Chapter 8 Building Infrastructure

To deliver quality health services in the public health facilities, adequate and properly maintained building infrastructure is of critical importance. Examination of records in the Performance Audit disclosed inadequacies and deficiencies in the availability and construction of hospital building infrastructure, as discussed in the succeeding paragraphs.

8.1 Grading of District Hospitals

As per IPHS, the size of a DH is determined by its bed requirement and the bed requirement of a hospital is assessed on the basis of the population of the district. Based on the assumptions of the annual rate of admission as 1 per 50 population and average length of stay in a hospital as 5 days, the number of beds required in test-checked DHs are shown in **Table 8.1**.

Table 8.1: Details of sanctioned and required bed in DHs

Name of District	2014-15				2018-19			
	Projected population in 2014-15	No. of beds sanctioned	No. of beds required*	Shortage of beds (*per cent*)	Projected population in 2018-19	No. of beds sanctioned	No. of beds required*	Shortage of beds (*per cent*)
Deoghar	16,20,738	100	444	344 (77)	18,60,709	100	510	410 (80)
East Singhbhum	23,99,225	100	657	557 (85)	25,91,019	100	710	610 (86)
Hazaribag	18,71,709	200	513	313 (61)	21,25,944	250	582	332 (57)
Palamu	20,90,701	100	573	473(83)	23,75,840	200	651	451 (69)
Ramgarh	9,86,952	100	270	170 (63)	10,53,313	100	289	189 (65)
Ranchi	31,26,760	100	857	757 (88)	35,20,419	200	964	764 (79)
Total		**700**	3,314	2,614 (79)		**950**	3,706	2,756 (83)
Note: [*(Population /50) X 5/365]								

(Source: Census 2011 and test-checked hospitals)

It can be seen from **Table 8.1** that:

- Shortage of required beds in the test-checked DHs ranged between 61 and 88 *per cent* and 57 and 86 *per cent* respectively during 2014-15 and 2018-19.

- There was shortage of 2,614 beds in the test-checked DHs as of March 2015. However, only 250 additional beds were added during 2014-19.

- To cope up with the increasing bed requirement, GoJ planned to upgrade DH, Ranchi to a 500 bedded hospital from the existing 100 bedded hospital and sanctioned (August 2007) construction of a new hospital building. However, due to non-construction of all the blocks of the building, GoJ notified (May 2017) the DH to be operated as a 200 bedded Mother

and Child Health (MCH) Centre in the first phase in the incomplete under construction building. DH, Ranchi was yet to be upgraded to the planned 500 bedded hospital (March 2020).

Thus, the Department did not create adequate number of beds in DHs commensurate with the increase in population to provide access to quality secondary health care services.

The Department did not furnish replies to the audit observation.

8.2 Creation of infrastructure

Jharkhand State Building Construction Corporation Limited (JSBCCL), headed by the Principal Secretary, Building Construction Department as the Chairman, is the designated body for construction of hospital buildings in the State. The Project Implementation Units (PIUs) headed by the Divisional Managers at the district level implement the projects.

8.2.1 Physical and financial achievement of works

During 2014-19, 66 works for construction/up-gradation of hospital buildings including district hospital buildings, 10 bedded burn units, blood bank buildings and district warehouses in the campus of Sadar hospitals were sanctioned at a cost of ₹ 376.13 crore. Besides, six works, sanctioned prior to 2014-15 at a cost of ₹ 175.28 crore were also in progress as of March 2014. Against these 72 works, 58 works (81 *per cent*) with sanctioned cost of ₹ 130.16 crore were completed with expenditure of ₹ 96.03 crore, eight works with sanctioned cost of ₹ 410.40 crore were in progress as of March 2020 after expenditure of ₹ 185.72 crore and six works with sanctioned cost of ₹ 10.85 crore were dropped by the Department mainly due to non-availability of land required for construction. Year-wise progress of works is given in **Table 8.2**.

Table 8.2: Details of projects undertaken during 2014-19

(₹ in crore)

Year	Number of projects	Sanctioned cost	Completed projects		Incomplete projects		Dropped projects
			Number	Exp	Number	Exp	
Prior to 2014-15	6	175.28	5	19.67	1	109.63	Nil
2014-15	35	62.11	31	40.10	Nil		4
2015-16	22	41.11	18	15.65	2	1.04	2
2016-17	2	4.95	2	4.88	Nil	Nil	Nil
2017-18	4	192.44	2	15.73	2	58.69	Nil
2018-19	3	75.52	Nil	Nil	3	16.36	Nil
Total	**72**	**551.41**	**58**	**96.03**	**8**	**185.72**	**6**

(Source: Information furnished by JSBCCL)

Audit further selected 13 works with sanctioned cost of ₹ 257.26 crore (**detailed in Appendix 8.1**) in the six test-checked districts for detailed scrutiny. These works were taken up during 2013-19 and were to be

completed between February 2015 and February 2020. Of these, eight works sanctioned at a cost of ₹ 19.03 crore were completed after incurring an expenditure of ₹ 13.89 crore while three works sanctioned at a cost of ₹ 235.53 crore were in progress with physical achievement ranging between 29 and 68 *per cent* and expenditure of ₹ 70.65 crore. Two works viz., ten bedded burn units at DHs, Hazaribag and Palamu with sanctioned cost of ₹ 2.69 crore were dropped by the Department mainly due to non-availability of land.

8.3 Irregularities noticed in test-checked works

8.3.1 Delay in construction of hospital building

Construction of a 500 bedded hospital building at Sadar Hospital, Ranchi was administratively approved (August 2007) for ₹ 131.14 crore by the Health, Medical Education and Family Welfare Department, GoJ. The Department signed (October 2007) an MoU with M/s National Building Construction Corporation Limited (NBCC) for completion of the work within three years which was later extended upto December 2012.

Meanwhile, GoJ decided (July 2012) to run the hospital (DH, Ranchi) on Public Private Partnership (PPP) mode and nominated (July 2012) International Finance Corporation (IFC) as Transaction Advisor for preparing Bid document and concession agreement. The Department also instructed (May 2013) NBCC to hand over the inventory of the work done so as the building may be transferred to the selected operator on "as is where is" basis to complete the remaining work and to make it operational. NBCC was paid ₹ 137.38 crore for the work done.

The Bid document and the concession agreement prepared by the transaction advisor was approved (January 2014) by the State Government and the tender was floated (March 2014) in which three bidders participated. In the technical evaluation, two bidders were technically qualified but the tender was cancelled (May 2014) on the grounds of getting wider competitive bidding through re-tender. However, in the re-tender, no bidder participated. Subsequently, the State Government resorted to negotiation with reputed hospital groups to run the hospital on PPP mode but the effort also did not fructify.

Later on, GoJ decided (June 2016) to run the hospital by the Department itself instead of running it on PPP mode. A revised administrative approval for ₹ 307.93 crore for the project was accorded (August 2017) by the Department on the basis of technical sanction granted (March 2017) by the General Manager (Project), Jharkhand State Building Construction Corporation Limited (JSBCCL), Ranchi. As per the revised estimate, cost of

the remaining works was ₹ 170.55 crore[90] including cost due to variation in rate (₹ 62.71 crore); variation in quantity (₹ 67.60 crore) and for addition of new items (₹ 40.24 crore).

The remaining work was awarded (November 2017) to a contractor at ₹ 179.21 crore with scheduled date of completion by February 2019. The work was under progress with physical progress at 40 *per cent* and financial progress at ₹ 52.63 crore as of June 2020.

Thus, midway stoppage (July 2013) of the incomplete work and failure in attracting a private partner to operate the hospital on PPP mode after completing the remaining works led to the 500 bedded hospital remaining non-functional even after more than 12 years of commencement of construction.

8.3.2 Non/ short realisation of liquidated damages

As per the provisions of contract in the Standard Bidding Document, the contractor shall pay liquidated damages to the employer (at the rate of 1/2000th of the Initial Contract Price rounded to nearest thousand per day) for each day that the completion date is later than the intended date of completion. The total amount of liquidated damages shall not exceed 10 *per cent* of the Initial Contract Price. The employer shall deduct liquidated damages from payments due to the contractor.

As discussed above, the remaining work of the 500 bedded "Sadar hospital (with wards) at Ranchi" was awarded (November 2017) at ₹ 179.21 crore for completion of the work by February 2019. Though the physical progress of the work was only 40 *per cent* as of June 2020, JSBCCL did neither realise liquidated damages of ₹ 17.90 crore (being maximum of 10 *per cent* of the contract price) for such delay from the contractor's payments (₹ 52.63 crore) nor extend the intended date of completion on request of the contractor that was recommended (August 2019 and June 2020) for extension up to December 2019 and December 2020 respectively by the Manager-cum-Executive Engineer, PIU, Ranchi.

8.3.3 Short realisation of mobilisation advance

As per the provisions of the contract, the employer shall make advance payment of 10 *per cent* of the contract price as mobilisation advance to the contractor, on submission of unconditional bank guarantees, to be drawn before the end of 20 *per cent* of the contract period. The mobilisation advance shall be repaid at the rate of 20 *per cent* of the amount of the interim payment certificates certified by the engineer. Deductions shall commence in the next interim payment certificate following that in which the total of

[90] A) Balance work: ₹ 163.07 crore; B) Labour Cess: ₹ 1.63 crore; C) Electrical connection: ₹ 5.85 crore.

all such payment to the contractor has reached not less than 20 *per cent* of the contract price or six months from the date of payment of first instalment of advance, whichever period concludes earlier provided that the advance shall be completely repaid prior to the expiry of the original time for completion.

Audit observed that mobilisation advance of ₹ 17.90 crore was granted (December 2017) to the contractor against which only ₹ 2.65 crore was recovered up to the original intended date of completion (February 2019) from bills of ₹ 19.72 crore paid till March 2019. Recovery of ₹ 6.58 crore was further made from subsequent bills leaving a balance of ₹ 8.67 crore as of June 2020.

Thus, in contravention to the provisions of the SBD, complete liquidation of the mobilisation advance was not done till original intended date of completion and even later on which resulted in undue financial aid to the contractor.

The Department did not furnish replies to the audit observation.

8.3.4 Incomplete building of DH, Ramgarh

In Ramgarh, a new 100 bedded hospital building was sanctioned (June 2008) by the Department for ₹ 4.89 crore. The work was departmentally executed by the Executive Engineer, Rural Development (Rural Works) Division, Ramgarh. However, construction work was stalled (June 2013) after incurring expenditure of ₹ 3 crore out of allotted fund of ₹ 3.50 crore due to corruption charges and action contemplated (August 2015) by the Anti-Corruption Bureau, Jharkhand, Ranchi against the executing agency.

Further, Detailed Project Report (DPR) of balance works of building including infrastructural facilities for ₹ 12.66 crore[91] was technically approved (January 2020) by JSBCCL and submitted (January 2020) to the Department for revised Administrative Approval which was awaited (June 2020). As such, the remaining work could not be resumed and DH, Ramgarh was functioning in the building of MCH centre since April 2016.

The photograph of the incomplete 100 bedded hospital building is given below:

[91] Balance civil work: ₹ 3.52 crore; Plumbing & Sanitary work: ₹ 0.39 crore; Internal Electric work: ₹ 1.70 crore; Added New items: road parking and parking shed: ₹ 0.29 crore; rain water harvesting: ₹ 0.03 crore; underground water tank and pump room: ₹ 0.13 crore; Borewell: ₹ 0.15 crore; Entrance gate: ₹ 0.01 crore and other miscellaneous works: ₹ 1.74 crore including already executed work: ₹ 3.95 crore

Photograph showing incomplete 100 bedded District Hospital building at Ramgarh

8.3.5 Non-operational Burn Units

Construction of 10 bedded burn units with furniture and equipment in all the 24 DHs (including for DH, Dhanbad under-construction) was administratively and technically approved (August 2014) at a cost of ₹ 1.35 crore each. Later on, four units were dropped for want of required land in two districts (Godda and Palamu) and in the departmental meeting (January 2016) without assigning any reason in two districts (Giridih and Hazaribag). Construction of the remaining 20 units, including supply and installation of equipment, were taken up during 2014-16 at an agreed value of ₹ 23.55 crore[92] for completion between September 2015 and January 2017.

Audit observed (June 2020) that the Principal Secretary of the Department instructed (March 2016) the Directorate to direct the contractors to complete the civil works only and equipment component of the agreements would be procured by JMHIDPCL as the equipment were of special nature for which specifications were to be carefully drawn keeping in view the quality standards. Consequently, buildings (civil works only) were completed at ₹ 12.40 crore and handed over (between September 2015 and January 2017) to the DHs. However, JMHIDPCL was not provided funds for procurement of equipment as of June 2020. In the absence of equipment, burn units of the four test-checked districts could not be made functional as discussed in ***Paragraph 4.6* of *Chapter 4***.

The Department did not furnish replies to the audit observations.

To sum up, *the objective of providing access to health facilities at DHs remained unachieved due to non-assessment of requirement of number of beds commensurate with the increase in population of the district. Delay in completion of building works and failure of the Department to operationalise the completed buildings also aggravated the problem of inadequate access to quality health care.*

[92] Excluding agreement values for five units (Jamtara, Khunti, Sahibganj, Simdega and West Singhbhum) which was not provided to audit.

Chapter 9 Recommendations

District hospitals being the pivotal point of the public health system in Jharkhand, influence the performance of the entire healthcare system. Despite a considerable increase in public health expenditure in the State during 2014-19, the test-checked district hospitals (DHs) did not fare well on the outcome indicators relating to efficiency, service quality and clinical care capabilities.

In order to provide the right care at the right time in district hospitals, the State Government may consider implementing the following recommendations:

Policy framework for healthcare services

- The State Government should ensure that the existing standards and norms for provisioning of services and resources for the district hospitals are strictly followed. Punitive action should be taken against officials for intentional violation of norms or negligence in services.

Out-Patient services

- Consultation time should be reviewed and sufficient doctors may be deployed in identified OPDs with low consultation time to ensure satisfaction of patients with the consultation process.
- The inequities in the number of registration counters *vis-à-vis* the rising patient demand should be addressed to reduce waiting time for patients and seating/ toilet facilities should be improved.
- The grievance redressal mechanism should be revamped and activated in all DHs to improve their performance by pre-defined interventions to address the issues related to patient satisfaction.

Diagnostic services

- The availability of essential radiological and pathological equipment, all types of pathological investigations and required manpower as per existing standards and norms should be ensured at DHs.

In-Patient services

- Government should proactively synergise availability of specialised in-patient services along with the essential drugs, equipment and human resources in DHs to ensure access to quality medical care.

- All essential IPD services including ICU and Burn Ward facilities should be ensured at all DHs with appropriate resources so that critical patients may get immediate treatment.
- Quality standard should be ensured in respect of diets provided to in-patients.

Maternity services

- Prescribed intra-partum and post-partum care should be ensured towards minimising adverse pregnancy outcomes.
- SNCUs should be made functional in all DHs.
- Payments of cash assistance under JSY should be ensured prior to discharge of beneficiary from the hospital.

Infection control

- Detailed SOPs for infection control and cleaning activities should be framed by all DHs and their implementation and monitoring should be ensured by District Infection Control Committees.
- Prescribed disinfection and sterilisation of equipment should be ensured with proper documentation of the process.
- Disposal of liquid chemical waste should be ensured as per the provisions of Bio-Medical Waste Management Rules 2016.

Drug management

- The Department should set clear timelines for procurement and testing of essential drugs and ensure adherence to these timelines, failing which responsibility should be fixed and action taken against erring officials.
- Storage of drugs under proper conditions as prescribed in the Drugs and Cosmetics Rules, 1945 to maintain their efficacy should be ensured.

Building infrastructure

- The Department should plan to upgrade the bed capacity of DHs, commensurate with the increase of population in the districts as per IPHS norms.

- The Department should review all incomplete hospital buildings and address the bottlenecks that are causing delays. Idle buildings should be operationalised by deploying adequate equipment and manpower.
- Responsibility should be fixed for negligence/lapses leading to inordinate delays in construction of hospital buildings and equipment lying idle.

Ranchi
The 10 December 2021

(INDU AGRAWAL)
Principal Accountant General (Audit)
Jharkhand

Countersigned

New Delhi
The 15 December 2021

(GIRISH CHANDRA MURMU)
Comptroller and Auditor General of India