

CHAPTER 5

Healthcare Infrastructure

Chapter 5: Healthcare Infrastructure

Audit noticed that Sub-Centres (SCs), Primary Health Centres (PHCs) and Rural Hospitals (RHs) in the State were inadequate. There was inter-district disparity in the number of SCs, PHCs and RHs established in the State.

Works taken up under Master Plan based on Census 2001 prepared in 2013 were incomplete. Out of 1,252 Health Care Institutions (HCIs) taken up for construction, 882 HCIs (70 per cent) were not completed. Out of 62 HCIs taken up for upgradation, 56 HCIs (90 per cent) were incomplete. Super Speciality Hospital (Phase II), Amravati constructed at the cost of ₹ 31.91 crore in June 2015 was partially functioning.

Audit noticed that in District Hospitals (DHs), the number of beds were not available in accordance with Indian Public Health Standards and there was a shortage of 7,833 beds. Further, in DHs, out of 6,062 sanctioned beds, 5,681 beds were available.

5.1 Introduction

PHD manages the primary and secondary level health care facilities, whereas most of the tertiary care facilities are managed by MEDD.

Health infrastructure is an important indicator for understanding the healthcare policy and welfare mechanism in a State. It signifies the investment priority regarding the creation of healthcare facilities. Infrastructure has been described as the basic support for the delivery of public health activities. To deliver quality health services in public health facilities, adequate and properly maintained building infrastructure is of critical importance.

Audit noticed inadequacies in the availability and management of infrastructure, which are discussed in succeeding paragraphs.

5.2 Healthcare Infrastructure

Indian Public Health Standards require that one Sub-Centre (SC)⁵⁴ should be established for every 5,000 population in plain areas and for every 3,000 population in hilly/tribal areas. A Primary Health Centre (PHC)⁵⁵ covers a population of 20,000 in hilly, tribal, or difficult areas and 30,000 population in plain areas, whereas each Community Health Centre (CHC) generally includes four PHCs and caters to approximately 80,000 population in hilly/tribal areas and 1,20,000 population in plain areas. Sub-Divisional hospitals are below the district and above the block level (CHC) and act as first referral units for the taluka/block population and caters to about five to six lakh people.

⁵⁴ The SC is the first point of contact between the community and the healthcare system.

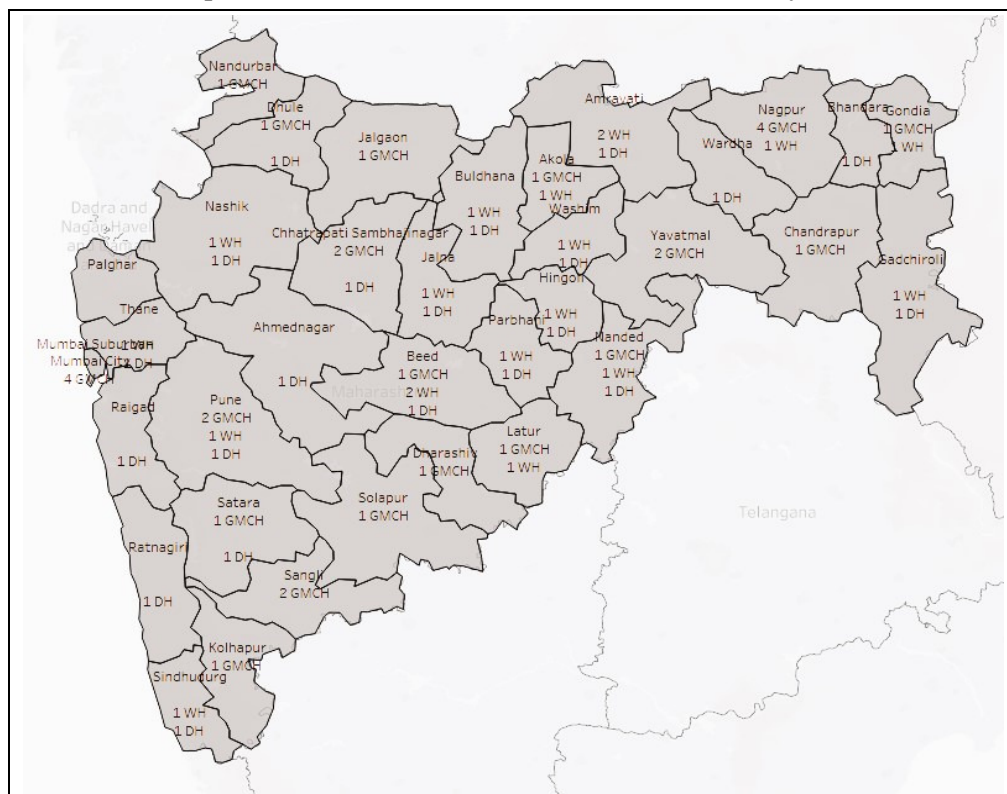
⁵⁵ PHC with four to six beds is a referral unit for six Sub-Centres.

5.2.1 Availability of Healthcare Infrastructure

▪ Hospitals at District level

In Maharashtra there are 36 districts. Out of 36 districts, two districts namely Mumbai City and Mumbai Suburban are urban districts and health activities of these two districts are mainly managed by Brihanmumbai Municipal Corporation (BMC). In addition, Mumbai City also has four hospitals⁵⁶ attached to Grant Medical College, Mumbai under the jurisdiction of MEDD. District level hospital was not available in Palghar district. In the remaining 33 districts, the healthcare facilities at the district level were provided by the District Hospitals, Women Hospitals and the Hospitals attached to the medical colleges. As of May 2023, there were 21 District Hospitals one each in 21 districts. In addition to District Hospitals in these 21 districts, there were also 15 Women Hospitals⁵⁷ and eight Hospitals attached to the medical colleges. In the remaining 12 districts, the healthcare was being provided by four Women Hospitals and 17 Hospitals attached to the medical colleges. The district level HCIs in Maharashtra as of May 2023 is shown in **Map 5.1**.

Map 5.1: District Level HCIs in Maharashtra as of May 2023



Source: Public Health Department, GoM, 'Comprehensive Note for 1st Session of Year 2023 (February 2023) and Information furnished by Medical Education and Drugs Department

⁵⁶ Cama and Alless Hospital, Mumbai; G. T. Hospital, Mumbai; Sir J. J. Group of Hospitals, Mumbai and St. George's Hospital, Mumbai.
⁵⁷ Excluding Women Hospital, Dhule, which is under construction.

▪ **Hospitals at Sub-Division level**

As of February 2023, there were 95 Sub-Division level hospitals in the State, of which, 63 were 50 bedded and 32 were 100 bedded hospitals.

▪ **Shortfalls in Sub-Centres, Primary Health Centres and Rural Hospitals**

IPHS provided for the establishment of SCs, PHCs, and Rural Hospitals (RHs)⁵⁸ based on the population. As per Rural Health Statistics for 2021-22 issued by the Ministry of Health and Family Welfare, GoI, the requirement of SCs, PHCs, and RHs as per IPHS based on the projected population as of 1st July 2022 and the HCIs existing as per the comprehensive note for first session of year 2023 prepared by PHD, GoM is shown in **Table 5.1**.

Table 5.1: Availability of healthcare infrastructure against the requirement

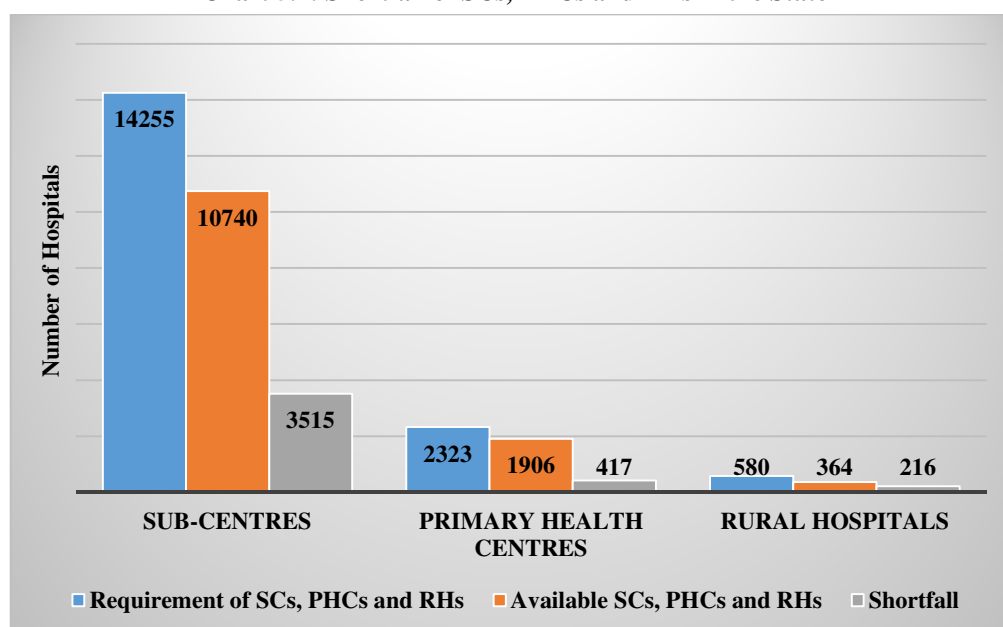
Category of HCIs	Requirement as per projected population as on 1 st July 2022 [#]	HCIs existing HCIs as of February 2023 ^{\$\$}	Shortfall	Percentage shortfall
Sub-Centres	14,255	10,740	3,515	25
Primary Health Centres	2,323	1,906	417	18
Rural Hospitals	580	364	216	37

Source: [#]Rural Health Statistics for 2021-22 issued by Government of India

^{\$\$} Public Health Department, GoM, 'Comprehensive Note for 1st Session of Year 2023 (February 2023)'

As seen from **Table 5.1**, there was a shortfall of 3,515 (25 per cent), 417 (18 per cent) and 216 (37 per cent) in the number of SCs, PHCs and RHs, respectively in the State as shown in **Chart 5.1**.

Chart 5.1: Shortfall of SCs, PHCs and RHs in the State



Source: Rural Health Statistics for 2021-22 issued by Government of India and Public Health Department, GoM, 'Comprehensive Note for 1st Session of Year 2023 (February 2023)'

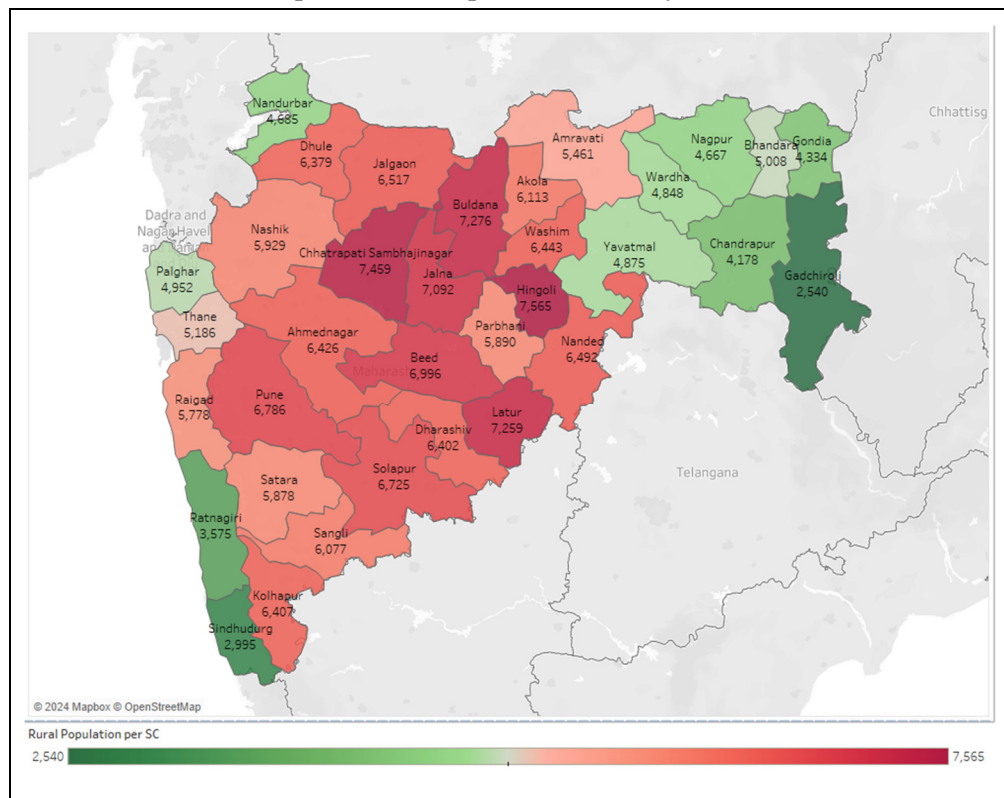
⁵⁸ In Maharashtra, Community Health Care Centre is known as Rural Hospital.

▪ **Geographical distribution of Sub-Centres, Primary Health Centres and Rural Hospitals**

The geographical distribution SCs, PHCs, and RHs in the State are discussed below.

1) The rural population served by SCs in the State as of February 2023 is shown in **Map 5.2**.

Map 5.2: Rural Population served by one SC

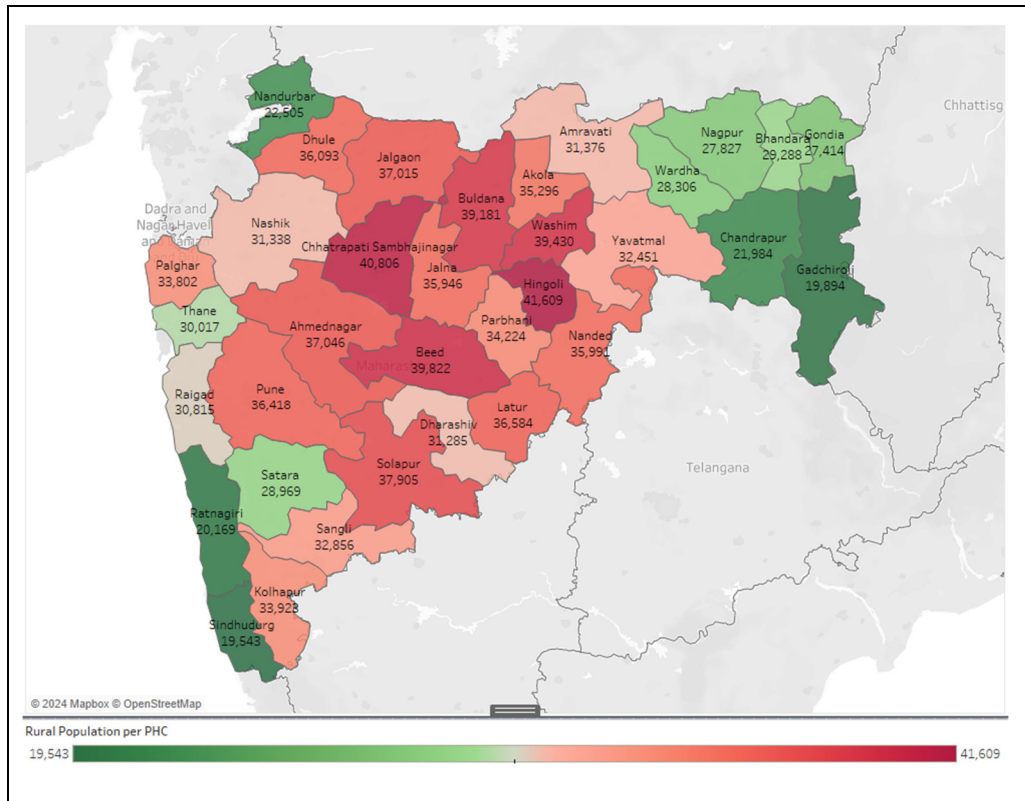


Source: Population Census 2011 and Public Health Department, GoM, ‘Comprehensive Note for 1st Session of Year 2023 (February 2023)

As seen from **Map 5.2**, in 10 out of 34 districts in the State (excluding Mumbai City and Mumbai Suburban district) one SC catered to population (as per Census 2011) upto 5,000 and ranged between 2,540 (Gadchiroli district) and 4,952 (Palghar district). In the remaining 24 districts, one SC catered to population of more than 5,000 and ranged between 5,008 (Bhandara district) and 7,565 (Hingoli district).

2) The rural population served by PHCs in the State as of February 2023 is shown in **Map 5.3**.

Map 5.3: Rural Population served by one PHC

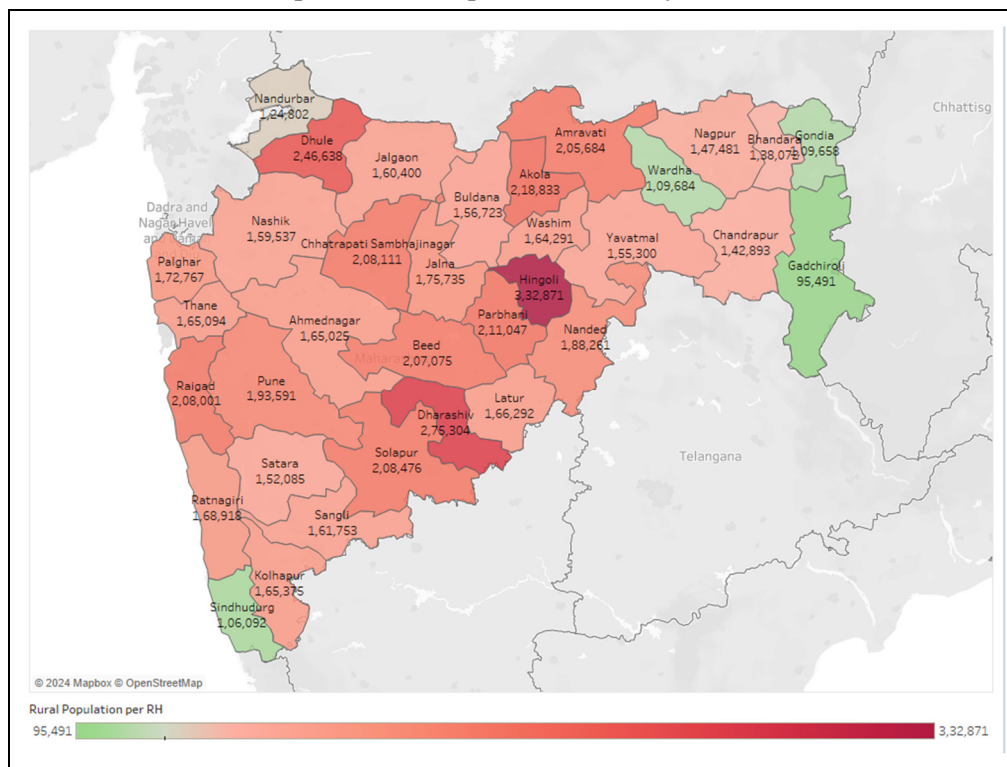


Source: Population Census 2011 and Public Health Department, GoM, ‘Comprehensive Note for 1st Session of Year 2023 (February 2023)

As seen from **Map 5.3**, in 10 out of 34 districts in the State (excluding Mumbai city and Mumbai suburban district), one PHC catered to a population (as per Census 2011) upto 30,000 and ranged between 19,543 (Sindhudurg district) and 29,288 (Bhandara district). In the remaining 24 districts, one PHC catered to a population of more than 30,000 and ranged between 30,017 (Thane district) and 41,609 (Hingoli district).

3) The rural population served by RHs in the State as of February 2023 is shown in **Map 5.4**.

Map 5.4: Rural Population served by one RH



Source: Population Census 2011 and Public Health Department, GoM, 'Comprehensive Note for 1st Session of Year 2023 (February 2023)

As seen from **Map 5.4**, in four out of 34 districts in the State (excluding Mumbai City and Mumbai Suburban district), one RH catered to the population (as per Census 2011) upto 1,20,000 and ranged between 95,491 (Gadchiroli district) and 1,09,684 (Wardha district). In the remaining 30 districts, one RH catered to a population of more than 1,20,000 and ranged between 1,24,802 (Nandurbar district) and 3,32,871 (Hingoli district).

Thus, the public health infrastructure available in the State was overburdened due to shortages of HCIs as a result of which the existing HCIs catered to population in excess of the norms laid down in IPHS.

As seen from **Map 5.2, 5.3 and 5.4**, the average population served by SC, PHC and RH in Hingoli district was highest indicating shortage of the HCIs in the district. The wide disparity in the population catered by the SCs, PHCs and RHs indicates flaws in the plans to establish HCIs in the State.

Reply of Government was awaited (April 2024).

5.3 Preparation of Master Plan and its implementation

Plans to identify gaps in infrastructure should consider the projected population over the plan period instead of considering the current or past population census.

Audit noticed that PHD approved (January 2013) a Master Plan for establishment of 1,252 new HCIs (including 42 Trauma Care Centres) and upgradation of 56 existing HCIs. The Master Plan was proposed based on population as per the Census 2001, the distance between the existing HCIs,

geographical condition and demands of local public representatives. Further, PHD also approved (June 2014) establishment of additional 54 new HCIs and upgradation of six existing HCIs. The construction of HCIs under the Master Plan was to be completed within five years *i.e.*, upto June 2019.

The Status of the implementation of Master Plan for establishment of 1,264 HCIs (excluding 42 Trauma centres) as of September 2022 is shown in **Table 5.2**.

Table 5.2: Status of implementation of Master Plan for establishment of 1,264 HCIs as of September 2022

Sr. No.	Particulars	SCs	PHCs	DHs, WHs, SDHs and RHs	Total
1	No. of HCIs planned	911	273	80	1,264
2	No of HCIs taken up for construction	901	271	80	1,252
3	HCIs Completed	250	113	7	370
3(i)	Constructed HCIs functional	147	83	7	237
3(ii)	Constructed HCIs not functional	103	30	0	133
4	HCIs not completed	651	158	73	882
4(i)	Work in Progress	171	71	35	277
4(ii)	Work not commenced	480	87	38	605
5	Reasons for non-commencement of work				
5(i)	Land not available	349	66	18	433
5(ii)	Administrative Approval not available	-	-	4	4
5(iii)	Funds not available	131	20	1	152
5(iv)	Estimates not prepared	-	-	3	3
5(v)	Tender stage	-	-	10	10
5(vi)	Reasons not stated	-	1	2	3

Source: Information furnished by Commissioner of Health Services, Mumbai

As seen from **Table 5.2**, 882 HCIs (70 per cent) out of 1,252 HCIs taken up for construction were not completed as of September 2022, though the construction of HCIs was to be completed by June 2019. Further, 133 HCIs (36 per cent) though constructed were not functional due to non-sanction of posts and non-availability of equipment/furniture.

The Master Plan also envisaged upgradation of existing HCIs (increase in bed capacity by 2,770). The Status of upgradation of HCIs included in the master plan is shown in **Table 5.3**.

Table 5.3: Status of upgradation of HCIs included in the Master Plan as of September 2022

Sr. No.	Particulars	HCIs (increase in bed capacity)
1	No. of HCIs planned for upgradation	62(2,770)
2	HCIs upgraded	6(280)
3	HCIs not upgraded	56(2,490)
3(i)	Work in Progress	13(620)
3(ii)	Work not commenced	43(1,870)
4	Reasons for non-commencement of work	
4(i)	Land not available	4
4(ii)	Administrative Approval not available	9
4(iii)	Funds not available	1
4(iv)	Estimates not prepared	17
4(v)	Tender stage	10
4(vi)	Reason not stated	2

Source: Information furnished by Commissioner of Health Services, Mumbai

As seen from **Table 5.3**, 56 HCIs (90 *per cent*) planned for upgradation (with envisaged increased in the bed capacity by 2,490) were not completed though the upgradation was to be completed within five years, *i.e.*, by June 2019.

Reply of Government was awaited (April 2024).

5.4. Renovation/branding of Sub Centres as Health and Wellness Centres

The National Health Policy, 2017 recommended strengthening the delivery of primary healthcare, through establishment of Health and Wellness Centres (HWCs) as platform to deliver comprehensive primary healthcare. GoI announced (February 2018) creation of 1.50 lakh HWCs throughout the country by transforming existing Sub-centers and Primary Health Centres as the base pillar of Ayushman Bharat by 2022.

HWCs are envisaged to deliver 12 types of services that go beyond maternal and child healthcare services to include care for non-communicable diseases, palliative and rehabilitative care, Oral, Eye and Ear Nose Throat (ENT) care, mental health and first level care for emergencies and trauma, including free essential drugs and diagnostic services.

Analysis of data of HWC portal revealed that out of the 14,227 HWCs targeted by Ministry of Health and Family Welfare (GoI) to be rolled out in Maharashtra upto December 2022, the GoM targeted construction/upgradation of 11,286 HWCs upto December 2022. Out of these 11,286 targeted HWCs, GoM had constructed/upgraded 10,875 HWCs as of June 2023. Of these upgraded HWCs, 10,870 HWCs were operational.

5.5. Incomplete works

5.5.1 Incomplete Trauma Care Centre

In order to reduce preventable deaths due to road accidents to 10 *per cent*, GoI implemented the Scheme for “Capacity Building for Development of Trauma Care Facilities in Government Hospitals on National Highways” in the State since the Eleventh Five Year Plan (2007-12). Under this Scheme, GoI had been extending financial assistance to GoM for the establishment of Trauma Care Centres (TCCs), deployment of manpower and purchase of equipment in the State.

PHD, GoM accorded (between 1997 and 2017) approval for the construction of 109 TCCs.

Audit noticed that out of the 109 TCCs (including 42 Trauma Care Centres approved in Master Plan) which were approved for construction, 73 TCCs were constructed as of September 2021. Out of the remaining 36 TCCs, in 10 TCCs work was in progress and in 26 TCCs, work had not been commenced due to non-availability of land (six TCCs), non-receipt of administrative approval (nine TCCs), non-availability of funds (two TCCs) and non-preparation of estimates (nine TCCs).

5.5.2 Delay in commission of Super Speciality Hospital, Amravati (Phase II)

The PHD, GoM approved (August 1998) the establishment of a Super Speciality Hospital (SSH) at Amravati. Phase I of the project was functional from May 2008 with 100 beds. Under phase II, PHD, GoM decided (June 2009) to upgrade the hospital with 120 additional beds. Accordingly, PHD, GoM accorded (June 2009) administrative approval of ₹ 40.06 crore, of which ₹ 29.01 crore was allocated towards the construction of the building. The construction of the building was completed by Public Works Department (PWD), Amravati in June 2015 at a cost of ₹ 31.91 crore. After a delay of more than two years, PWD, Amravati requested (May 2018) Medical Superintendent (MS), SSH, Amravati to take possession of the hospital building. However, the MS, SSH, Amravati took physical possession of the hospital building in July 2019.

Scrutiny revealed the following:

- The construction of phase II was taken up without obtaining commencement certificate from Amravati Municipal Corporation (AMC). On completion of construction, PWD handed over the building to MS, SSH, Amravati who, without ensuring the occupancy certificate (OC) of the building, took over the possession in July 2019. Belatedly, MS, SSH, Amravati requested (January 2021) PWD to submit OC issued by AMC. The MS, SSH Amravati also requested (March 2022) Executive Engineer, PWD, Amravati to carry out repairs to electrical wiring, window panels, fire system *etc.*, due to non-use of the building from June 2015 and installation of higher capacity transformer to commence the medical facilities in the building.
- Equipment *viz.*, digital linear accelerator, invasive cardiac instrument set, heart-lung machine, central oxygen, suction system, anaesthesia workstation worth ₹ 24.89 crore, received between March 2016 and March 2021 were lying unutilised as of March 2022.

Thus, the hospital building constructed at a cost of ₹ 31.91 crore remained unutilised for more than three years, depriving the public from the super speciality medical facilities.

Medical superintendent, SSH, Amravati stated (June 2023) that services such as Non-communicable Disease OPD, Neurosurgery OPD, cardio OPD *etc.* were started in the upgraded building.

The fact remained that the SSH was partially functional as in-patient services have not been started till date.

Recommendation 11: Government may ensure that a comprehensive plan to identify the gaps in infrastructure is prepared considering the projected population and implemented in a time-bound manner so that adequate Health Care Institutes are available as per Indian Public Health Standards. Government may also ensure that land is identified for completion of medical infrastructure.

5.6 Availability of beds under PHD

IPHS prescribes the number of beds required for a DH based on the population of the district, bed days per year and bed occupancy rate. IPHS also envisages allocation of bed strength for various wards in DH considering the bed capacity. Further, as per IPHS, CHCs and PHCs should have 30 beds and six beds respectively.

5.6.1 Availability of beds in District Hospitals against Indian Public Health Standards

IPHS prescribes that the total number of beds required for a DH should be based on the population of the district, bed days per year and bed occupancy rate. Further, as per IPHS, 220 beds are required for every 10 lakh population in each DH.

Audit noticed that in 16 out of 21 DHs, the sanctioned beds were not in accordance with IPHS. Compared with the population as per Census 2011, there was shortage of 7,833 beds in 21 DHs in the State as of May 2023. The status of shortage in beds is shown in **Appendix 5.1**.

As seen from **Appendix 5.1**, the overall shortage of beds in 21 DHs was 56 *per cent* and ranged from 23 *per cent* in Hingoli DH to 86 *per cent* in Pune and Nanded DHs.

5.6.2 Availability of beds for maternal and child care services

IPHS envisages allocation of bed strength for various wards in DH considering the bed capacity of DH. As per IPHS, 21 types of in-patient wards are required to be available in a DH. Out of 21 wards, nine⁵⁹ types of in-patient wards are related to maternal and child care services. Further, the National Medical Commission prescribed the number of beds to be provided for paediatrics and obstetrics & gynaecology services, based on the approved intake capacity of the medical college attached to hospital.

Analysis of information obtained from 21 DHs and 29 hospitals attached to medical colleges in the State as of May 2023 revealed the following:

- Out of 21 DHs, in 16 DHs, there was a shortage of beds for maternal and child care services which ranged from five *per cent* (Pune) to 87 *per cent* (Gadchiroli) as shown in **Appendix 5.2 A**.
- Out of 25 hospitals⁶⁰ attached to medical colleges, there was shortfall in beds for paediatrics and obstetrics & gynaecology services in eight hospitals which ranged from two *per cent* (Government Medical College and Hospital, Ambejogai, District Beed) to 58 *per cent* (Government Medical College and Hospital, Baramati, District Pune) as shown in **Appendix 5.2B**.

⁵⁹ Newborn ward, Mothers room with dining and toilets, Pediatrics ward, Labour room, Labour room (Eclampsia) Septic Labour room, Ante-natal ward, Post-natal ward, Postpartum ward.

⁶⁰ (i) Cancer Hospital, Chhatrapati Sambhajnagar, (ii) Dr. Babasaheb Ambedkar Hospital, Nagpur and (iii) Super Speciality Hospital, Nagpur did not provide maternal services and construction of hospital building of Government Medical College, Satara was in progress.

5.6.3 Availability of beds in Community Health Centres and Primary Health Centres

As per IPHS, CHCs and PHCs are required to provide inpatient service and should have 30 beds and six beds respectively. Audit noticed that all the 17 test-checked CHCs in the seven selected districts (Mumbai City and Mumbai Suburban districts did not have CHCs and PHCs) had 30 bed facility. However, in seven out of 33 PHCs, (PHC, Rajgurnagar, District Pune and PHC, Rohi-Pimpalgaon, District Nanded were under renovation) the availability of beds was less than six, and ranged from two beds (PHC, Patoda and PHC, Kasoda, District Jalgaon) to five beds (PHC, Tudiye, District Kolhapur). The availability of beds in CHCs and PHCs is shown in **Appendix 5.3**.

5.6.4 Shortage of beds in Hospitals *vis-a-vis* sanctioned beds

The details of sanctioned, availability and shortages in beds in respect of DHs, WHs, and Hospitals attached to medical college are shown in **Appendix 5.4 A, B and C** respectively.

Analysis revealed the following:

- In respect of 21 DHs, out of total 6,062 sanctioned beds, 5,681 beds were available as of May 2023. The overall shortage of available beds against the sanctioned beds in 21 DHs was six *per cent*. Out of 21 DHs, in eight DHs the available beds were as per the sanction and in three DHs the available beds were more than the sanction. In 10 DHs, there was shortage of beds ranging from one *per cent* (DH, Pune) to 76 *per cent* (DH, Nanded).
- In respect of 19 WHs, out of 2,465 sanctioned beds, 2,360 beds were available. The overall shortage of available beds against the sanctioned beds in 19 WHs was four *per cent*. Out of 19 WHs, in three WHs, the available beds were as per the sanction and in nine WHs the available beds were more than the sanction. In seven WHs, there was shortage of available beds, which ranged from one *per cent* (WH, Baramati, Pune) to 73 *per cent* (WH, Malegaon).
- In 27 hospitals⁶¹ attached to medical colleges, out of 15,651 sanctioned beds, 15,618 beds were available. In 12 hospitals attached to medical colleges, the shortage of available beds ranged from two *per cent* (Swami Ramanand Teerth Rural Medical College Hospital, Ambejogai, Beed) to 43 *per cent* (Chhatrapati Pramilaraje Hospital, Kolhapur).

⁶¹ Dr. Babasaheb Ambedkar Hospital and Research Centre, Nagpur did not provide IPD services and construction of hospital building of Government Medical College, Satara was in progress

