHPCL, which had resulted in delay in procurement of medicines and equipment.

Audit further noticed that:

- Out of ₹ 634.52 crore<sup>118</sup> received from the Director-in-Chief (DIC), Health Services, GoJ, only ₹ 54.70 crore (9 per cent) (**Appendix-4.1** and **Chart 4.2**) could be utilised during FYs 2016-17 to 2021-22. An amount of ₹ 255.27 crore, out of the remaining balance of ₹ 579.82 crore, was surrendered (May 2020), as required under Rule 334<sup>119</sup> of the Jharkhand Treasury Code (JTC), as it had been lying unutilised in the Personal Ledger Account (PLA) of the JMHPCL for more than two consecutive financial years. The surrendered amount included ₹ 181.71 crore, which had been released for various purposes<sup>120</sup>, through separate allotments, but could not be spent/utilised. The balance amount<sup>121</sup> of ₹ 324.55 crore was lying in the PLA, as of March 2022.

**Chart 4.2: Percentage of utilisation of funds during FYs 2016-17 to 2021-22 (PLA)**



Out of ₹ 761.15 crore<sup>122</sup> of NHM, AYUSH and 15th Finance Commission funds, only ₹ 224.70 crore (30 per cent) was utilised during FYs 2016-17 to 2021-22, ₹ 18.90 crore was refunded to NHM

<sup>118</sup> The opening balance of FY 2016-17 was ₹ 201.08 crore and ₹ 433.44 crore was received during FYs 2016-17 to 2021-22.

<sup>119</sup> Money lying unspent after two consecutive financial years, in PLAs, should not be spent any further and balance should be transferred as reduction of expenditure to the concerned service head from which the money was withdrawn

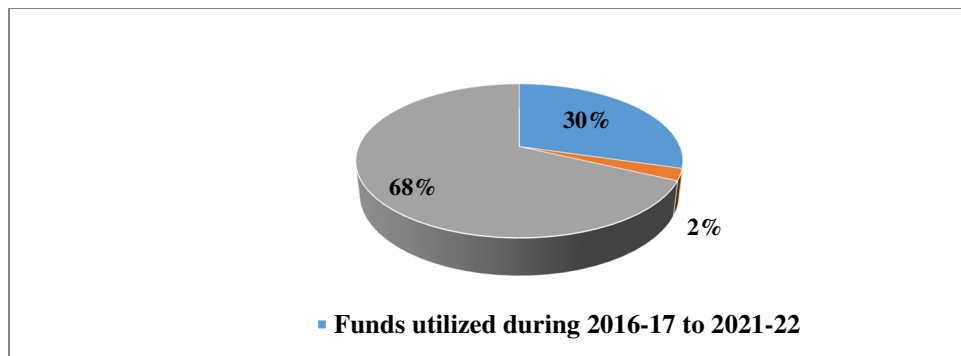
<sup>120</sup> Machine and equipment: ₹ 99.90 crore, Drugs: ₹ 40 crore, Ambulances: ₹ 1.44 crore, Hearse vehicles: ₹ 2.30 crore, Sanitary napkins: ₹ 15.53 crore, Furniture, fixture and consumables: ₹ 21 crore and Trauma centre: ₹ 1.54 crore.

<sup>121</sup> Balance amount is ₹ 579.82 – ₹ 255.27 = ₹ 324.55.

<sup>122</sup> ₹ 711.63 crore received during FYs 2016-17 to 2021-22, opening balance of ₹ 31.17 crore and interest of ₹ 18.35 crore.

and ₹ 517.55 crore was lying in the banks accounts of the JMHDPCCL, as on March 2022 (*Appendix-4.2* and *Chart 4.3*).

**Chart 4.3: Percentage of utilisation of funds during FYs 2016-17 to 2021-22 (Bank accounts)**



Non-utilisation of funds resulted in lack of essential drugs and equipment at the test-checked healthcare facilities, as discussed in the succeeding paragraphs. The Department accepted the facts and stated (March 2023) that shortage of human resources was the main reason for under-utilization of funds.

### 4.3 Essential Medicines

Essential medicines are those medicines which satisfy the healthcare needs of the majority of the population and should always be available in adequate quantities.

Based on the National Essential Drugs List, 2015, GoJ notified (February 2017) “Jharkhand List of Essential Medicines (JLEM), 2017”, containing 387 medicines, to be used in the primary (208 medicines), secondary (318 medicines) and tertiary level (387 medicines) healthcare facilities. Audit observed certain shortcomings in the procurement and availability of essential medicines, as discussed in the succeeding paragraphs.

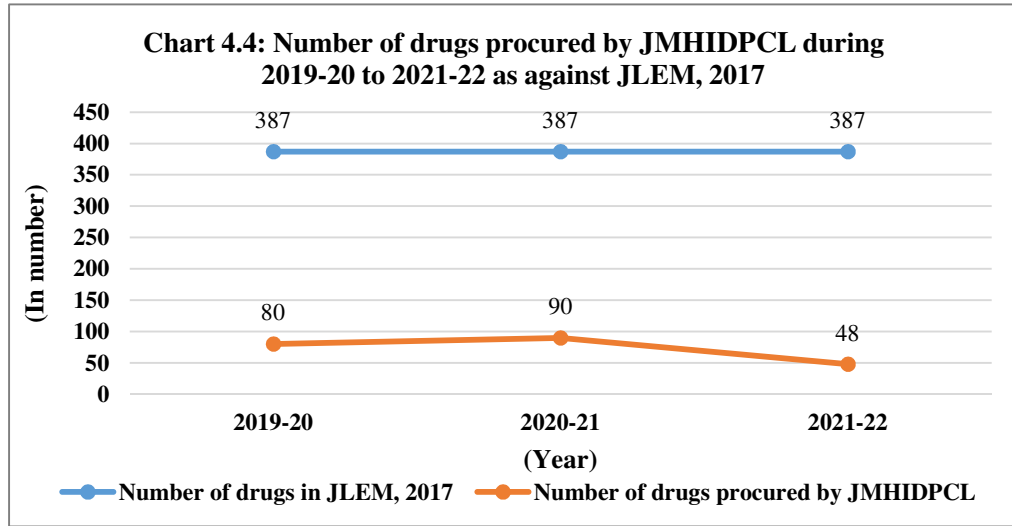
#### 4.3.1 Procurement of essential medicines

Audit scrutiny of the procurement process of essential medicines, during FYs 2019-20 to 2021-22, revealed that the DIC had submitted indents of essential medicines to JMHDPCCL. However, the indented medicines did not include all the medicines mentioned in the JLEM. Further, JMHDPCCL had procured much lesser quantities of essential medicines than indented for by the DIC, as shown in *Table 4.2* and *Chart 4.4*.

**Table 4.2: Details of medicines indented by the DIC and procurement by JMHPDCL**

Financial Year <sup>123</sup>	Number of drugs in JLEM, 2017	Number of drugs indented by DIC	Number of drugs procured by JMHPDCL (per cent of JLEM)	Numbers of essential medicines not procured (per cent)
2019-20	387	Not available	80 (21)	307 (79)
2020-21	387	354	90 (23)	297 (77)
2021-22	387	355	48 (12)	339 (88)

(Source: data provided by JMHPDCL)



It can be seen from **Table 4.2** that 77 to 88 *per cent* of the essential medicines could not be procured during FYs 2019-20 to 2021-22. Instead, JMHPDCL had procured (between April 2019 and October 2021) three medicines, *viz.* Amikacin Sulphate Injection, Cephalexin Capsule and Olanzapine Tablet, valued at ₹ 2.29 crore, though these medicines were not part of JLEM, 2017. In the absence of centralised procurement of essential medicines, there was shortage of these medicines at the healthcare facilities, despite local purchases by the Superintendents and CS-cum-CMOs, as was seen in the test-checked MCHs and districts, as discussed in **Paragraph 4.3.2**. The Department accepted the facts and stated (March 2023) that delays in the tendering process and shortage of human resources were the main reasons for purchase of lower quantities of medicines.

### 4.3.2 Availability of essential medicines

Audit scrutinised the status of availability and shortages of essential drugs, for two years, *viz.* FYs 2020-21 and 2021-22, in the test-checked MCHs, DHs and CHCs. Details in this regard are given in **Table 4.3**.

<sup>123</sup> Stock registers are not being maintained in JMHPDCL since FY 2016-17. The *e-Aushadhi* data provided by JMHPDCL includes purchase orders (POs), which are available from October 2018 onwards.

**Table 4.3: Details of essential medicines available in the test-checked healthcare facilities**

Test-checked units	Total number of essential drugs	Range of availability (in numbers)	Range of availability (in per cent)	Range of shortfall (in per cent)	Range of availability (in numbers)	Range of availability (in per cent)	Range of shortfall (in per cent)
		2020-21			2021-22		
14 CHCs	208	11 to 72	5 to 35	65 to 95	13 to 70	6 to 34	66 to 94
Five DHs <sup>124</sup>	318	49 to 98	15 to 31	69 to 85	43 to 92	14 to 29	71 to 86
Two MCHs	387	44 to 103	11 to 27	73 to 89	43 to 105	11 to 27	73 to 89

(Source: data provided by the test-checked units)

It can be seen from the **Table 4.3** that there was shortage of essential drugs, ranging from 65 to 95 per cent, with the test-checked CHCs, DHs and MCHs, during FYs 2020-21 and 2021-22 (**Appendix-4.3**).

Audit further noticed that, even available drugs were out of stock, in the test-checked CHCs, DHs and MCHs, during FYs 2020-21 and 2021-22, as shown in **Table 4.4**.

**Table 4.4: Details of 'stock-out drugs' in healthcare facilities**

Health facility	2020-21				2021-22			
	Number of 'stock-out' drugs	'Stock-out' position (in days)			Number of 'stock-out' drugs	'Stock-out' position (in days)		
		01-60	61-120	More than 120		01-60	61-120	More than 120
<b>Primary</b>								
CHC, Govindpur	11	04	03	04	08	02	00	06
CHC, Jharia	15	03	04	08	18	00	01	17
CHC, Shikaripara	33	03	04	26	20	00	01	19
CHC, Jarmundi	RNA*	RNA	RNA	RNA	RNA	RNA	RNA	RNA
CHC, Saraiyhat	17	00	00	17	34	00	01	33
CHC, Bhawnathpur	45	01	03	41	41	07	03	31
CHC, Manjhiaon	RNA	RNA	RNA	RNA	RNA	RNA	RNA	RNA
CHC, Bharno	14	06	01	07	13	02	02	09
CHC, Palkot	05	02	02	01	05	00	02	03
CHC, Raidih	RNA	RNA	RNA	RNA	RNA	RNA	RNA	RNA
CHC, Chandil	23	07	06	10	23	01	02	20
CHC, Nimdih	16	02	01	13	14	01	00	13
CHC, Bolba	17	06	03	08	16	01	02	13
CHC, Jaldega	29	01	07	21	20	00	02	18
<b>Secondary</b>								
DH, Garhwa	40	05	02	33	48	01	03	44
DH, Gumla	10	06	01	03	15	04	04	07
DH, Simdega	29	02	04	23	26	07	03	16
DH, Saraikela Kharsawan	23	04	07	12	26	07	03	16
DH, Dumka (PJMCH, Dumka) <sup>125</sup>	32	01	02	29	27	00	15	12
<b>Tertiary</b>								
SNMMCH, Dhanbad	12	02	04	06	21	07	04	10
RIMS, Ranchi	40	10	5	25	31	8	3	20
*Records not available								

(Source: Data provided by test-checked units)

**Colour code:** Red denotes most shortages, green denotes least shortages and yellow denotes moderate shortages.

<sup>124</sup> There was a common store of drugs, equipment and consumables for DH, Dumka and PJMCH, Dumka.

<sup>125</sup> There was a common store of drugs, equipment and consumables for DH, Dumka and PJMCH, Dumka.

It can be seen from **Table 4.4** that, during the said period, one to ten medicines were out of stock for periods ranging from one day to two months, one to 15 medicines for two to four months and one to 33 medicines for more than four months.

Thus, the prime objective of the Jharkhand State Drug Policy, *i.e.* to ensure availability and accessibility of safe and effective medicines to the people of the State, was not achieved. The Department accepted the facts and stated (March 2023) that JLEM, 2017 will be reviewed.

#### **4.3.3 Procurement of medicines with lower shelf life**

As per the Operational Guidelines for the Free Drugs Service Initiative<sup>126</sup>, issued (June 2015) by the Ministry of Health and Family Welfare, GoI, suppliers were to supply their products within 30 days from the date of their manufacture. In case, the products were received after 30 days from the date of their manufacture and the products were not consumed before their expiry date, the suppliers were to replace the short expiry/ expired quantities, with fresh stocks of longer shelf life. The expired products, if not replaced, were to be returned to the supplier and the value, equal to the cost of the expired quantity, was to be recovered from any dues payable, or by any other method. Further, all batches which had failed in the sample test were to be rejected and such stocks were to be returned to the supplier. After 30 days of the issue of the letter for return of stocks, if the supplier had failed to take back the stocks and they had remained lying in the warehouses, a penalty of two *per cent* per week was to be levied on the value of stocks in the warehouse, till they were destroyed.

Audit noticed that tender documents contained the condition that medicines should be delivered within 30 days from the date of their manufacture and they should have minimum 5/6<sup>th</sup> (83 *per cent*) of the shelf life on the date of delivery. Test-check of invoices related to the procurement of drugs by JHMIDPCL and data contained in the *e-Aushadhi* portal revealed the following:

- During FYs 2016-17 to 2021-22, 29 medicines were supplied after 133 to 485 days beyond the prescribed 30 days of their manufacture. Further, these medicines were supplied with their remaining shelf lives ranging from 47 to 76 *per cent*, which were less than the required 83 *per cent* (**Appendix-4.4**).
- Scrutiny of records of expired medicines revealed that 27.79 lakh units of 14 medicines, costing ₹ 1.12 crore, had not been supplied within 30 days of their manufacture and had expired (between October 2018 and November 2021) at the warehouse of the JMHIDPCL (**Appendix-4.5**).

<sup>126</sup> The initiative, under NHM, is to ensure that a set of essential drugs based on the level of public health facilities is made available free of cost to all who access these facilities.

No action was found to have been taken by the JMHPCL, either to replace the expired quantities with fresh stocks or return them to the concerned suppliers and realise the money involved, in lieu.

- During physical verification (June 2020) of warehouses of the JMHPCL, 30.66 lakh units of sub-standard medicines (six types) were found lying in the warehouses.

No action had been taken by the JMHPCL, either to replace the sub-standard medicines, or to realise the penalties thereagainst, from the suppliers. The Department accepted the facts and stated (March 2023) that penal action had been taken against such manufacturers, wherever found necessary. It was further stated that procurement of drugs as per provision of tenders/rules, would be ensured.

#### **4.3.4 Procurement of medicines from a banned Company**

JMHPCL intimated (December 2016) DIC, Health Services, that a purchase order (PO), for supply of 19 drugs, could not be issued to M/s. Jackson Laboratories Private Limited, Amritsar, as the Company had been banned by the Government of Uttar Pradesh. However, JMHPCL procured medicines worth ₹ 9.55 crore from the same Company during FYs 2018-19 to 2021-22. On this being pointed out, the MD, JMHPCL, stated that actually the Company had not been blacklisted, but the UP Government had issued instructions to its districts, to procure medicines from this Company, only after getting prior permission of the UP Government. The reply was contradictory to the earlier statement (December 2016) of JMHPCL itself, which stated that POs had not been issued to the same Company, as it was banned. The Department stated (March 2023) that the matter will be examined and reply furnished.

#### **4.3.5 Availability of drugs and consumables in OTs, ICUs and Maternity IPDs**

##### **4.3.5.1 Availability of drugs in OTs**

As prescribed in the NHM Assessor's Guidebook, 23 types of drugs should be available in OTs of DHs.

Audit noticed that not all the required drugs were available in the test-checked DHs, in any of the sampled months, as shown in **Table 4.5**.



**Table 4.5: Availability of essential drugs in OTs**

Name of District Hospital	No. of required essential drugs	No. of available essential drugs in the sampled month, in OTs					
		May-16	Aug-17	Nov-18	May-19	Aug-20	Nov-21
Dumka	23	7	12	10	12	12	14
Garhwa	23	4	4	4	4	4	4
Gumla	23	2	2	2	2	2	14 <sup>127</sup>
Saraikelela Kharsawan	23	4	5	6	7	17	16
Simdega	23	12	12	11	12	15	16

**Colour code:** Red = Very Poor (availability ≤ 50%), Yellow = poor (availability > 50 % but ≤ 80 %)

It can be seen from **Table 4.5** that only two to 17 (9 to 74 per cent) drugs were available in the OTs of the test-checked DHs, against the prescribed 23 drugs.

Acute shortage of prescribed drugs, in the OTs of these DHs, would have had an adverse impact on providing surgical care to patients. The Department accepted the facts and stated (March 2023) that the Director-in-Chief (Health Services) has been instructed to take remedial action.

#### 4.3.5.2 Availability of drugs and consumables in ICUs

The NHM Assessor's Guidebook prescribes the availability of 14 essential drugs and eight essential consumables in an ICU.

Audit observed that only five to eight drugs were available in the ICUs of DHs, Dumka and Gumla, during the sampled six months<sup>128</sup>, against the required 14 drugs. Similarly, only three to six consumables were available, against the required eight consumables. The Department accepted the facts and stated (March 2023) that the Director-in-Chief (Health Services) has been instructed to take remedial action.

#### 4.3.5.3 Availability of drugs in Maternity IPDs

To ascertain the availability of 21 essential drugs in maternity IPDs, as per the MNH Toolkit, Audit examined the data of six sampled months, during FYs 2016-17 to 2021-22, in the five test-checked DHs and noticed non-availability of essential drugs, as given in **Table 4.6**.

**Table 4.6: Non-availability of essential drugs in maternity IPDs**

DH	Number of essential drugs not available during					
	May 2016	August 2017	November 2018	May 2019	August 2020	November 2021
Dumka	11	8	11	10	7	13
Garhwa	12	13	11	10	12	12
Gumla	8	8	8	8	7	7
Saraikelela Kharsawan	13	12	12	10	8	6
Simdega	10	9	9	9	5	4

(Source: Records of test-checked DHs)

**Colour code:** Red = Shortage > 50%, Yellow = Shortage ≤ 50%

<sup>127</sup> Data pertains to October 2021

<sup>128</sup> May 2016, August 2017, November 2018, May 2019, August 2020 and November 2021

It can be seen from **Table 4.6** that there was shortage of drugs needed for maternity care, with the maternity IPDs of the test-checked DHs, in the sampled months. Vital drugs like Hydralazine<sup>129</sup> were not available, in the sampled months, in all the five test-checked DHs. Methyldopa<sup>130</sup> was also not available, in the sampled months, in three of the test-checked DHs<sup>131</sup>. Adrenaline, used in emergencies to treat very serious allergic reactions, for improving breathing, stimulating the heart, raising dropping blood pressure *etc.*, was also not found available, in any of the sampled months, in two DHs (Dumka and Garhwa). However, Adrenaline was available in all the sampled months at DH, Gumla, whereas, it was available in one sampled month (November 2021) at DH, Saraikela Kharsawan, and in two sampled months (August 2020 and November 2021) at DH, Simdega.

Non-availability of vital drugs, such as Hydralazine, Methyldopa and Adrenaline, compromised the ability of maternity IPDs to provide emergency and critical care.

#### 4.3.5.4 Availability of consumables in Maternity

Scrutiny of records in the test-checked DHs revealed non-availability of 20 essential consumables, prescribed under the MNH Toolkit, in the sampled six months, during FYs 2016-17 to 2021-22, as given in **Table 4.7**.

**Table 4.7: Non-availability of essential consumables**

DH	Number of essential consumables not available during					
	May 2016	August 2017	November 2018	May 2019	August 2020	November 2021
Dumka	12	12	11	11	11	10
Garhwa	13	9	9	NA	9	NA
Gumla	6	6	6	6	4	4
Saraikela Kharsawan	8	6	7	8	6	6
Simdega	NA	NA	NA	12	5	5

(Source: Records of the test-checked DHs)

**Colour code:** Red = Shortage > 50%, Yellow = Shortage ≤ 50% and Blue = Not available (NA)

Audit noticed that, out of the required 20 essential consumables, non-availability of these items ranged between four to 13 items, in the five test-checked DHs. Further, Nasogastric tubes, required for delivery and other maternity services, were not available in four of the test-checked DHs (except DH, Gumla).

Details of non-availability of essential consumables, in the sampled months, are shown in **Table 4.8**.

<sup>129</sup> First-line treatment for acute hypertension in *pregnancy* and heart failure.

<sup>130</sup> Used to treat high blood pressure in *pregnancy*.

<sup>131</sup> Dumka, Saraikela Kharsawan and Simdega.

**Table 4.8: Non-availability of essential consumables in the sampled months**

Essential consumables	DHs where essential consumables were not available in any of the sampled months
Draw sheets	Dumka, Garhwa and Gumla.
Identification tags	Dumka, Garhwa and Saraikela Kharsawan.
Thread for sutures	Dumka, Garhwa, Gumla and Simdega.
Baby wrapping sheets	Garhwa and Simdega.
Gown for woman in labour	Dumka, Garhwa and Simdega.
Chronic Catgut “0”	Dumka and Gumla.

(Source: Records of the test-checked DHs)

It can be seen from **Table 4.8** that essential consumables, required for delivery and other maternity services, were not available in the DHs. This adversely affected achievement of the objective of providing a clean and safe environment for the mother and the newborn.

#### 4.4 Availability of Equipment

##### 4.4.1 Availability of equipment in OTs

IPHS guidelines prescribe 21 types<sup>132</sup> of equipment for OTs in DHs with bed-capacity of up to 200 beds and one additional equipment<sup>133</sup> for OTs in DHs having bed-capacity between 200-300 beds. Further, IPHS prescribes 13 types of equipment for OTs in CHCs.

Availability of equipment, in the five test-checked DHs and 13 CHCs, as of March 2022, is shown in **Table 4.9**.

**Table 4.9: Availability of essential equipment in OTs**

Test-checked DHs/ CHCs	Bed capacity	Status of essential equipment (In Nos.)		
		Required	Available	Percentage of non-availability
<b>DHs (five)</b>				
Dumka	300	22	08	64
Garhwa	100	21	07	67
Gumla	100	21	11	48
Saraikela Kharsawan	100	21	10	52
Simdega	100	21	09	57
<b>CHCs (13)</b>				
Govindpur	10	13	06	54
Jharia	10	13	07	46
Shikaripara	30	13	06	54
Saraiyahat	30	13	07	46
Jarmundi	30	13	NA	-
Bhawnathpur	06	13	04	69

<sup>132</sup> Auto Clave HP Horizontal, Auto Clave HP Vertical (2 bin), Operation Table Hydraulic Major, Operation table Hydraulic Minor, Operating table non-hydraulic field type, Autoclave vertical single bin, Shadowless lamp ceiling type major, Shadowless lamp ceiling type minor, Shadowless lamp stand model, Focus lamp Ordinary, Sterilizer (Big instruments), Sterilizer (Medium instruments), Sterilizer (Small instruments), Bowl Sterilizer Big, Bowl Sterilizer Medium, Diathermy Machine (Electric Cautery), Suction Apparatus – Electrical, Suction Apparatus - Foot operated, Dehumidifier, Ultra violet lamp Philips model 4 feet and Microwave sterilizer.

<sup>133</sup> Operating table-Orthopaedics.

Test-checked DHs/ CHCs	Bed capacity	Status of essential equipment (In Nos.)		
		Required	Available	Percentage of non-availability
Manjhiaon	30	13	09	31
Bharno	30	13	06	54
Palkot	6	13	07	46
Raidih	30	13	07	46
Nimdih	30	13	11	15
Bolba	30	13	01	92
Jaldega	6	13	00	100

(Source: Test-checked DHs/CHCs)

**Colour code:** Red = Very Poor (Shortage  $\geq 40\%$ ), Yellow = Poor (Shortage  $\geq 20\%$  but  $< 40\%$ ), Green = Satisfactory (Shortage  $< 20\%$ )

It can be seen from **Table 4.9** that the shortages of OT equipment, in the five test-checked DHs, ranged between 48 to 67 per cent. The test-checked CHCs also had shortages of OT equipment, ranging between 15 and 100 per cent.

Shortages of equipment in OTs would have had an adverse impact on providing surgical care to patients in the DHs/CHCs. The Department accepted the facts and stated (March 2023) that the Director-in-Chief (Health Services) has been instructed to take remedial action.

#### 4.4.2 Availability of ICU Equipment

As per the IPHS, each ICU bed is required to be equipped with six essential equipment, viz. High-end Monitor, Ventilator, O<sub>2</sub> therapy devices, Deep Vein Thrombosis prevention devices suction, Infusion pumps and pipeline of O<sub>2</sub> (suction/ compressed air). Further, common facilities, viz. Ultrasound for invasive procedures, one Defibrillator and one Arterial Blood Gas (ABG) analysis machine, were also required in each ICU.

Audit observed that the ICUs of DHs, Dumka and Gumla, did not have three<sup>134</sup> out of the required nine types of ICU equipment, as of March 2022 (**Appendix 4.6**).

In the 15-bedded ICU at DH, Dumka, only two Infusion Pumps and 13 High-end Monitors were available against the requirement of 15 (one for each bed). Further, out of 17 ventilators, 15 ventilators received during the COVID-19 period had not been put to use, due to the absence of anaesthetist, physician and technician and were lying idle in the store, as shown in the **photographs 4.1** and **4.2** below.

<sup>134</sup> Arterial Blood Gas analysis machine, Deep Vein Thrombosis prevention devices suction and Ultrasound for invasive procedures.

Photograph 4.1



Photograph 4.2



Ventilators lying idle in the Store of DH, Dumka (29.08.2022)

#### 4.4.3 Availability of ophthalmology equipment

IPHS, 2012, prescribes 24 types of equipment for ophthalmology services in DHs. Availability of equipment in the test-checked DHs is shown in Table 4.10.

Table 4.10: Availability of essential equipment in the Ophthalmology wings, as of March 2022

DH	Ophthalmology		
	Number of items of equipment available	Shortage (in per cent)	Equipment not available
Dumka	21	03 (13)	Cryo Surgery Unit with retina probe, Binomags and Punctum Dilator.
Garhwa	13	11 (46)	Cryo Surgery Unit with retina probe, Perimeter, Binomags, Distant Vision Charts, Near Vision Charts, Foreign Body spud and needle, Lacrimal cannula and probes, Lid retractors (Desmarres), Punctum Dilator, YAG Laser and Flash Autoclave.
Gumla	18	06 (25)	Cryo Surgery Unit with retina probe, Perimeter, Binomags, Distant Vision Charts, Lacrimal cannula and probes and Lid retractors (Desmarres)
Saraikela Kharsawan	12	12 (50)	Cryo Surgery Unit with retina probe, Perimeter, Binomags, Distant Vision Charts, Near Vision Charts, Foreign Body spud and needle, Lacrimal cannula and probes, Lid retractors (Desmarres), Punctum Dilator, IOL Operation set, YAG Laser and Auto Refractometer.
Simdega	18	06 (25)	Perimeter, Binomags, Colour Vision Chart, YAG Laser, Auto Refractometer and Flash Autoclave

(Source: Test-checked DHs)

Red= Very poor (Shortage  $\geq 40\%$ ), Yellow= Poor (Shortage  $> 20\%$  but  $< 40\%$ ), Green = Satisfactory (Shortage  $< 20\%$ )

From Table 4.10, it can be seen that none of the test-checked DHs had all the equipment for Ophthalmology and the shortages ranged between 13 and 50 per cent. Further, the 'Ophthalmic Perimeter' in DH, Dumka, was non-functional, due to expiry of software, while one Ophthalmoscope was

non-functional in DH, Simdega. As against the required two IOL Operation sets, only one set each, was available in DHs, Garhwa and Gumla. The Department did not furnish replies to the audit observation.

#### 4.4.4 Availability of radiological equipment

The Indian Public Health Standards (IPHS), 2012, prescribe 11 types of radiological equipment (**Table 4.11**) for DHs. Further, IPHS prescribes X-ray machine, Dental X-ray machine, Electrocardiogram machine (ECG) and Ultrasound machine (USG) for CHCs and ECG for PHCs.

**Table 4.11: Requirement of radiological equipment in DHs**

Sl. No.	Equipment	Number of items of equipment required, as per IPHS	Number of items of equipment, required as per IPHS
		101-200 Bedded	201-300 Bedded
1	500 milli Ampere (mA) X-ray machine	1 Desirable	1
2	300 mA X-ray machine	1	1
3	100 mA X-ray machine	1	1
4	60 mA X-ray machine (mobile)	1 Desirable	1
5	C arm with accessories	1 Desirable	1 Desirable
6	Dental X-ray machine	1	1
7	Color Doppler Ultrasound machine with 4 probes	1 + 1	2 + 1
8	Portable Ultrasound	-	1 Desirable
9	C.T. Scan Multi slice	1 Desirable	1 Desirable
10	Mammography Unit	1 Desirable	1 Desirable
11	Echocardiogram	1 Desirable	1 Desirable

The status of availability of radiological equipment, in the test-checked five DHs and 14 CHCs, as of March 2022, is given in **Table 4.12** and **Table 4.13**, respectively.

**Table 4.12: Availability of radiological equipment in the test-checked DHs**

Name of DHs	No. of sanctioned beds	Name of Radiological equipment										
		X-ray (in mA)				C arm with accessories	Dental X-ray	Color Doppler Ultrasound machines with 4 probes	Portable Ultrasound	CT Scan Multi Slice	Mammography Unit	Echo-cardiogram
		500	300	100	60							
Dumka	300	1	0	3	0	0	0	0	1	0	0	0
Garhwa	100	0	0	1	0	0	0	0	1	0	0	0
Gumla	100	1	0	0	0	1	1	0	1	0	0	0
Saraike Kharsawan	100	0	1	2	0	0	1	1	0	0	0	0
Simdega	100	1	0	1	0	0	1	0	0	0	0	0

(Source: Test-checked DHs)

**Colour code:** Green = Essential and available; Red = Essential but not available; Yellow = Desirable and available and Blue = Desirable but not available

Table 4.13: Availability of radiological equipment in the test-checked CHCs

Name of CHCs	District	Name of radiological equipment			
		X-ray	Dental X-ray	ECG	Ultrasound
Govindpur	Dhanbad	0	0	0	0
Jharia	Dhanbad	0	0	0	0
Jarmundi	Dumka	1	0	0	0
Saraiyahat	Dumka	0	0	0	0
Shikaripara	Dumka	1	0	0	0
Bhawnathpur	Garhwa	1	0	1	0
Manjhiaon	Garhwa	1	0	1	0
Bharno	Gumla	0	1	0	0
Palkot	Gumla	1	0	0	0
Raidih	Gumla	1	0	0	0
Chandil	Saraikele Kharsawan	1	1	1	0
Nimdih	Saraikele Kharsawan	1	0	1	0
Bolba	Simdega	0	0	0	0
Jaldega	Simdega	0	1	0	0

(Source: Test-Checked CHCs)

**Colour code:** Green = Essential and available; Red = Essential but not available and Blue = Desirable but not available

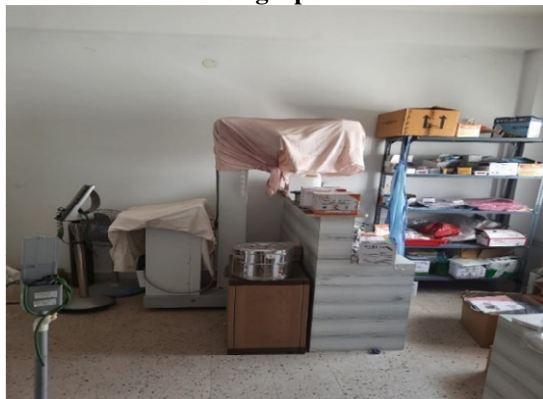
Audit noticed that:

- Out of the five test-checked DHs, only DH, Saraikele Kharsawan, had all the prescribed X-ray machines (100 mA and 300 mA). DH, Gumla, had an X-ray machine (500 mA) of higher radiation and penetration, against the required X-ray machines of 100 mA and 300 mA. As a result, the risk of patients being unnecessarily exposed to adverse effects of higher radiations could not be ruled out.
- X-ray machine of 100 mA was available in four DHs (except DH, Gumla). DH, Dumka, which had a bed capacity of 300, did not have the required 60 mA X-ray machine.
- X-ray machines were available in eight out of the 14 test-checked CHCs. However, X-ray machines had not been put to use in three CHCs<sup>135</sup>, after their receipt (between December, 2011 and August, 2013), due to non-availability of radiographers. **Photograph 4.3, 4.4 and 4.5** of idle X-ray machines at CHCs are shown below:

<sup>135</sup> Gumla district: CHC, Palkot (December 2011) & CHC, Raidih (December 2011) and Garhwa district: CHC, Manjhiaon (August 2013)



Photograph 4.3



Idle X-ray machine in CHC, Raidih  
(09.05.2022)

Photograph 4.4



Idle X-ray machine in CHC, Palkot  
(11.05.2022)

Photograph 4.5



Idle X-ray machine in CHC, Manjhiaon (05.08.2022)

- IPHS envisages eight types of X-ray room accessories<sup>136</sup> in DHs and CHCs. However, only two to seven types of X-ray room accessories were available in the five test-checked DHs (*Appendix 4.7*). Dossimeter<sup>137</sup>, an X-ray room accessory, used to measure radiation exposure, was not available in any of the test-checked DHs.
- Two to six types of X-ray room accessories were available in five<sup>138</sup> out of the eight test-checked CHCs where X-ray machines were available. However, Dark room timer<sup>139</sup> was not available in any of these CHCs (*Appendix 4.7*).
- Dental X-ray machines were available in three (Gumla, Saraikela Kharsawan and Simdega) out of the five test-checked DHs and in

<sup>136</sup> **For DHs:** X-ray developing tank, Safe light X-ray dark room, Cassettes X-ray, X-ray lobby single, X-ray lobby multiple, Lead apron, Intensifying screen X-ray and Dossimeter.

**For CHCs:** Apron lead ribber, Dark room accessories, Dark room timer, Film clips, Lead sheets, X-ray view box, X-ray protection screen and X-ray film processing tank.

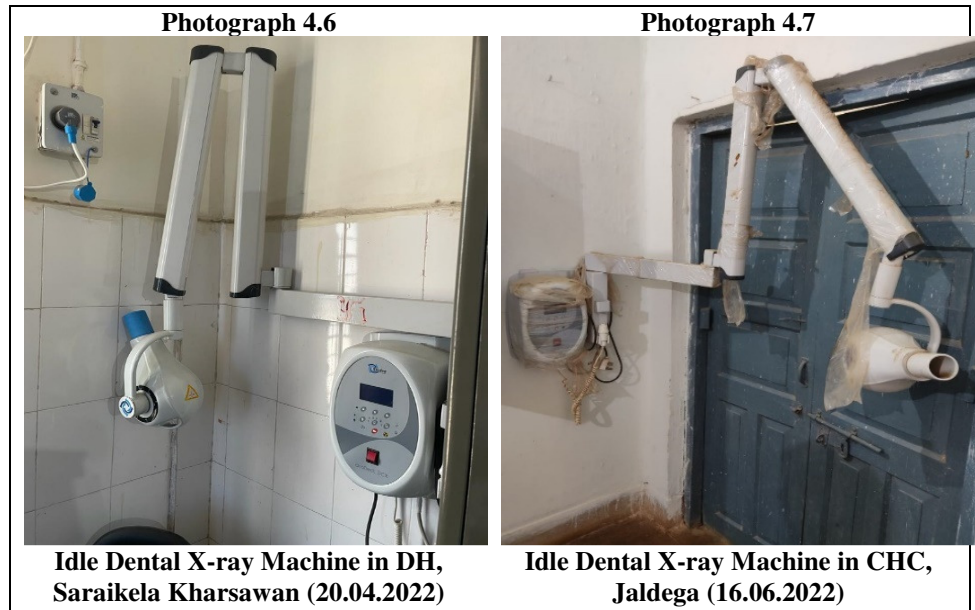
<sup>137</sup> **Dossimeter:** measures exposure to ionising radiation over a given period.

<sup>138</sup> Jarmundi, Bhawnathpur, Manjhiaon, Chandil and Nimdih

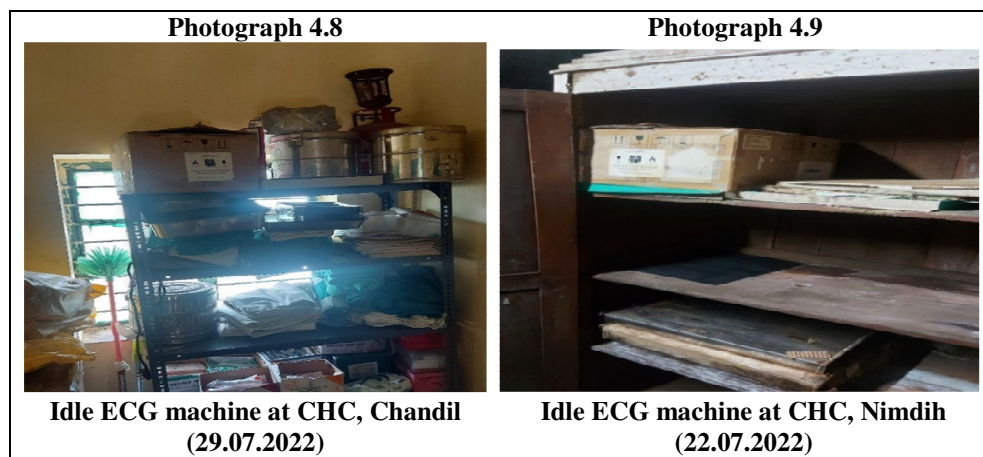
<sup>139</sup> Used for the measurement and easy reading of time intervals during procedures performed in a darkroom (*i.e.* processing of X-ray sheets).



three (Bharno, Chandil and Jaldega) out of the 14 test-checked CHCs. Although dental X-ray machines were available in DH, Saraikela Kharsawan (since August 2020) and CHC, Jaldega<sup>140</sup>, they were non-functional due to non-availability of dental X-ray film and dental chair, respectively. The non-functional dental X-ray machines are shown in the **photographs (4.6 and 4.7)** below:



- Electrocardiogram machines (ECG), as required, were not available in 10 out of the 14 test-checked CHCs<sup>141</sup> and all the 12 test-checked PHCs, as of March 2022. Though ECG machines had been available in four CHCs<sup>142</sup> (since June 2011 to May 2012), they were lying idle, for want of technicians/defects in the ECG machine, as shown in the **photographs (4.8 and 4.9)** below:



<sup>140</sup> Records of receipt of dental X-ray machine were not available on records.

<sup>141</sup> Except CHCs, Bhawnathpur, Manjhiaon, Chandil and Nimdih.

<sup>142</sup> CHC, Bhawnathpur (June 2011); CHC, Manjhiaon (2012-13); CHC, Chandil (March 2012) and CHC, Nimdih (May 2012).

- Ultrasound (USG) machines were available in four out of the five test-checked DHs (except DH, Simdega). Color Doppler USG was available only in DH, Saraikela Kharsawan, whereas the remaining three DHs (Dumka, Garhwa and Gumla) had portable USGs, instead of the required Color Doppler USGs. Audit further observed that the USGs, available at two DHs<sup>143</sup>, were non-functional, due to non-availability of Radiologists.

Thus, access of patients to evidence-based treatment facilities and quality health care was limited in the test-checked DHs/CHCs/PHCs, due to non-availability of the required radiological equipment and skilled manpower. 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.

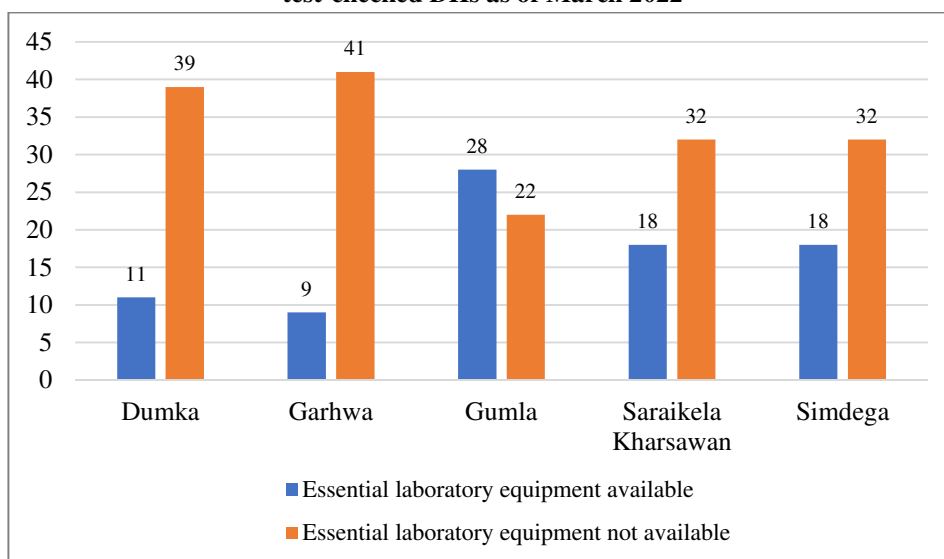
#### 4.4.5 Availability of Laboratory equipment

IPHS prescribes availability of 50, 10 and seven types of essential laboratory equipment, for DHs, CHCs and PHCs, respectively.

Details of the availability of essential laboratory equipment, in the test-checked DHs/CHCs/PHCs, are given in **Appendix 4.8**. Audit observed that:

- Against the required 50 essential items of laboratory equipment, only nine to 28 items of equipment were available in the five test-checked DHs, as shown in **Chart 4.5** below:

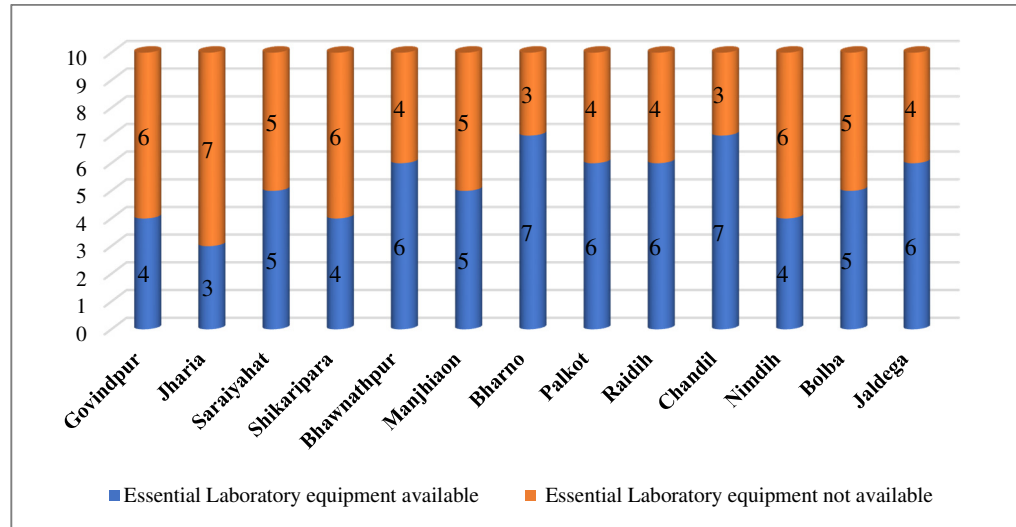
**Chart 4.5: Availability/Non-availability of essential laboratory equipment in the test-checked DHs as of March 2022**



<sup>143</sup> DH, Garhwa (Non-functional since May 2021) and DH, Gumla (Non-functional since September 2013).

- Three to seven items, out of 10 items of laboratory equipment, were available in 13<sup>144</sup> out of the 14 test-checked CHCs, as shown in **Chart 4.6**.

**Chart 4.6: Availability/Non-availability of essential laboratory equipment in the test-checked CHCs as of March 2022**



- In five<sup>145</sup> out of the 12 functional test-checked PHCs, where laboratory services were available, the full range of the prescribed laboratory equipment was available only in PHC, Kandi (Garhwa). In two PHCs<sup>146</sup>, the availability of essential laboratory equipment ranged between one and three, whereas no laboratory equipment was available in two PHCs<sup>147</sup>.

Thus, the full range of prescribed laboratory equipment was not available in the test-checked DHs/ CHCs/ PHCs. This resulted in depriving patients from availing evidence-based health care. The Department accepted the facts and stated (March 2023) that funds for purchase of equipment, consumables *etc.* will be provided to strengthen the Pathology services.

Details of shortages of these essential resources, in the five test-checked DHs, are discussed in the succeeding paragraphs.

#### 4.4.6 Availability of equipment in Special Newborn Care Unit

As per IPHS, 14 types of essential equipment are required in 12-bedded SNCUs, for individual patient care. Details of the availability of equipment in SNCUs, in the five test-checked DHs, are given in **Table 4.14**.

<sup>144</sup> Details of CHC Jarmundi (Dumka district), were not made available.

<sup>145</sup> PHCs, Bhaga, Kandi, Arangi, Chowlibasa and Bansjore.

<sup>146</sup> PHCs, Chowlibasa and PHC, Bansjore.

<sup>147</sup> PHCs, Bhaga and Arangi.

**Table 4.14: Availability of essential equipment in SNCUs as of March 2022**

Sl. No.	Item	Required quantity	Dumka	Garhwa	Gumla	Saraikela Kharsawan	Simdega
1	Servo-controlled Radiant Warmer (1 for each bed +2)	14	15	12	12	12	12
2	Low-Reading Digital Thermometer	12	10	5	5	12	6
3	Neonatal Stethoscope (1 for each bed +2)	14	8	6	6	12	11
4	Neonatal Resuscitation Kit and Neonatal laryngoscope (1 for each bed +2)	14	6	4	6	0	2
5	Suction Machine	12	4	2	2	2	4
6	Oxygen Hood (unbreakable-neonatal/infant size)	12	5	0	0	12	0
7	Non-stretchable measuring tape	12	4	60	2	0	1
8	Infusion pump or syringe pump (1 for every 2 beds)	6	15	2	14	3	6
9	Pulse Oxymeter (1 for every 2 beds)	6	6	5	10	5	9
10	Double Outlet Oxygen Concentrator (1 for every 3 beds)	4	4	4	20	4	8
11	Double Sided Blue Light Phototherapy (1 for every 3 beds)	4	0	0	6	0	12
12	Generator (15 KVA)	1	1	1	1	1	0
13	CFL Phototherapy (1 for every 3 beds)	4	6	6	0	6	0
14	Horizontal Laminar Flow	1	0	0	0	0	0
<b>Total</b>		<b>116</b>	<b>84</b>	<b>107</b>	<b>84</b>	<b>69</b>	<b>71</b>

(Source: Test-checked DHs)

**Colour code:** Red = Availability < 50%, Yellow = Availability 50% to 75%, Green = Availability 76% to 100%

It can be seen from **Table 4.14** that the distribution of SNCU equipment, among DHs, was skewed, as some equipment was in excess of requirements, whereas the same equipment was short with other DHs. Further, Horizontal Laminar Flow was not available in any of the test-checked DHs and Double Sided Blue Light Phototherapy was not available in three out of the five test-checked DHs.

Further, as per IPHS, 11 types of general equipment and nine types of disinfection equipment, were also required in SNCUs. Audit noticed non-availability of four types of general equipment with DH, Dumka, eight with DH, Garhwa, three with DH, Gumla, 10 with DH, Saraikela Kharsawan, and six with DH, Simdega. Similarly, four to nine types of disinfection equipment were not available<sup>148</sup> in the five test-checked DHs.

Short/ non-availability of required equipment in SNCUs was one of the reasons behind newborns being referred either to higher healthcare facilities or leaving the hospital against medical advice, as shown in **Table 3.15**. The Department accepted the facts (March 2023).

<sup>148</sup> Non-availability of disinfection equipment in DHs- Dumka: five types, Garhwa: nine types, Gumla: five types, Saraikela Kharsawan: seven types and Simdega: four types.

#### 4.4.7 Availability of Equipment in Maternity IPDs

According to IPHS, DHs are required to ensure the availability of 27 types of essential equipment, for examination and monitoring of patients under maternity, for DHs having up to 300 beds.

Audit observed that the test-checked DHs did not have adequate essential equipment, as of March 2022, as shown in **Table 4.15**.

**Table 4.15: Equipment not available in DHs**

DH	Number of equipment not available (percentage)	Name of equipment not available
Dumka	09 (33)	Baby Incubator, Phototherapy Unit, Forceps delivery kit, Craniotomy, Vacuum Extractor metal, Head Box for Oxygen, Haemoglobinometer, Glucometer and Public Address System.
Garhwa	16 (59)	Baby Incubator, Phototherapy Unit, Emergency resuscitation kit, New-born care equipment, Room Warmer, Cardio Tocography monitor, Episiotomy kit, Forceps delivery kit, Craniotomy, Vacuum Extractor metal, Silastic Vacuum Extractor, Cardiac Monitor baby & adult, Nebulizer baby, Weighing Machine infant, Head Box for Oxygen and Public Address System.
Gumla	7 (26)	Baby Incubator, New-born care equipment, Cardio Tocography monitor, Craniotomy, Vacuum Extractor Metal, Silastic vacuum extractor and Public address system.
Saraikela Kharsawan	15 (56)	Baby Incubator, Standard weighing scale, New-born Care equipment, Cardio Tocography Monitor, Craniotomy, Silastic vacuum extractor, Vacuum Extractor Metal, Pulse Oxymeter baby & adult, Cardiac monitor baby & adult, Nebulizer baby, Weighing machine infant, Head box for oxygen, Haemoglobinometer, Public Address System and wall clock.
Simdega	19 (70)	Baby Incubator, Standard weighing scale, New-born Care equipment, Double-Outlet Oxygen Concentrator, Cardio Tocography Monitor, Room warmer, Foetal Doppler, Delivery kit, Episiotomy kit, Forceps delivery kit, Craniotomy, Silastic Vacuum Extractor, Vacuum Extractor metal, Pulse Oxymeter baby & adult, Cardiac monitor baby & adult, Weighing machine adult, Head box for oxygen, Haemoglobinometer and Public Address System

**Colour code: Red = Shortage > 50%, Yellow = Shortage ≤ 50%**

It can be seen from **Table 4.15** that the test-checked DHs did not have essential items of equipment, with the shortage of these items of equipment ranging between seven and 19. Further, three out of the five test-checked DHs lacked more than 50 *per cent* of the essential equipment, with the shortage of essential equipment, in the test-checked DHs, ranging between 26 and 70 *per cent*.

#### 4.4.8 Equipment lying idle

District Public Health Laboratory (DPHL) was to be established<sup>149</sup> in DH, Simdega, for strengthening of the laboratory of the DH.

<sup>149</sup> As per State Surveillance Officer, IDSP, Jharkhand, Ranchi, vide letter no. IDSP/DPHL/ 14-01-26 dated 12 March 2018.

Audit observed that a tender was invited (March 2018) for procurement of 17 items of laboratory equipment<sup>150</sup>, by the Civil Surgeon-cum-Chief Medical Officer, Simdega. In response, five bids were received and the purchase committee approved (April 2018) rates for only three equipment<sup>151</sup>. A re-tender was floated (May 2018) for the remaining 14 items of equipment and their rates were approved<sup>152</sup> in May 2018. Subsequently agreements were executed (between January 2019 and February 2019) between the selected bidders<sup>153</sup> and CS-cum-CMO, Simdega, for supply of the laboratory equipment. Ultimately, 11 items of laboratory equipment were supplied (between March and June 2019) to DH, Simdega. However, during joint physical verification (August 2022) of the Laboratory, Audit noticed that six items of equipment<sup>154</sup>, valued at ₹ 15.89 lakh, were lying idle in the Laboratory/ Store, due to non-availability of Pathologist and Microbiologist. The Department did not furnish replies to the audit observation.

#### **4.4.9 Availability of equipment in Medical Colleges**

##### **4.4.9.1 Shortage of medical equipment, department-wise, in Medical Colleges**

Medical Colleges are required to maintain Department-wise medical equipment, as per the prescribed standard list of MCI/ NMC. The Department-wise availability of medical equipment, as of March 2022, against the prescribed norms of MCI/ NMC, is shown in **Table 4.16**.

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<sup>150</sup> (1) Biological safety cabinet (2) Vertical Autoclave (3) Autoclave (Horizontal) for sterilization (4) BOD Biological incubator (5) Automated ELISA Micro Plate Washer (6) ELISA Reader (7) Adjustable Volume Single Channel Pipettes (8) Fine Analytical Balance (Weighing scale) (9) Vortex Mixture (10) Water Bath (11) -20 degree C vertical Deep Freezer (12) Hot Air Oven (13) Binocular Microscope (14) Needle Destroyer (15) Refrigerator (285 L) (16) Centrifuge and (17) Computer (Desktop/Laptop), Printer and Scanner.

<sup>151</sup> Vertical Autoclave and Horizontal Autoclave for sterilization (in favour of M/s KK Pharmaceuticals, Jamshedpur) and Binocular Microscope ((in favour of M/s Radical Scientific Equipment Private Limited, Ambala Cantt, Haryana)

<sup>152</sup> In favour of M/s. Matrix Eco Solution Private Limited, New Delhi and M/s. K Pharmaceuticals, Jamshedpur.

<sup>153</sup> M/s Matrix Eco Solution Private Limited, New Delhi and M/s K Pharmaceuticals, Jamshedpur. Records of agreement executed with bidder M/s Radical Instruments Corporation, Chennai was not available on records furnished to Audit.

<sup>154</sup> Biological Safety Cabinet, Hot Air Oven, Vertical Autoclave, Automated ELISA Micro Plate Washer, ELISA Reader and -20 degree C Vertical Deep Freezer.



Table 4.16: Department-wise availability of medical equipment

Sl. No.	Department	No of items (prescribed by MCI) for 100 seats	PJMCH, Dumka		SNMMCH, Dhanbad		RIMS, Ranchi		
			No. of items available	Shortage (Number/ per cent)	No. of items available	Shortage (Number/ per cent)	No of items (prescribed by MCI) for 150 seats	No. of items available	Shortage (Number/ per cent)
1	Anatomy	35	23	12 (34)	34	01 (3)	38	36	2(5)
2	Anaesthesiology	13	RNA*	RNA	9	04(31)	51	27	24(47)
3	Biochemistry	39	33	6(15)	18	21 (54)	32	15	17(53)
4	ENT	124	RNA	RNA	69	55 (44)	128	99	29(23)
5	Medicine	54	03	51 (94)	19	35(65)	53	18	35 (66)
6	Microbiology	45	21	24 (53)	28	17 (38)	52	38	14 (27)
7	Obstetrics and Gynaecology	98	RNA	RNA	35	63 (64)	100	73	27(27)
8	Ophthalmology	40	17	23 (58)	32	08 (20)	40	25	15 (38)
9	Pathology	85	49	36(42)	57	28 (33)	98	46	52(53)
10	Pharmacology	139	79	60 (43)	41	98 (71)	14	07	07(50)
11	Physiology	70	32	38 (54)	64	06(09)	85	18	67 (79)
12	Surgery	51	13	38 (75)	18	33 (65)	42	25	17(40)
13	Forensic Medicine and Toxicology (FMT)	45	27	18 (40)	21	24 (53)	78	40	38(48)
14	Paediatrics	57	06	51 (89)	RNA	RNA	49	09	40(81)
15	Dermatology, Venereology and Leprosy	06	RNA	RNA	02	04(67)	08	03	05(63)
16	Community Medicine	29	RNA	RNA	29	00	76	16	60 (79)
17	Psychiatry	12	01	11(92)	00	12 (100)	13	00	13(100)
18	Orthopedics	10	01	09 (90)	04	06 (60)	25	16	09 (36)

\*RNA: Records not available

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

**Colour code:** Red denotes most shortages, green denotes least shortages and yellow denotes moderate shortages.

It can be seen from **Table 4.16** that shortages of medical equipment in PJMCH, Dumka, ranged between 15 and 94 *per cent*, whereas, in SNMMCH, Dhanbad, they ranged between three and 100 *per cent*, except in the Community Medicine Department. In RIMS, Ranchi, the shortages ranged between five and 100 *per cent*.

Despite the huge shortage of equipment, PJMCH, Dumka, surrendered ₹ 1.25 crore, during FYs 2020-21 to 2021-22 and SNMMCH, Dhanbad, surrendered ₹ 23.19 crore, during FYs 2016-17 to 2021-22 (which had been allotted for procurement of machine and equipment). Such shortages affected the practical training and education of medical students, as well as service delivery by the teaching hospitals. The Department accepted the

facts and stated (March 2023) that action for purchase of medical equipment will be taken.

#### **4.4.9.2 Non-condemnation of medical equipment**

The State Government had engaged (June 2017) an agency for carrying out annual maintenance of medical equipment, not covered under the Annual Maintenance Contracts (AMCs)/ Comprehensive Maintenance Contracts (CMCs), in all healthcare facilities in the State, for a period of five years.

Audit noticed that the agency had tagged 1,247 medical equipment in SNMMCH, Dhanbad and 206 medical equipment in PJMCH, Dumka. Out of these, the agency had proposed condemnation of 317 (25 per cent) items of equipment of SNMMCH, Dhanbad (between September 2017 and February 2022), valued at ₹ 3.40 crore, and 24 (12 per cent) items of equipment of PJMCH, Dumka (between November 2017 and February 2022), valued at ₹ 50.96 lakh.

Further, test-check of the Service Reports<sup>155</sup> of the agency's engineers revealed that the items of medical equipment had been proposed for condemnation, as they were stated to be Beyond Economic Repair (BER). However, these items of equipment had not been condemned by the MCHs, as of July 2022.

Thus, replenishment of these urgently required machines and equipment had not been carried out. This situation is bound to further worsen the inventory position, as there was already a significant shortage of medical equipment.

Non-condemnation of medical equipment would not only inflate the inventory of functional machines and equipment but is also likely to compromise the quality of healthcare services, if these items of equipment are allowed to be used. The Department did not furnish replies to the audit observation.

### **4.5 Procurement of dental equipment**

The State Nodal Officer (SNO), State Non-Communicable Diseases (NCD) Cell and DIC, submitted (March 2017 and March 2018) indents to JMHDPCCL, for procurement of 10 types<sup>156</sup> of dental equipment (3,080 Nos.), for setting up Dental Clinics under the National Oral Health

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<sup>155</sup> SNMMCH, Dhanbad: 25 reports, pertaining to the period between May 2021 and March 2022 and PJMCH, Dumka: eight reports, pertaining to the period between February 2021 and May 2022.

<sup>156</sup> Electronic Dental chair with adequate accessories, Autoclave (Electronic), Instrument for manual cleaning of teeth, Ultrasonic scalar & Polishing kit, dental X-ray unit with developer, Light cure gun, Extraction forceps, Restorative (filling) instrument, Impression trays for RPDs and CDs and Root canal instrument set (Manual).



Programme (NOHP). JMHPCL invited (August 2018) a tender for supply, testing, demonstration, installation and commissioning of these items of dental equipment.

However, bids were finalised in respect of six<sup>157</sup> types of equipment and POs were issued (September 2019 and June 2020) to the two lowest bidders. Tender was again invited (July 2019) for the remaining four types of equipment. However, bids were finalised only for the Dental chairs, as single bids had been received for the other three equipment. The PO, for supply of 108 Dental chairs, was issued (June 2020) to the lowest bidder.

Thus, JMHPCL had taken more than four to five years to finalise the procurement of the indented dental equipment and had been able to procure only seven out of 10 types of equipment needed for setting up the Dental Clinics (as of March 2022). The Department accepted (March 2023) the audit observation.

***Recommendation: State Government may ensure availability of drugs, medicines, equipment and other consumables in healthcare facilities as per norms.***

#### 4.6 Quality Assurance

As per the Jharkhand State Drug Policy (JSDP), 2004, the State was to ensure quality control of medicines, through testing, at selected Government or Private laboratories. Further, Good Manufacturing Practices<sup>158</sup> (GMP) was to be promoted and inspections of the manufacturing units were to be conducted. Further, as per the Operational Guidelines relating to the Free Drugs Service Initiative, issued by GoI, drugs received in district warehouses were to be quarantined in a clearly demarcated and segregated quarantine area and the boxes were to be numbered. Thereafter, the samples required for testing were to be drawn randomly from selected cartons, containers and packings, from the supplies of each batch. These were then to be sent to the Quality Control Wing of the Central Procurement Body (JMHPCL) at the State level.

In the Quality Control Wing, samples received were to be sorted, common batch number drugs were to be mixed and sample was to be drawn from the pooled quantity. Label details, viz. Manufacturer's name, manufacturing license number, logo or monogram of the Company, were to be concealed by indelible ink, coded with a secret number and sent to

<sup>157</sup> Dental Instrument set, intra-oral dental X-ray machine with developer, extraction forceps, restorative (filling) instruments, impression trays and root canal instrument set.

<sup>158</sup> GMPs are practices that provide minimum requirements that manufacturers must meet, to assure that their products are consistently high in quality, from batch to batch, for their intended use.

one of the National Accreditation Board of Laboratory (NABL) accredited empanelled laboratories, for analysis.

After receipt of test reports from the empanelled laboratories, the batches which had 'passed' the test would get a 'Release' confirmation through the IT system or, where such specific IT systems were not available, the concerned Warehouse-in-Charges would be informed, through email, to shift the stocks of such batches, from the quarantine area, to the distribution area, for release. All failed batches were to be rejected and such stocks returned to the concerned suppliers.

Audit observed shortcomings in the quality assurance of medicines, as discussed in the succeeding paragraph.

#### **4.6.1 Distribution of drugs without confirming their quality**

Audit noticed that JMHDPCCL had been maintaining drugs quality status reports, in the *e-Aushadhi* portal, since June 2021. Scrutiny of data of *e-Aushadhi* revealed that three medicines<sup>159</sup> had been supplied (between 30 April 2021 and 28 July 2021) to two District Warehouses (Godda and Sahibganj) and the Central Warehouse, against purchase orders issued (between 22 February 2021 and 3 June 2021) by JMHDPCCL. JMHDPCCL had sent (between 29 June 2021 and 29 July 2021) samples of these medicines to two<sup>160</sup> laboratories, for quality testing. The quality test reports were received between 16 July 2021 and 19 August 2021. However, both the District Warehouses had already issued (between 1 June 2021 and 7 August 2021) 20.95 lakh tablets, out of 24.36 lakh tablets, to 10 CHCs, prior to receipt of the quality test reports (*Appendix 4.9*).

Further, the Central Warehouse had also issued (28 July 2021) 11,200 units of the Iron Folic Acid syrup, to the District Warehouse, Koderma, prior to receipt (19 August 2021) of the quality test reports. Subsequently, the District Warehouse had also issued (29 July 2021) 600 units of the syrup, to CHC, Jainagar, without confirming its quality (*Appendix 4.9*).

Thus, the warehouses had issued medicines to CHCs, without confirming their quality. The Department stated (March 2023) that the matter will be examined.

#### **4.6.2 Distribution of Sub-standard drugs**

As per the JSDP, the GoJ is to ensure accessibility of safe, effective and good quality essential medicines, to the people of the State. Audit, however, observed that sub-standard drugs had been distributed in

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<sup>159</sup> Iron plus Folic Acid Blue tablet (60 mg + 500 mcg), Albendazole tablet 400 mg and Iron plus Folic Acid 20mg Ferrous Iron plus 0.1 mg Folic Acid Syrup 50ml.

<sup>160</sup> ITL Labs Pvt. Ltd. and Shree Sai Test House Pvt. Ltd.

healthcare facilities in the test-checked districts, viz. one MCH<sup>161</sup>, three DHs<sup>162</sup> and eight CHCs<sup>163</sup>, as discussed below:

- The Superintendent, PJMCH, Dumka, had purchased (June 2021) 10,000 tablets of Arripan 40 mg (Pantaprazole Gastro-Resistant tablets) bearing Batch No. AT-201095. A sample of the tablet was sent (August 2021) to the Regional Drug Testing Laboratory (RDTL), Guwahati, by the Drug Inspector, Dumka. The sample was reported (January 2022) as being ‘not of standard quality’ by the laboratory. However, prior to receipt of the report, the entire quantity had been distributed (between June 2021 and October 2021) to OPD patients.
- Audit noticed that JMhidpCL had procured (May 2021) 24.52 lakh tablets of Telmisartan 40 mg, bearing Batch No: TETY-01, valued at ₹ 15.45 lakh. Of these, 23.23 lakh tablets had been issued (between July 2021 and December 2021) to 23 District Warehouses (except Pakur). The Drug Inspectors (DIs), Bokaro I and Bokaro II, sent (October 2021) three samples of the same medicine to the Regional Drug Testing Laboratory (RDTL), Guwahati, for testing. RDTL found (December 2021 and February 2022) all samples “not of standard quality” and communicated (February 2022) the results to the State Drug Controller, Jharkhand, and DI, Bokaro I. Subsequently, the State Drug Control Directorate (SDCD) communicated (February 2022 and March 2022) the results to all Drug Inspectors, with copies to NHM, JMhidpCL and all Joint/ Deputy/ Assistant Directors (Drugs), through “Alert Notice”, with instructions to seize the stocks of the medicine, for further examination.

It was further seen that the District Warehouses of the six test-checked districts had received (between July and November 2021) 1,41,000 tablets of the same medicine and, out of these, 1,39,500 tablets had been issued to healthcare facilities, either prior to or after getting the test results, as detailed in **Table 4.17**.

<sup>161</sup> PJMCH, Dumka.

<sup>162</sup> DH, Garhwa, DH, Saraikela Kharsawan and DH, Simdega.

<sup>163</sup> CHC, Govindpur, CHC, Saraiyahat, CHC, Manjhiaon, CHC, Bhawnathpur, CHC, Chandil, CHC, Nimdih, CHC, Bolba and CHC, Jaldega.

**Table 4.17: Details of sub-standard Telmisartan 40 mg tablets issued to the test-checked districts**

Name of Warehouse	Quantity received	Date of receipt	Quantity issued	Date of issue	Issued to	Remarks
Dhanbad	24,000	24.07.2021	24,000	From 08.09.2021 to 23.04.2022	One DH & eight CHCs	CHC, Govindpur (test-checked CHC) received (14 September 2021) 2,500 tablets and issued (between 5 July 2022 and 20 July 2022) 1,300 tablets in OPD and 1,200 tablets to HSCs, on 25 July 2022.
Dumka	2,000	30.07.2021	2,000	28.10.2021	One CHC	CHC, Saraiyahat (test-checked CHC) issued 300 tablets in OPD and 1,700 tablets to HSCs, between October and November 2021.
Gumla	2,000	27.07.2021	500	01.09.2021	One Urban PHC	The remaining 1,500 quantities were kept in warehouse.
Garhwa	8,000	25.11.2021	8,000	From 29.11.2021 to 18.02.2022	One DH & seven CHCs	DH, Garhwa (test-checked DH) received 1,000 tablets (21 December 2021) and all the tablets were issued in the hospital OPD, on the same date. CHC, Manjhiaon (test-checked CHC) received 1,000 tablets (30 November 2021), out of which 500 tablets were issued in OPD (05 December 2021) and the remaining 500 tablets were issued to one PHC, on the same date. CHC, Bhawnathpur (test-checked CHC) received 2,000 tablets (between 01 December 2021 and 18 February 2022) and all the tablets were issued to HSCs, between 30 December 2021 and 03 March 2022.
Saraikeela Kharsawan	93,000	04.08.2021	93,000	21.08.2021	One DH, eight CHCs & one PHC	DH, Saraikeela Kharsawan (test-checked DH) issued (between September 2021 and March 2022), 2,900 tablets to the hospital OPD and IPD. CHC, Chandil (test-checked CHC) issued 12,000 tablets in OPD (August 2021).
Simdega	12,000	29.07.2021	12,000	From 01.09.2021 to 24.09.2021	One DH & seven CHCs	DH, Simdega (test-checked DH) received 2000 tablets (06 September 2021) and all tablets were issued to the Hospital OPD, between 05 October 2021 and 12 February 2022. CHC, Bolba (test-checked CHC) received 1,000 tablets (07 September 2021) and all the tablets were issued to HSCs, between 10 September 2021 and 19 September 2021. CHC, Jaldega (test-checked CHC) received 1000 tablets (06 September 2021), out of which 200 tables were issued to the OPD on 09 September 2021, while the remaining 800 tablets were issued to PHCs and HSCs on the same date.
<b>Total</b>	<b>1,41,000</b>		<b>1,39,500</b>			

(Source: data provided by the test-checked units)

- Audit noticed that JMHDPCCL had procured (October 2020) 13.76 lakh Zinc Sulphate Dispersible Tablet 20 mg bearing Batch No: RVT-2072, valued at ₹ 1.65 lakh, which were issued (between

November 2020 and February 2021) to 11 District Warehouses<sup>164</sup>. The Drug Inspectors (DIs), Ranchi VII and Bokaro III, sent (15 January 2021 and 20 July 2021) samples of this medicine to the State Drug Testing Laboratory (SDTL), Jharkhand, Ranchi, for testing. SDTL found (09 February 2021 and 31 August 2021) the samples “not of standard quality”. The result was communicated by the DI, Ranchi VII (23 February 2021), to JMHDPCCL, with copies to the State Drug Control Directorate (SDCD), all Civil Surgeons & all DIs, with instructions to stop the distribution of stock immediately and to take necessary action for “Product Recall”. SDCD also directed (September 2021) all DIs to take necessary action.

It was further seen that the District Warehouses, of three out of the six test-checked districts, had received (between December 2020 and February 2021) 2,72,000 tablets of the medicine and, out of these, 2,46,400 tablets had been issued to healthcare facilities, either prior to or after getting the test results, as detailed in **Table 4.18**.

**Table 4.18: Details of substandard Zinc Sulphate Dispersible Tablet 20 mg tablets, issued to the test-checked districts**

Name of Warehouse	Quantity received	Date of receipt	Quantity issued	Date of issue	Issued to	Remarks
Dhanbad	32,000	04.12.2020	6,400	From 24.02.21 to 09.03.2021	Two CHCs	CHC, Govindpur (test-checked CHC) received (9 March 2021) 3,200 tablets and issued (16 September 2021) 900 tablets in OPD. It also issued 2,300 tablets to HSCs, between November 2021 and February 2022.
Garhwa	1,60,000	07.01.2021	1,60,000	12.01.2021 to 16.04.2021	One DH, one SDH & six CHCs	Issued 1,44,000 tablets prior, to receipt of the test report.
Saraikela Kharsawan	80,000	03.02.2021	80,000	11.02.2021	One DH and eight CHCs	DH, Saraikela Kharsawan (test-checked DH) received 2,000 tablets (11 February 2021) and issued them in the hospital OPD on the same date. CHC, Chandil (test-checked CHC) received (11 February 2021) 13,000 tablets and issued 1,800 tablets in the OPD, on 22 February 2021. The remaining 11,200 tablets were issued to PHCs and HSCs on same date. CHC, Nimdih (test-checked CHC) received 13,000 tablets (11 February 2021) and issued 2,000 tablets in OPD, on 24 February 2021. The remaining 11,000 tablets were issued to HSCs, between 20 March 2021 and 26 February 2022.
	<b>2,72,000</b>		<b>2,46,400</b>			

(Source: Data provided by the test-checked units and e-Aushadhi)

<sup>164</sup> Bokaro, Chatra, Deoghar, Dhanbad, East Singhbhum, Garhwa, Godda, Palamu, Ramgarh, Ranchi and Saraikela Kharsawan.

- The District Warehouse, Dhanbad, received (27 January 2021) three Homeopathic medicines<sup>165</sup> from JMHIDPCL which were reported (March 2021) as “not of standard quality” by the Pharmacopoeia Commission for Indian Medicine & Homeopathy, Ministry of AYUSH, GoI, to the DI, Ranchi VII. DI, Ranchi VII, communicated the test results to JMHIDPCL, with instructions to stop distribution of the stock immediately and to take necessary action for “Product Recall”, with a copy of this information to SDCD, Ranchi, and all DIs in Jharkhand, in May 2021. Further, Director AYUSH, Jharkhand, instructed (August 2021) all District AYUSH Medical Officers, to distribute all other Homeopathic medicines, except these three medicines. These medicines were issued (March 2021) to the District AYUSH Dispensary, Dhanbad and subsequently issued (from March to July 2021) to three CHCs<sup>166</sup>, two PHCs<sup>167</sup> and the Government Homeopathic Dispensary, Mahubani.

Thus, sub-standard medicines were issued to healthcare facilities or distributed to patients, either prior to getting the quality test reports or even after confirmation of the medicines being sub-standard. The Department stated (March 2023) that the matter will be examined.

#### 4.7 Store Management

The Jharkhand State Drug Policy, 2004, prescribes that an appropriate system of storage and stock management is necessary for safe and adequate stocking of drugs. The Drugs and Cosmetic Rules, 1945, stipulates parameters for the storage of drugs in stores, to maintain the efficacy of the procured drugs, before they are issued to patients.

During test-check of 18 healthcare facilities<sup>168</sup> (12 CHCs, four DHs and two MCHs) and the Central warehouse of JMHIDPCL, Audit observed deficiencies in adhering to the prescribed norms and parameters in storage of drugs, as summarised in **Table 4.19**.

<sup>165</sup> (1) Natrum Muruticum 6X tablet 450 gm: 48 packets (Batch No. BC200801), (2) Natrum Sulphuricum 6X tablet 450 gm: 48 packets (Batch No. BC200901) and (3) Silicea 6X tablet 450 gm: 48 packets (Batch No. BC201201).

<sup>166</sup> CHC, Baghmara, CHC, Kenduadih and CHC, Nagarkiyari

<sup>167</sup> PHC, Sindri and PHC, Gomo

<sup>168</sup> (1) SNMMCH, Dhanbad (2) PJMCH, Dumka (3) DH, Garhwa (4) DH, Gumla (5) DH, Saraikela Kharsawan (6) DH, Simdega (7) CHC, Jharia (8) CHC, Govindpur (9) CHC, Jarmundi (10) CHC, Saraiyahat (11) CHC, Shikaripara (12) CHC, Bharno (13) CHC, Palkot (14) CHC, Raidih (15) CHC, Chandil (16) CHC, Nimdih (17) CHC, Bolba and 18. CHC, Jaldega.

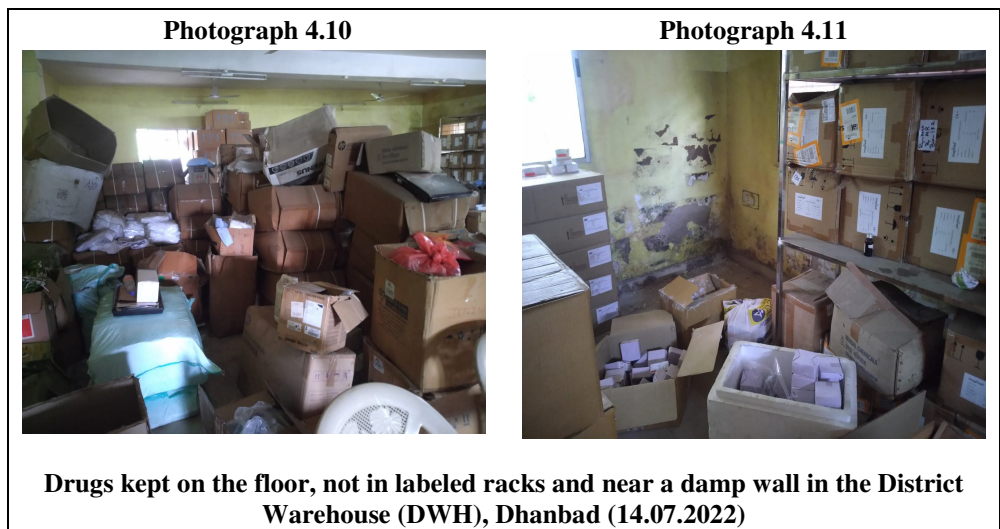


**Table 4.19: Deficiencies noticed in the storage of drugs in stores as of March 2022**

Sl. No.	Parameters	No. of test-checked healthcare facilities with deficiencies	Probable impact of deficiencies
1	Air-conditioned pharmacy	18	Loss of efficacy and shelf life of drugs
2	Labelled shelves/racks	08	High turnover time in the disbursement of drugs
3	Storage away from water and heat	02	Loss of efficacy and shelf life of drugs
4	Drugs stored above the floor	07	Loss of efficacy and shelf life of drugs
5	Drugs stored away from walls	07	Loss of efficacy and shelf life of drugs
6	24-hour temperature recording of cold storage area	06	Loss of efficacy and shelf life of drugs
7	Display instructions for storage of vaccines	08	High turnover time in the disbursement of vaccine
8	Functional temperature monitoring device in freezers	05	Loss of efficacy and shelf life of drugs
9	Maintenance of temperature chart of deep freezers	04	Loss of efficacy and shelf life of drugs
10	Drugs kept under lock and key	02	Risk of theft of drugs and equipment
11	Poison kept in a locked cupboard	07	Risk for unauthorised access to poisonous drugs
12	Expired drugs stored separately	06	Risk for disbursement of expired drugs

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

It can be seen from **Table 4.19** that the test-checked healthcare facilities were not fully adhering to the norms for storage of drugs, which are directly linked with loss of efficacy, shelf life and safety of drugs as can be seen in **photographs 4.10 to 4.16**.



Photograph 4.12



Drugs kept near toilet, in CHC, Chandil, Saraikela Kharsawan (30.07.2022)

Photograph 4.13



Drugs kept on the floor, not in labeled racks and near a wall, in CHC, Jharia, Dhanbad (23.08.2022)

Photograph 4.14



Drugs kept on the floor, not segregated name & batch-wise, near a wall and not away from water & heat, in the Central Warehouse of JMHIDPCL, Ranchi (04.11.2022)

Photograph 4.15



Drugs kept on the floor and near a wall, in CHC, Raidih, Gumla (09.05.2022)

Photograph 4.16



Drugs kept in the passage near the store of CHC, Jarmundi, Dumka (29.08.2022)

**Recommendation:** State Government may ensure storage of drugs in proper condition, as prescribed in the Drugs and Cosmetics Rules, 1945, to maintain their efficacy, shelf life and safety.



#### 4.7.1 Maintenance of Stock registers and physical verification of stores

As per the Standard Operating Procedures issued by the Department, regarding storage of medicines and equipment in the Warehouse, Stock Registers should contain the dates of receipt, order numbers and dates, names of the suppliers, challan numbers and dates, batch numbers, dates of manufacture and dates of expiry. Further, as per Rules 143 and 144 of the Jharkhand Financial Rules, physical verification of all stores should be carried out at least once every year and a certificate in this regard should be recorded.

Audit observed that:

- The Warehouses (Malaria Warehouse and Warehouse No. 2) of JMHPCL had not maintained Stock Registers from FY 2016-17 to FY 2021-22. Several instructions for maintaining the stock registers had been issued (between August 2020 and February 2022) to both the Store Keepers, by MD, JMHPCL and the Cell-in-Charge (Logistic and Quality Control) of JMHPCL, but it had still not been maintained (as of March 2022). Further, JMHPCL had not initiated any action against the Store Keepers. The annual physical verification of both the warehouses of JMHPCL, was also not conducted by the authorities of JMHPCL during FYs 2016-17 to 2021-22, except once in July 2020 (on the basis of the balance available on the *e-Aushdhi* portal), in which the following irregularities were noticed.
  - In Warehouse No. 2, some drugs had not been kept batch-wise. Hence, the actual balance of the drugs (batch-wise) could not be ascertained.
  - In Warehouse No. 2, 10.07 lakh Metronidazole Tablets IP 200 mg were available, but had not been entered in the *e-aushadhi* portal (**Appendix 4.10-A**).
  - The quantities of 12 drugs were found to be in excess by 42.76 lakh units, whereas eight medicines were found short by 21.32 lakh units, as compared to the quantity available on the *e-Aushadhi* portal (**Appendices 4.10-B & 4.10-C**).
- Audit observed that, out of the six test-checked District Warehouses (DWH), three DWHs<sup>169</sup> had conducted annual physical verification. In DWH, Garhwa, and Simdega, verification had been conducted (January 2021 and January 2022, respectively) only once, during FY 2016-17 to 2021-22. In DWH, Garhwa, the stock register was not found updated and contained over-writing, without bearing the initials of the concerned authority. The stocking of medicines was also not

<sup>169</sup> Dumka, Garhwa and Simdega.

appropriate and expired medicines, not stocked out, were also found. Further, in DWH, Dumka, though annual physical verification had been conducted every year, the physical verification reports were not made available to Audit. None of the remaining test-checked three MCHs, five DHs, 14 CHCs and 13 PHCs, had conducted physical verification of stores/warehouses during FYs 2016-17 to 2021-22. The Department accepted the facts and stated (March 2023) that instructions have been issued for maintenance of stock registers.

#### **4.7.2 Supply and distribution**

The Jharkhand State Drug Policy 2004, stipulated the establishment of an efficient system of supply and distribution. Till such time that the Central and Regional Warehouses, for storage of the supplies received and their distribution to the MCHs and districts, were constructed, warehouses at the district/peripheral healthcare facilities were to be constructed/renovated, to provide adequate space for stocking the drugs.

Audit observed that, as of March 2022, there were two Central Warehouses with JMHPCL, at the State level, and 24 District Warehouses at the district level. There was no Regional Warehouse in the State. The MCHs and District Warehouses were receiving medicines from Central Warehouses and directly from suppliers, against the purchase orders issued by JMHPCL.

Audit scrutiny revealed that DWHs, Godda and Jamtara, had made complaints to JMHPCL regarding the supply of drugs being lesser, as compared to the quantities mentioned in the issue vouchers, as also in regard to supply of termite affected drugs, as under:

- DWH, Godda had received (February 2021) 32 types of drugs, supplied (February 2021) by JMHPCL. There was short supply of 8,732 units<sup>170</sup> in regard to 05 types of drugs, as only 94,826 units were found to have been supplied against the reported supply (February 2021) of 1,03,558 units.
- DWH, Jamtara, received (February 2021) 35 types of drugs, supplied (February 2021) by the JMHPCL. Out of these, two<sup>171</sup> types of drugs were found less by 400 units and 240 units of one drug (Ampicillin Powder for Injection 1g with diluent) had been supplied without diluent. Further, JMHPCL had supplied (January 2021) 6,500 Cefixime Oral Suspension IP 100 mg/5ml 30 ml pH, bearing Batch No. DS-22269. Of these, 100 were termite-affected and, hence,

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<sup>170</sup> (1) Acetazolamide tablet 250 mg: 2,900 (2) Cefazidime powder for injection 250 mg: 432 (3) Clonazepam tablet 0.25 mg: 50 (4) Omeprazole capsule 20 mg: 4600 and (5) Tranexamic Acid injection 100 mg/ml in 5 ml ampule: 750.

<sup>171</sup> Ascorbic Acid tablet 100 mg: 100 and Riboflavin tablets 5 mg: 300.

had been returned to JMHPCL through the same transport. The same was, however, not rectified on the *e-Aushadhi* portal, by JMHPCL.

JMHPCL also constituted (March 2021) a three-member Committee to examine the issue of short supply. The Committee was to submit its findings within seven days. However, the findings or action taken, if any, were not furnished to Audit. The Department did not furnish replies to the audit observation.

#### 4.8 Buffer Stock Management of COVID-19 drugs

##### 4.8.1 Availability of Buffer Stock of COVID-19 drugs at the State level

As per the ECRP-II Guidance Note, State Governments need to maintain buffer stocks of drugs, in order to ensure continuous supply of drugs for treatment of COVID-19, as well as drugs required for management of the sequel to COVID-19, such as Mucormycosis and Multisystem Inflammatory Syndrome in Children (MIS-C), during any future surge.

Based on the guidelines issued (June 2021) by GoI, for Buffer Stock Management of COVID-19 Drugs, the State Government assessed (August 2021) its requirement of buffer stock of drugs. As per the assessment, so made, buffer stocks of eight<sup>172</sup> drugs were to be maintained, with the objective of expanding and enhancing capabilities for responding to any unforeseen emerging situations; ensuring continuous supplies and guarding against high-cost procurement. Details of assessment, availability and shortage of these drugs, as of August 2021, are given in **Table 4.20**.

**Table 4.20: Availability of drugs required for buffer stocks in the State, as on August 2021**

Sl. No.	Name of drugs (Injection)	Quantity required	Quantity required for buffer stock	Total quantity required	Available in stock	Shortage of stock (per cent)
1	Enoxaparin 40 mg	79,911	7,991	87,902	22,254	65,648 (75)
2	Methyl Prednisolone 40mg/ml	79,911	7,991	87,902	37,028	50,874 (58)
3	Dexamethasone 4mg/ml	79,911	7,991	87,902	1,77,477	-89,575
4	Remdesivir 100 mg per vial	62,539	6,254	68,793	93,714	-24,921
5	Tocilizumab 400 mg	4,169	417	4,586	699	3,887 (85)
6	Amphotericin B Deoxycholate 50 mg per vial	799	80	879	558	321 (37)
7	Posaconazole 300 mg per vial	799	80	879	0	879 (100)
8	Intravenous Immunoglobulin (IVIG) 2g/kg	104	10	114	0	114 (100)

(Source: MD, NHM)

<sup>172</sup> Enoxaparin Inj. 40mg, Methyl Prednisolone Inj. 40mg/ml, Dexamethasone Inj. 4mg/ml, Remdesivir Inj. 100mg per vial, Tocilizumab Inj. 400mg, Amphotericin B Deoxycholate Inj. 50mg per vial, Posaconazole Inj. 300mg/ml and Intravenous Immunoglobulin (IVIG) 2g/kg.

It can be seen from **Table 4.20** that two drugs, namely Posaconazole 300 mg (879) and IVIG 2g/kg (114) drugs, were not available at all. Shortage of four drugs was 37 to 85 *per cent*, whereas two drugs were available in excess of the required quantity.

It was further seen that the six test-checked districts did not have four<sup>173</sup> out of the eight prescribed drugs, which were required for the treatment of COVID-19, or managing its sequel, during FYs 2020-21 and 2021-22.

#### 4.8.2 Availability and utilisation of Injection Remdesivir

Audit observed that 1,64,761 vials of Injection Remdesivir were received (July 2020 to June 2021) in the Central Warehouse, Namkum, Ranchi, and 1,11,556 vials were distributed ( July 2020 to February 2022) to the CS-cum-CMOs of all the 24 districts; RIMS, Ranchi; MGM, Jamshedpur; CCL Hospital, Kanke; Military Hospital, Namkum; JMHDPCL; Drugs Controller *etc.* The balance 53,205 vials were still lying in the stock of State Warehouse, as of February 2022. Details are given in **Table 4.21**.

**Table 4.21: Receipt, issue, expiry and balance of Injection Remdesivir, in the State and in the District Warehouses of the test-checked districts**

Sl. No.	Particulars	Quantity received	Date of receipt		Quantity issued	Date of issue		Quantity expired	Balance
			From	To		From	To		
<b>I</b>	<b>State</b>	1,64,761	17-07-2020	25-06-2021	1,11,556	17-07-2020	18-02-2022	0	53,205
<b>II</b>	<b>District Ware House</b>								
1	Dhanbad	4,027	30-09-2020	01-06-2021	1,501	30-09-2020	11-01-2022	1,758	768
2	Dumka	2,655	28-08-2020	08-02-2022	2,620	06-04-2021	08-02-2022	35	0
3	Garhwa	3,132	11-04-2021	31-05-2021	371	11-04-2021	10-06-2021	2,353	408
4	Gumla	2,464	21-04-2021	25-02-2022	402	22-04-2021	13-05-2021	480	1,582
5	Saraikela Kharsawan	1,788	25-04-2021	13-06-2021	1,788	26-04-2021	14-06-2021	0	0
6	Simdega	1,448	23-04-2021	28-05-2021	100	29-04-2021	14-05-2021	730	618
	<b>Total</b>	<b>15,514</b>			<b>6,782</b>			<b>5,356</b>	<b>3,376</b>

(Source: Records of NHM and the test-checked districts)

It can be seen from **Table 4.21** that, in the six test-checked districts, out of 15,514 vials received from the State warehouse, only 6,782 vials had been distributed to the health care facilities, 5,356 vials had expired and 3,376 vials had remained unutilised in the district warehouse, as of April 2022.

Further, Audit noticed that, in the five test-checked DHs, out of 4,739 vials received (between April 2021 and February 2022) in the store, only 696 vials (*15 per cent*) had been utilised. Out of the remaining 4,043 vials, 2,512 vials had expired and 1,531 vials had remained unutilised, in the stores of DHs, as of April 2022, as detailed in **Table 4.22**.

<sup>173</sup> Tocilizumab Inj. 400 mg, Amphotericin B Deoxycholate Inj. 50 mg per vial, Posaconazole Inj. 300 mg/ml and Intravenous Immunoglobulin (IVIG) 2g/kg.

**Table 4.22: Receipt, utilisation, expiry and balance of Remdesivir injection in the test-checked DHs**

Sl. No.	DH	Quantity received	Date of receipt		Quantity utilised	Quantity expired	Balance in stock/store
			From	To			
1	Dumka	2,608	06-04-2021	08-02-2022	298	1,272	1,038
2	Garhwa	125	22-04-2021	10-06-2021	114	0	11
3	Gumla	402	22-04-2021	13-05-2021	52	350	0
4	Saraikela-Kharsawan	1,524	26-04-2021	07-06-2021	160	890	474
5	Simdega	80	29-04-2021		72	0	8
<b>Total</b>		<b>4,739</b>			<b>696</b>	<b>2,512</b>	<b>1,531</b>

(Source: DHs of the concerned districts)

It is evident from the above that Remdesivir Injection had been supplied to districts without proper assessment of requirements, which had resulted in expiry and non-utilisation of a significant quantity of the stocks issued to them. The Department stated (March 2023) that the matter would be examined.

#### 4.8.3 Irregularities in distribution of Remdesivir injection

As per Standard Operating Procedures (SOP) for Storage and Management of Warehouses, drugs are to be issued from the Warehouse, based on the strength of the appropriate indents.

Scrutiny of the Stock Register of the Central Warehouse, Namkum, Ranchi revealed that 6,990 vials of Remdesivir Injections had been shown as having been supplied (April 2021) to the Drugs Controller, Ranchi. However, delivery challans revealed that these Injections had been issued to two private suppliers *i.e.*, M/s. Medi Sales India Private Limited, Ranchi (2,040 vials) and M/s. Harihar Medical Agency Private Limited, Ranchi (4,950 vials), purportedly on telephonic orders of the MD, NHM and the Drug Controller, Jharkhand. It was noticed that M/s Harihar Medical Agency Private Limited, Ranchi, was also a supplier of Remdesivir Injections to the Warehouse, during the same period.

On Audit query, the Director (Drugs), State Drug Control Directorate, Jharkhand, Ranchi, stated (March 2022) that neither had indents for the said Injection been sent, nor had the Injections been received, by his office. Thus, misappropriation of 6,990 vials of Remdesivir Injections could not be ruled out. The Department stated (March 2023) that the matter would be examined.

#### 4.8.4 Non-accountal of Remdesivir Injections

Remdesivir Injection (174 vials), shown in the Stock Register of the Central Warehouse, Namkum, Ranchi, as having been issued (May 2021) to the District Warehouse (DWH), Garhwa, were not found accounted for in the Stock Register of DWH, Garhwa. Further, out of 1,560 vials of

Remdesivir Injection, issued (between April and June 2021) by DWH, Saraikela Kharsawan, to DH, Saraikela Kharsawan, only 1,524 vials were found to have been accounted for in the Stock Register of the DH. As such there was a shortage of 36 vials (*Appendix 4.11*).

Thus, misutilisation of 210 vials of Remdesivir Injections could not be ruled out. The Department stated (March 2023) that action will be taken after examination of the facts.

#### **4.8.5 Loss of government money**

NHM provided (May 2021 to January 2022) four types<sup>174</sup> of Injections to JMHIDPCL, for distribution. As per instructions (April 2021) of JRHMS, Government or Private Health Institutions were to submit requisitions, through email, after assessment of needs had been carried out by Specialists of the Health Institutions. A Committee constituted by JRHMS, under the chairmanship of Director-in-Chief, Health Services, Jharkhand, was to discuss/analyse the requisitions of the institutions and recommend issue of the injections. After approval by the State Nodal Officer, on the recommendations of the Committee, the approvals were to be intimated to the concerned Health Institutions, by the JMHIDPCL. Thereafter, the concerned institutions were to send an authorised person to receive the Injections, with cheques, or with Demand Drafts, in favour of JMHIDPCL, equal to the price of the Injections, based on the price/rate prescribed/ fixed by the Directorate of Drugs.

JMHIDPCL did not furnish records related to receipt and distribution of injections to Audit, though called for. As such, following of due process, regarding verification and analysis of needs of the institutions, before issue of injections to them, by JMHIDPCL, could not be ensured by Audit. However, scrutiny of the cash book revealed that JMHIDPCL had also received cheques from individuals, apart from health institutions, for supply of these Injections, and 63 such cheques, amounting to ₹ 39.66 lakh, including 58 cheques, given by individuals, worth ₹ 29.14 lakh, had been dishonored by the assessing banks.

Thus, misutilisation of Injections by JMHIDPCL, violating the instruction of JRHMS, cannot be ruled out. Further, there was loss of ₹ 39.66 lakh, on account of the dishonored cheques.

On further enquiry, JMHIDPCL stated (March 2024), that an amount of ₹ 30.93 lakh was still to be recovered and legal notices have been issued to the individuals/institutions. The Department did not furnish replies to the audit observation.

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<sup>174</sup> Actemera Tocilizumab 80 mg, Actemera Tocilizumab 400 mg, Remdesivir and Ambisome 50.

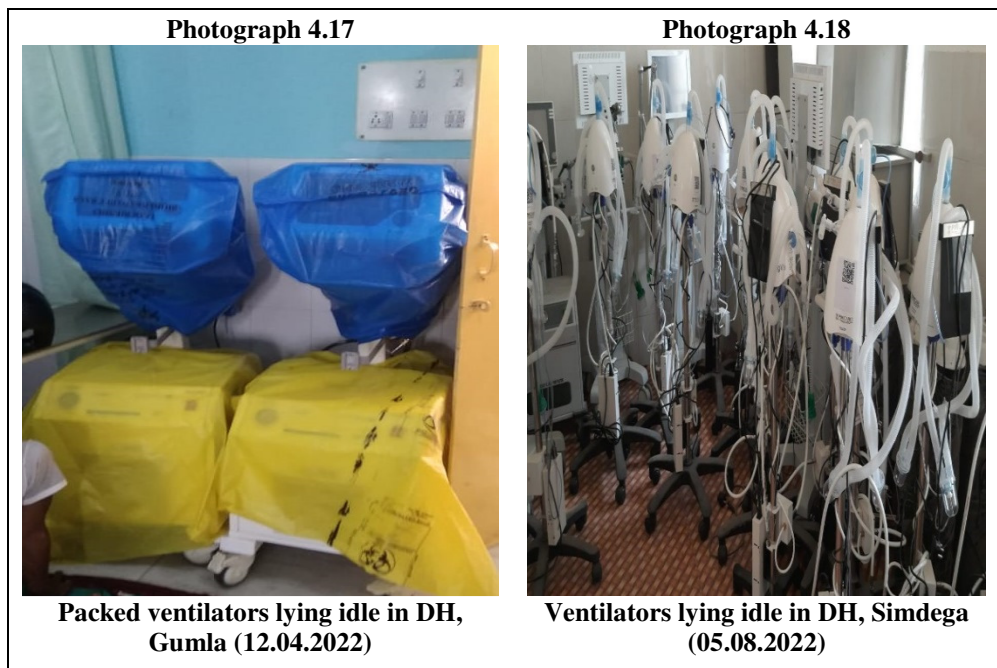


#### 4.9 Utilisation of Ventilators

In Central Warehouse, Namkum, 1,697 ventilators had been received (between May 2020 and July 2021), out of which 1,678 had been distributed (between June 2020 and February 2022) to the healthcare facilities and 19 ventilators were lying in the stores, as of February 2022.

Audit observed that the DWHs of the test-checked districts had received (between July 2020 and September 2021) 389 ventilators and issued (July 2020 and October 2021) 357 ventilators, to the healthcare facilities<sup>175</sup>. Audit further observed, in the joint physical verification, conducted between April and August 2022, that, in the five test-checked DHs, 337 ventilators had been received, but only 113 (34 *per cent*) were attached with the beds, while the remaining 224 ventilators were lying in the stores of DHs, as shown in **photographs 4.17** and **4.18**.

During joint physical verification (August 2022), it was observed in DH, Simdega, that 37 ventilators, attached with beds, had not been put to use, due to non-availability of specialist, anesthetist *etc.* Further, trained staff was not available in three<sup>176</sup> out of the five test-checked DHs. The Department stated (March 2023) that the matter will be examined.



#### 4.10 Non-realisation of rent for ventilators from private hospitals

Keeping in view the surge in the number of COVID-19 infections and the increased demand of ventilators, the Mission Director, NHM, Jharkhand, decided (April 2021) to provide ventilators, on rental basis, to all private hospitals having designated COVID-19 ICU facility. Security deposit of

<sup>175</sup> DHs and CHCs.

<sup>176</sup> Gumla, Saraikela-Kharsawan and Simdega.

₹ one lakh per ventilator was to be deposited by the private hospital, in the form of Demand Draft. Per day rent for the ventilators, to be paid by the private hospitals, were fixed as per the Categories<sup>177</sup> of the districts in which the hospitals were situated.

Audit observed that 69 ventilators had been rented (between August 2020 and May 2021) to 18 private hospitals, by JRHMS and CS-cum-CMO, Dhanbad. The ventilators were in the possession of these private hospitals, as of March 2022. Audit further noticed that, neither had the security deposit of ₹ 69 lakh been realised from the private hospitals, prior to renting of the ventilators, nor had rent (which worked out to ₹ 3.16 crore), been realised from them, till March 2022 (*Appendix 4.12*).

Thus, JRHMS and CS-cum-CMO, Dhanbad, failed to realise security deposit of ₹ 69 lakh and rent of at least ₹ 3.16 crore, from private hospitals, against rented ventilators. The Department stated (March 2023) that the matter will be examined and necessary action will be taken for realization of the money due from the hospitals.

#### **4.11 Supply of lower potency drugs**

The Mission Director, NHM, Jharkhand, requested (11 April 2021) JMHDPCCL, to procure Methyl Prednisolone 60 mg (6,000 vials) Injection, for treatment of COVID-19 patients. JMHDPCCL, accordingly, invited (21 April 2021) Expression of Interest (EOI) for procurement. Against the EoI, two bidders quoted their rates. The Bid Process Management Committee (BPMC) approved (April 2021) the lowest rate of ₹ 49.28 per injection, including tax, offered by M/s. Pushkar Pharma, Himachal Pradesh.

Accordingly, JMHDPCCL issued (24 April 2021) Purchase Order (PO) for supply of 6,000 Methyl Prednisolone 60 mg injection. However, immediately after issue of the PO, the supplier informed (26 April 2021) JMHDPCCL that he had quoted the rate for Injection Methyl Prednisolone 40 mg, instead of Injection Methyl Prednisolone 60 mg, and requested revision of the PO. JMHDPCCL issued (28 April 2021) revised PO, for supply of 6,000 Methyl Prednisolone 40 mg injection, at the same rate.

Additionally, JMHDPCCL also issued another PO (05 May 2021) for supply of 84,000 Injection Methyl Prednisolone 40 mg, to the same firm. Thus, POs were issued for a total supply of 90,000 injections. Against this, the supplier supplied (between 19 May 2021 and 11 June 2021) 89,000 injections, for ₹ 43.85 lakh. This amount was paid to the supplier on 14 February 2022.

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<sup>177</sup> Per day per ventilator rent (Category A : ₹ 1,250, Category B : ₹ 1,000 , Category C : ₹ 750)



Allowing the supplier to supply injection of lower strength (40 mg) than indented (60 mg) and that too at the rate quoted for 60 mg, constituted an undue favour extended to the contractor. The Department stated (March 2023) that the matter will be examined.

#### 4.12 Purchase of Pulse Oximeter without proper assessment

The CS-cum-CMO, Saraikela Kharsawan, demanded (18 May 2021) 50 Pulse Oximeters, from the Central Warehouse, Ranchi, against which 85 Pulse Oximeters were supplied on 19 May 2021.

However, the CS-cum-CMO procured (20 May 2021) 650 Pulse Oximeters, valued at ₹ 10.92 lakh, from a local supplier, against a purchase order issued on 19 May 2021. Although 1,631 Pulse Oximeters were available (19 May 2021) at the Central Warehouse, Namkum, CS-cum-CMO did not place demand for the same, before procurement. Further, the Central Warehouse again supplied (June and July 2021) 379 Pulse Oximeters, to the CS-cum-CMO. It was further seen that the CS-cum-CMO had distributed (20 May to 08 July 2021) only 246 Pulse Oximeters and the remaining 905 Pulse Oximeters, including 37 available on 20 May 2021, were lying unutilised in the stores, as found during joint physical verification (6 April 2022).

Thus, the CS-cum-CMO purchased 650 Pulse Oximeters, valued at ₹ 10.92 lakh, without immediate requirement. The Department while confirming the facts stated (March 2023) that the Oximeters will be utilised.

#### 4.13 Availability of Essential Drugs in District Joint AYUSH dispensaries

The Department of AYUSH (Drug Control Cell), Ministry of Health and Family Welfare, GoI, notified (March 2013) the Essential Drugs List (EDL) for AYUSH, with 277 Ayurvedic, 257 Homeopathic and 288 Unani drugs.

Audit scrutiny of records of the six test-checked District Joint AYUSH Dispensaries, for the period from FY 2019-20 to FY 2021-22, revealed that the availability of drugs was very low, in comparison to the drugs included in the EDL as detailed in **Table 4.23**.

**Table 4.23: Availability of essential drugs in the test-checked District Joint AYUSH Dispensaries**

District	Stream	Number of drugs in the EDL	2019-20	2020-21	2021-22
Dhanbad	Ayurveda	277	Drugs not available	60	30
	Homeopathy	257		53	53
	Unani	288		05	00

District	Stream	Number of drugs in the EDL	2019-20	2020-21	2021-22
Dumka	Ayurveda	277	Drugs not available during 2019-20 to 2021-22		
	Homeopathy	257			
	Unani	288			
Garhwa	Ayurveda	277	49	11	00
	Homeopathy	257	00	53	00
	Unani	288	00	05	00
Gumla	Ayurveda	277	33	30	37
	Homeopathy	257	Drugs not available	53	NA
	Unani	288		00	13
Saraikela Kharsawan	Ayurveda	277	30	16	15
	Homeopathy	257	19	00	45
	Unani	288	0	0	0
Simdega	Ayurveda	277	33	10	00
	Homeopathy	257	Drugs not available		
	Unani	288			

**Colour code:** Red = Very Poor (availability < 50%)

It can be seen from **Table 4.23** that three out of the six dispensaries did not have Ayurvedic drugs during FY 2019-20. No drugs were available in Dumka during FY 2019-20 to 2021-22. Similarly, Homeopathic and Unani drugs were not available in Simdega. Homeopathic medicines were not available in Garhwa during FY 2019-20 and 2021-22 and Unani drugs were not available in Saraikela Kharsawan during FY 2019-20 and 2021-22.

Shortage of drugs in the District Joint AYUSH dispensaries defeated the objective of promoting AYUSH as an alternative system of medicine in the State. The Department accepted the facts and stated (March 2023) that remedial action will be taken.

#### 4.14 Availability of essential drugs, equipment and consumables in Health and Wellness Centres

As per the Operational Guidelines of Health and Wellness Centres (HWCs), 91 essential drugs, 66 items of equipment and 37 types of consumables, are required to be available in each HWC.

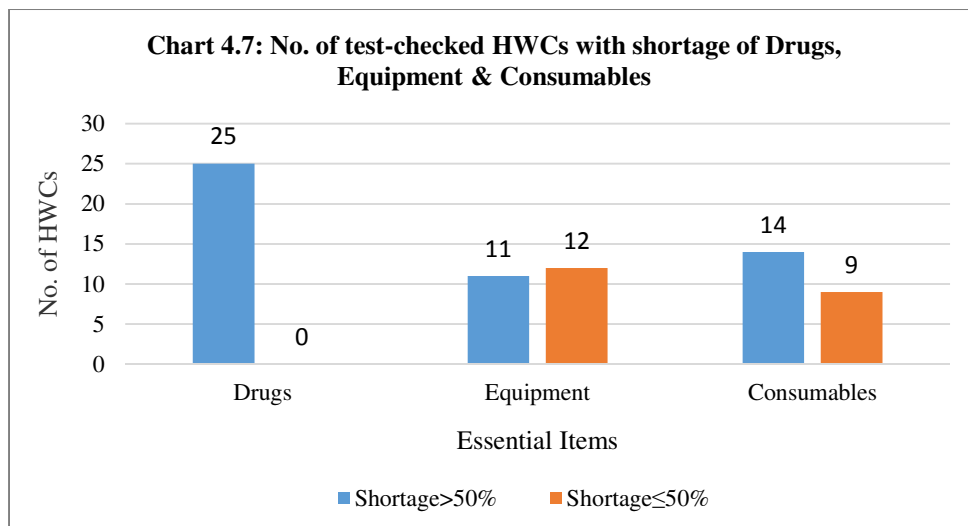
Audit noticed shortages in the availability of required drugs, equipment and consumables, as shown in **Table 4.24** and **Chart 4.7**.

**Table 4.24: Status of availability of essential drugs, equipment and consumables, in the test-checked HWCs as of March 2022**

Districts	HWCs	Availability of Drugs (91)	Availability of Equipment (66)	Availability of consumables (37)
Dhanbad	Kharkabad, Govindpur	33	48	16
	Barari, Jharia	30	49	22
	Mauraidih, Govindpur	31	47	09
Dumka	Simluti, Shikaripara	31	30	12
	Mokhapar, Saraiyahat	16	36	24
	Dudhani Jarmundi	25	23	23
	Sahara, Jarmundi	24	34	22
	Pattabari, Shikaripara	31	36	16
	Noniya, Saraiyahat	25	08	07
Garhwa	Sarkoni, Manjhiaon	23	49	08
	Balyari, Manjhiaon	42	48	24
	Bijdi, Manjhiaon	25	21	17
	Kadhwan, Bhawnathpur	25	NA	NA
Gumla	Pabeya, Bharno	44	43	28
	Domba, Bharno	43	09	17
	Sundarpur, Palkot	15	23	21
	Pithartoli, Palkot	14	20	16
	Konkel, Raidih	24	15	16
Saraikela Kharsawan	Heben, Nimdih	15	37	09
	Haitirul, Nimdih	20	44	09
	Urmal, Chandil	17	46	17
Simdega	Lamboi, Jaldega	25	31	23
	Konmerla, Jaldega	21	18	17
	Kundurmunda, Bolba	24	18	20
	Letabera, Bolba	34	NA	NA

(Source: Information furnished by the test-checked HWCs)

**Colour code:** Red = Extremely Poor (Shortfall > 60%), Yellow = Very poor (60% ≤ Shortfall ≤ 40%), Green = poor (Shortfall < 40%)

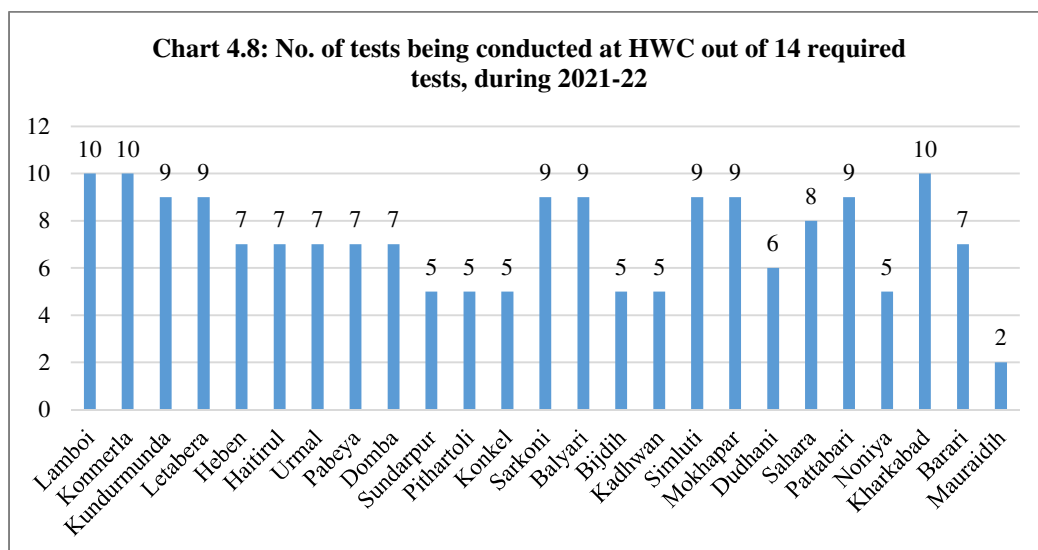


It can be seen from **Table 4.24** that, as compared to the requirements, only 14 to 44 essential drugs (15 to 48 *per cent*), 8 to 49 equipment (12 to 74 *per cent*) and 7 to 28 types of consumables (19 to 76 *per cent*), were available in the 25 test-checked HWCs, which would have restricted the functioning of the HWCs. The Department, while confirming the facts, stated (March 2023) that action is being taken for bringing about improvement in the functioning of the HWCs as per norms.

#### 4.15 Diagnostic services in Health and Wellness Centres

As per the Operational Guidelines of HWCs, each HWC is expected to have the capacity to deliver a minimum range of basic diagnostics and screening capabilities, for conditions that are mandated to be screened/ treated at this level. 14 Diagnostic services are required to be delivered at each HWC.

Audit observed that only two to 10 diagnostic services were available, during FY 2021-22, in the test-checked HWCs as shown in **Chart 4.8**.



The Department, while confirming the facts, stated (March 2023) that action is being taken for bringing about improvement in the functioning of HWCs as per norms.

***Recommendation: State Government may strengthen the HWCs, by ensuring availability of equipment, diagnostic services and essential drugs, to provide the mandated health care services in rural areas.***

