



सत्यमेव जयते

**Performance Audit Report of the
Comptroller and Auditor General of India
on
Public Health Infrastructure and Management
of Health Services in Maharashtra**



SUPREME AUDIT INSTITUTION OF INDIA
लोकहितार्थ सत्यनिष्ठा
Dedicated to Truth in Public Interest



Government of Maharashtra
Report No. 2 of the year 2024

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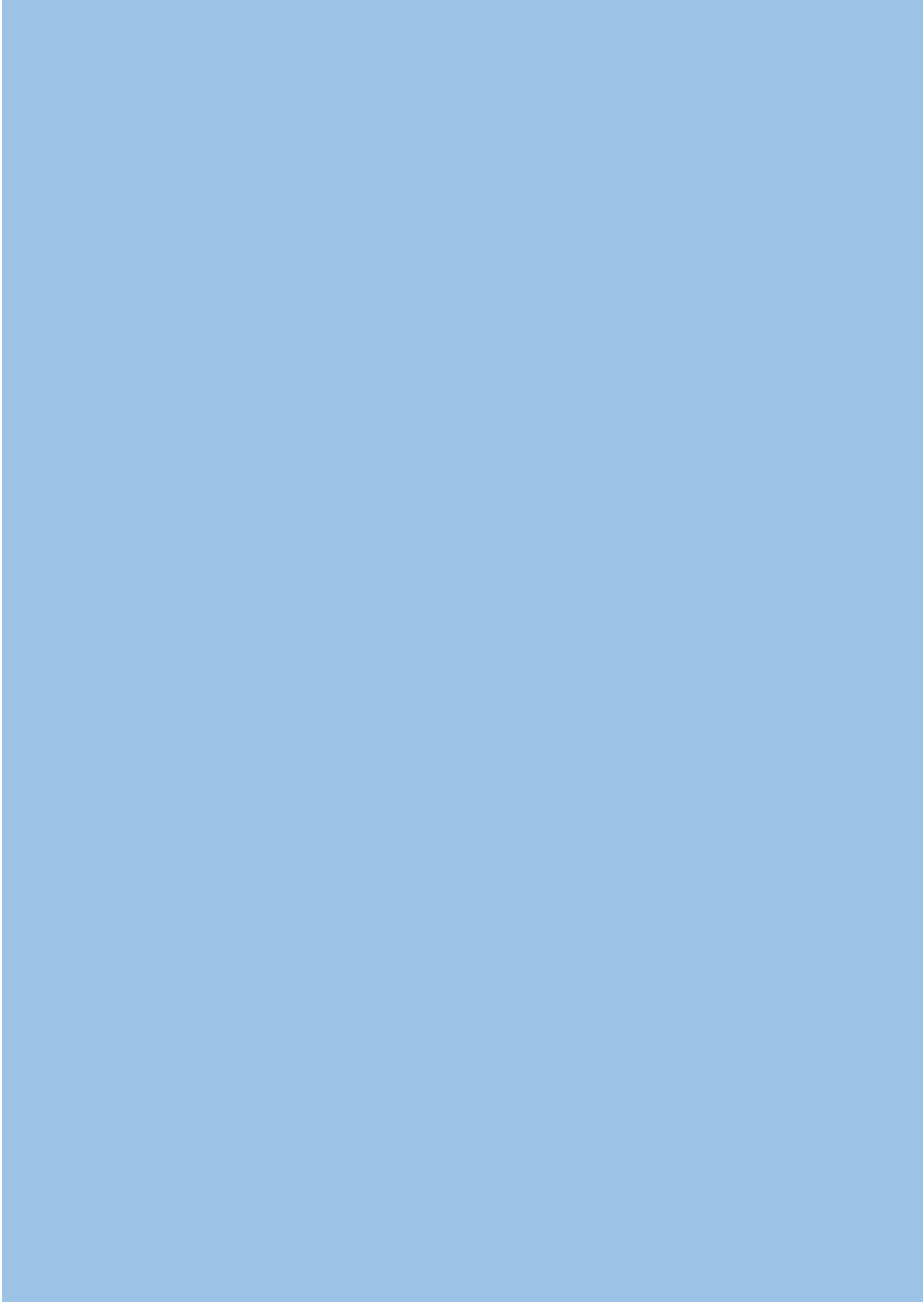
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Preface



Preface

This Report for the year ended 31 March 2022 has been prepared for submission to the Governor of Maharashtra under Article 151 of the Constitution of India.

The Report covering the period 2016-17 to 2021-22 contains the results of the performance audit on “Public Health Infrastructure and Management of Health Services in Maharashtra”.

The audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

Executive Summary

Executive Summary

Maharashtra is the second most populous and the third largest State in terms of area in the country. Providing adequate and quality healthcare services to a large population requires a robust healthcare infrastructure and services. Primary and secondary healthcare in Maharashtra is provided by the Public Health Department, Government of Maharashtra while tertiary healthcare is provided mostly by the Medical Education and Drugs Department, Government of Maharashtra. The Urban Development Department, Government of Maharashtra also provides primary, secondary and tertiary healthcare in urban areas through Municipal Corporations/Councils. Drugs, medicines and medical equipment were centrally procured and supplied to Public Health Department and Medical Education and Drugs Department through Haffkine Bio-Pharmaceutical Corporation Limited, a Government of Maharashtra Company.

The Performance Audit was conducted to assess the availability of human resources, drugs, medicines, equipment and the adequacy and quality of healthcare infrastructure in the State. The funding and expenditure under central and centrally sponsored health sector schemes, adequacy and effectiveness of regulatory mechanisms and the improvement in the health and well-being of people as per Sustainable Development Goal-3 were also assessed.

Public health is a State subject and the States are expected to frame their own policies on the line of the National Health Policy to guide the development of the health sector. Government of Maharashtra is yet to frame a State-specific Health Policy.

*Audit noticed shortage of manpower at every level of the Health Care Institutions functioning under Public Health Department, and Medical Education and Drugs Department. The shortage of doctors, nurses and paramedical staff was 22 per cent, 35 per cent and 29 per cent respectively in primary and secondary healthcare under Public Health Department. Whereas in respect of Women Hospitals under Public Health Department the shortage of doctors, nurses and paramedical staff was 23 per cent, 19 per cent and 16 per cent respectively. There was also shortage of 42 per cent in the cadre of the specialist doctors under Public Health Department. The shortage of doctors, nurses and paramedics under Medical Education and Drugs Department was 37 per cent, 35 per cent and 44 per cent respectively. The overall shortage in the cadre of doctors, nurses and paramedics in the State under Public Health Department and Medical Education and Drugs Department was 27 per cent, 35 per cent and 31 per cent respectively. Audit also noticed regional disparity in the shortage of manpower. Similarly, the vacancies in the Trauma Care Centres under Public Health Department and Medical Education and Drugs Department were 23 per cent and 44 per cent respectively. The vacancies in the cadre of doctors, nurses and paramedical staff in AYUSH colleges and hospitals under Medical Education and Drugs Department was 21 per cent, 57 per cent and 55 per cent respectively. The sanctioned strength of doctors was less than the requirement as per Indian Public Health Standards, 2012 by 17 per cent under Public Health Department. **Government may fill up the vacancies in the health sector in a time-bound manner to ensure optimal and qualitative***

delivery of healthcare services to public. Government may also increase the sanctioned strength of doctors under Public Health Department as recommended in Indian Public Health Standards.

The public health infrastructure available in the State was overburdened due to shortages of Health Care Institutions as a result of which the existing Health Care Institutions catered to population in excess of the norms laid down in Indian Public Health Standards. There was wide disparity in the population catered to by the Sub-Centres, Primary Health Centres and Rural Hospitals, indicating flaws in the plans to establish Health Care Institutions. Audit noticed that 70 per cent of the work of constructing new Health Care Institutions and 90 per cent of the work of upgradation of Health Care Institutions as per the master plan (January 2013 and June 2014) was not completed as of September 2022. Super Speciality Hospital (Phase II), Amravati constructed at the cost of ₹ 31.91 crore in June 2015 remained unutilised for more than three years. Further, 433 works included in the master plan could not be started due to non-availability of land. **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.**

Out-Patient Department services in hospitals were inadequate with 93 per cent of Rural Hospitals having only one registration counter as against two required as per Indian Public Health Standards in the seven selected districts. Audit also noticed long waiting time for registration, and 26 per cent of doctors attending more than double the minimum number of patients as per Indian Public Health Standards. Several specialist Out-Patient Department services such as general medicines, general surgery, dental services, etc., were not available in many of the district hospitals, women hospitals and hospitals attached to medical colleges. **Government may ensure that specialist services such as general medicines, general surgeries, dental services, etc., are provided in all the Health Care Institutions as per Indian Public Health Standards.** Audit also noticed non-availability of radiology and imaging services. **Government may ensure that essential radiology services such as X-ray, Ultrasonography and Mammography are made available in Health Care Institutions as per Indian Public Health Standards.**

Patient-centric diet was not provided in 33 test-checked Sub-District and Rural Hospitals. Diet committees were not formed in seven (nine per cent) out of 78 test-checked Health Care Institutions providing dietary services. Testing of food supplied by contractors was not done from the Public Health Laboratory by 16 test-checked Health Care Institutions under the Public Health Department. **Government may ensure that the nutritional requirements of patients are addressed by delivery of patient-centric diets.** Failure to obtain No Objection Certificate from the Fire Department by 36 test-checked Health Care Institutions, non-compliance to fire electric safety recommendations by all the test-checked Health Care Institutions in eight selected districts and failure to take action on structural audit recommendations by eight test-checked Health Care Institutions exposed the life of patients and staff and property to risk of

fire. Government may ensure that the Health Care Institutions comply with fire, electric and structural audit requirements in a time-bound manner.

The failure of Haffkine Bio-Pharmaceutical Corporation Limited to place supply order resulted in funds to the tune of ₹ 2,052.28 crore lying unutilised with Haffkine Bio-Pharmaceutical Corporation Limited. Audit noticed that 71 per cent of the items demanded by the test-checked Health Care Institutions were not supplied by the Haffkine Bio-Pharmaceutical Corporation Limited during 2017-18 to 2021-22. The procurement process of Haffkine Bio-Pharmaceutical Corporation Limited may be streamlined to ensure timely availability of medicines, consumables and equipment to the Health Care Institutions.

Audit noticed non-supply of equipment, equipment lying idle/non-commissioned and improper storage of drugs and medicines in the Health Care Institutions. Government may fix responsibility on officials responsible for improper storage of medicines and consumables and ensure that medicines and consumables are stored as per Indian Public Health Standards. Government may also fix responsibility on officials responsible for non-utilisation of equipment and take steps to ensure its commissioning on top priority.

The Medical Education and Drugs Department was relying only on the analysis report of drugs and medicines provided by the supplier without ensuring independent quality control testing. Government may establish standardised quality control mechanism to ensure supply of quality medicines to the patients.

e-Aushadhi is a web-based supply chain management application software solution for managing annual demand, purchase, inventory and distribution of various drugs and consumables. Test-analysis of e-Aushadhi data of the seven selected districts relating to central purchase (2016-17 to 2021-22) indicated errors in the drug details entered into the system. Government may consider capturing of drugs details automatically from the bar codes present on the supplied items and in case of manual entries, ensure that supervisory authorities are certifying the data correctness. A periodic exercise to identify erroneous information present in the system can also be put in place.

There were persistent savings from the budgetary allocation under Public Health Department and Medical Education and Drugs Department during 2016-17 to 2021-22 to the tune of ₹ 0.22 lakh crore and release of funds at the fag end of the financial year. The percentage of capital expenditure to total expenditure on health ranged between 4.68 per cent and 7.97 per cent during 2016-17 to 2021-22. Government may ensure that funds are made available throughout the year to avoid rush of expenditure in March and also ensure utilisation of available funds. Maharashtra's health budget to the total State budget as of March 2022 was only 4.91 per cent as against the National Health Policy target of more than eight per cent. Government may take necessary steps to increase the budgetary allocation for the health sector as a percentage of State Budget in line with the National Health Policy.

The National Health Mission encompasses two sub-missions, the National Rural Health Mission and the National Urban Health Mission. The non-utilisation of funds under the National Urban Health Mission ranged

between 18 per cent and 76 per cent during 2016-17 to 2021-22, while non-utilisation under National Rural Health Mission ranged between 19 per cent and 50 per cent during 2016-17 to 2021-22. **Government may ensure proper utilisation of the available National Health Mission funds, minimise the savings and strive to improve health benefits to the public.**

Targets under the National Leprosy Eradication Programme, National Tuberculosis Elimination Programme and Family Welfare Scheme were not achieved. **Government may make efforts to extend the benefits of the scheme to maximum beneficiaries.**

Clinical Establishment Act, 2010 has not been adopted in Maharashtra and the private nursing homes/healthcare facilities in the State were regulated as per the provisions of the Bombay Nursing Home Registration Act, 1949 having limited scope. The non-adoption increased the risk of clinical establishment running without registration and deficiencies in providing proper healthcare by the clinical establishments. **Government may explore the possibility of adopting the Clinical Establishment Act, 2010 so that all the clinical establishments in the State are registered and are adequately monitored to ensure that minimum standards of facilities and services are provided to public. Government may also ensure that updated database of medical facilities is maintained.**

Out of 1.71 lakh doctors registered by Maharashtra Medical Council as Registered Medical Practitioners till 2021-22, registrations of 0.69 lakh Registered Medical Practitioners due for renewal upto March 2022 including 4,071 RMPs who were registered before 1 May 1960, were not renewed till May 2022. **The Maharashtra Medical Council may have appropriate mechanism for updating the register of Registered Medical Practitioners to ensure accurate information on the actual number of active Registered Medical Practitioners in the State.**

Local Supervising Authorities were not conducting periodical inspection of registered private Nursing Homes. The persistent shortage of manpower in Food and Drug Administration resulted in shortfall in its regulatory functions, like inspections, sample testing, etc. **Government may fill the vacancies in Food and Drugs Administration in a time bound manner to strengthen its regulatory function. Government may also direct and ensure that the Local Supervising Authorities conduct periodical inspections of registered private nursing homes as per the provision of Maharashtra Nursing Homes Registration (Amendment) Rules, 2021.**

Instances of Health Care Institutions not having authorisation from the Maharashtra Pollution Control Board for generation, collection, storage, transportation, etc., of bio-medical waste and disposal of liquid waste without treatment were noticed. **Government may ensure that the provisions of the Bio-Medical Waste Management Rules are strictly followed for safe storage, collection and disposal of bio-medical waste generated in Health Care Institutions.**

The State budget was not aligned to Sustainable Development Goals. Out of 41 National indicators developed for Sustainable Development Goal-3, for 16 indicators, the State Government had not fixed any targets. Out of the

*remaining 25 indicators, in four indicators, the State had achieved the targets. In 11 indicators, the performance of the State was above the National average, in one indicator the performance was below the National average while in nine indicators the data on the performance of the State was not available. **Government may consider alignment of State health budget to Sustainable Development Goal-3.***

CHAPTER 1

Introduction

the 1990s, the number of people in the world who are under 15 years of age is expected to increase from 1.1 billion to 1.5 billion.

As the world's population grows, the demand for food and other resources will increase. This will put pressure on the environment and on the world's food supply.

One way to meet this demand is to increase the amount of food that is produced. This can be done by using more land for agriculture, or by increasing the productivity of the land that is already being used.

Another way to meet this demand is to reduce the amount of food that is wasted. This can be done by improving the way that food is stored and distributed, or by changing the way that people eat.

There are many ways to meet the world's growing demand for food and other resources. It is important that we find ways to do this that do not harm the environment or the people of the world.

One way to do this is to use sustainable agriculture. This is a way of farming that uses natural resources in a way that does not harm them, and that can be continued for a long time.

Sustainable agriculture can help to meet the world's growing demand for food and other resources in a way that is good for the environment and for the people of the world.

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Chapter 1: Introduction

1.1 Introduction

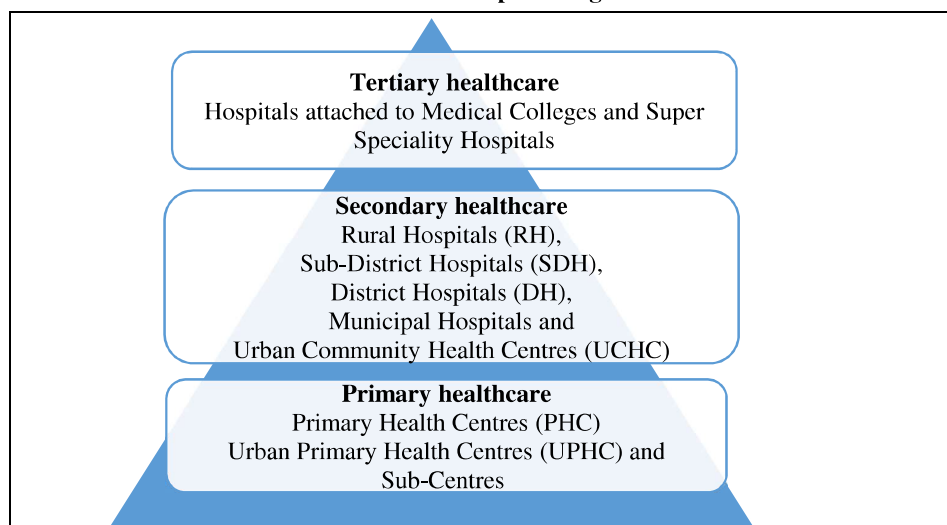
Health is a vital indicator of human development and a basic ingredient of economic and social development. A robust public health infrastructure and effective management of health services are of vital importance to ensure good health of citizens. The public health infrastructure comprises of hospitals and other health care institutions (HCIs) while the health services comprise of services such as emergency, preventative, rehabilitative, long-term hospitalisation, diagnostic, primary, palliative, and home care. These services can be broadly divided into three categories namely:

- (a) **Line Services:** Services directly related to patient care like Outdoor Patient Department, Indoor Patient Department, Emergency, Super Speciality, Intensive Care Units, Operation Theatre, Blood Bank, Maternity and Diagnostic services.
- (b) **Support Services:** Services indirectly related to patient care like Oxygen Services, Dietary Services, Laundry Services, Bio-Medical Waste Management, Ambulance Services and Mortuary Services.
- (c) **Auxiliary Services:** Services for facilitating the delivery of healthcare services like patient safety facilities, patient registration, grievance/complaint redressal and stores.

1.2 Healthcare facilities in Maharashtra

The landscape of public healthcare facilities in the State is structured into three levels for providing primary healthcare, secondary healthcare and tertiary healthcare. Primary and secondary healthcare are provided by the Public Health Department (PHD), Government of Maharashtra (GoM) while tertiary healthcare is provided mostly by the Medical Education and Drugs Department (MEDD), GoM. Primary, secondary and tertiary healthcare are also provided through Municipal Corporations/Councils. The various HCIs providing primary, secondary and tertiary healthcare are shown in **Chart 1.1**.

Chart 1.1: Health Care Institutions providing health care in the State

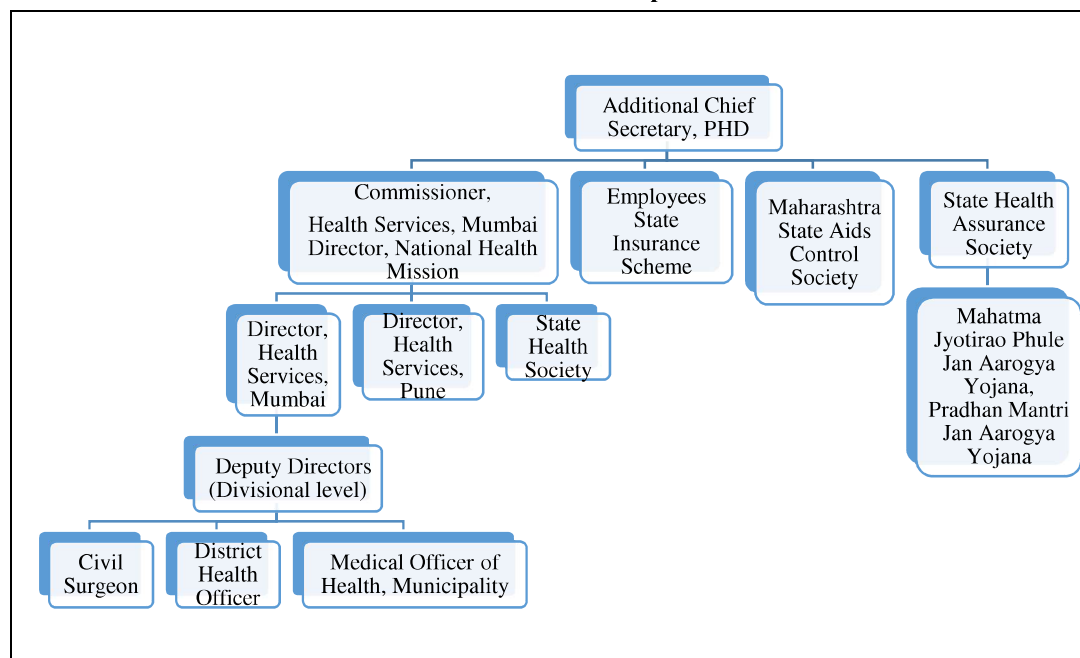


Source: Data compiled from information received from PHD and MEDD

1.3 Organisational Setup

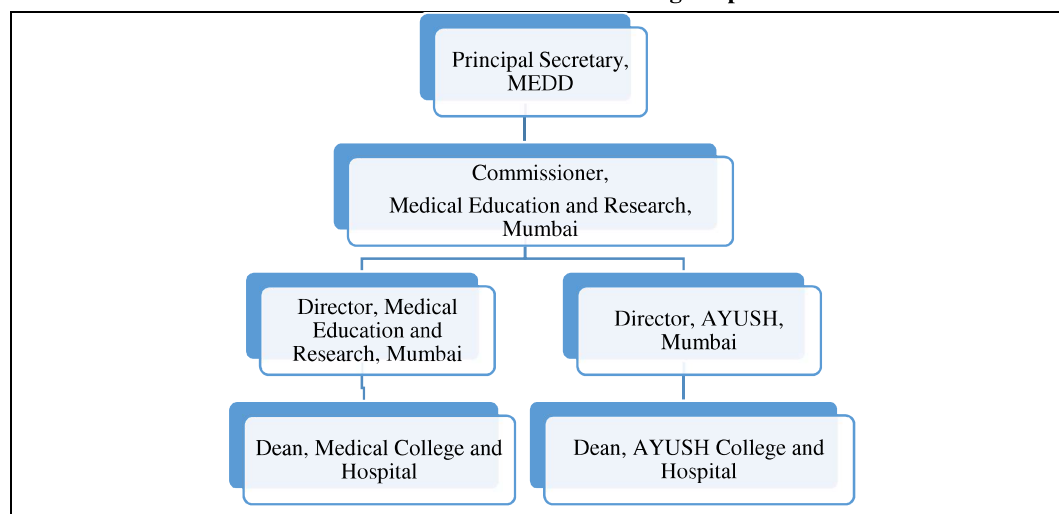
The PHD and MEDD are the nodal departments concerned with public health in the State. The District Health Officer/Medical Officer under Zilla Parishads report functionally to the Deputy Directors of Health Services of PHD and administratively to Chief Executive Officer, Zilla Parishads. The functional hierarchy of PHD and MEDD is shown in **Chart 1.2** and **1.3**.

Chart 1.2: Public Health Department



Source: Information furnished by Public Health Department

Chart 1.3: Medical Education and Drugs Department



Source: Information furnished by Medical Education and Drugs Department

The Municipal Hospitals, Urban Community Health Centres (UCHCs) and Urban Primary Health Centres (UPHCs) function under administrative control of respective Municipal Corporations.

The Haffkine Bio-Pharmaceutical Corporation Limited (HBPCL), a Government of Maharashtra Company was entrusted (July 2017) with the purchase of all drugs and medical equipment in the State for PHD and MEDD. The Local Bodies in the State, however, had the option of procuring through HBPCL or through their own procurement system.

1.4 Public Health Funding

The State Government makes budgetary provisions annually for the State's health sector. Financial assistance under the National Health Mission is received from the Government of India with corresponding share of the State Government in the ratio of 60:40. The State Health Society disburses these funds to the District Health Societies for further release to the implementing units such as Community Health Centres, Primary Health Centres and Sub-Centres, *etc.*

1.4.1 Expenditure on Healthcare

Expenditure on health and family welfare is an important parameter to gauge the importance given to this sector by Government. Funds expended during the financial year 2016-17 to 2021-22 on health and family welfare by GoM are shown in **Table 1.1**.

Table 1.1: Expenditure on health and family welfare by PHD and MEDD

Particulars	Expenditure on Health and Family Welfare (₹ in crore)					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Gross State Domestic Product (GSDP)	21,98,185	23,52,782	25,67,897 ¹	27,34,552 ²	27,11,685 ³	31,97,782 ⁴
Revenue Expenditure on Health and Family Welfare	10,121.43	11,604.72	11,969.31	13,576.27	16,102.16	19,455.10
Capital Expenditure on Health and Family Welfare	602.37	569.85	1,036.72	1,115.86	989.70	1,612.23
Loans and Advances on Health and Family Welfare	0.02	0	0	0	0	0
Total Expenditure	10,723.82	12,174.57	13,006.03	14,692.13	17,091.86	21,067.33
Percentage of expenditure on health <i>vis-à-vis</i> GSDP (in <i>per cent</i>)	0.49	0.52	0.51	0.54	0.63	0.66
Total expenditure of the State (Capital outlay + Revenue expenditure + Loans and advances)	2,45,055.20	2,69,392.50	3,03,615.90	3,38,690.60	3,42,638.30	3,98,792.31
Percentage of expenditure on health <i>vis-à-vis</i> total expenditure of the State	4.38	4.52	4.28	4.34	4.99	5.28

Source: Compiled from State Finance Accounts of Maharashtra for the year 2016-17 to 2021-22 and Economic Survey of Maharashtra for the year 2021-22

Health expenditure as a percentage of the GSDP ranged between 0.49 *per cent* (2016-17) and 0.66 *per cent* (2021-22). Similarly, health expenditure as a percentage of total expenditure of the State ranged between 4.28 *per cent* (2018-19) and 5.28 *per cent* (2021-22). However, the State's performance in

¹ 2018-19: Third revised estimates.

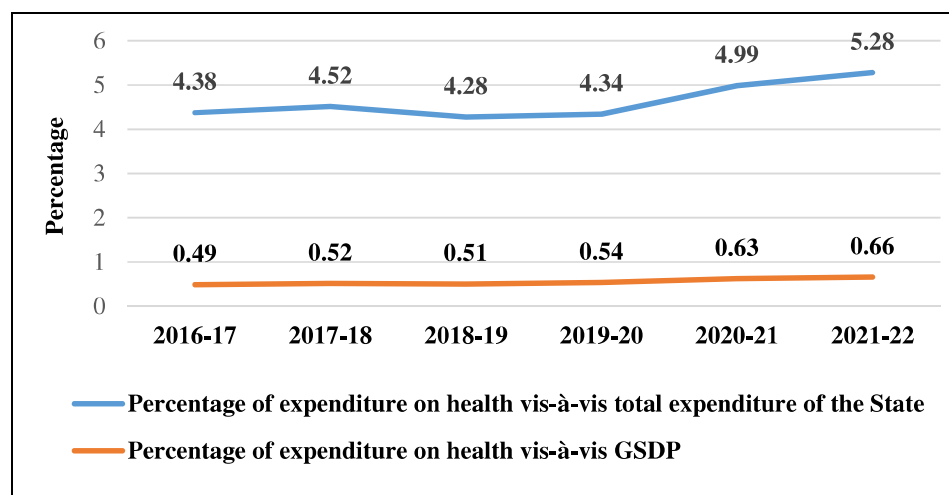
² 2019-20: Second revised estate.

³ 2020-21: First revised estimate.

⁴ 2021-22: Advance estimate.

terms of expenditure on health as a percentage of GSDP and the total expenditure of the State showed an increasing trend as shown in **Chart 1.4**.

Chart 1.4: Expenditure on healthcare as a percentage of GSDP and total expenditure of the State



Source: Compiled from State Finance Accounts of Maharashtra for the year 2016-17 to 2021-22 and Economic Survey of Maharashtra for the year 2021-22.

1.5 Health Infrastructure

To deliver quality health services, adequate and properly maintained infrastructure is of critical importance. The availability of HCIs in Maharashtra is shown in **Table 1.2** and **Table 1.3**.

Table 1.2: Health care Institutions under PHD as of March 2022

Sr. No.	Health Care Institution under PHD	Number of units
1	District Hospitals	22 ⁵
2	Women Hospitals	20 ⁶
3	Mental Hospitals	04
4	Rural Hospitals ⁷ (30 bedded)	364
5	Sub-District Hospitals (50 bedded)	63
6	Sub-District Hospitals (100 bedded)	32
7	Other General Hospitals	08
8	Tuberculosis (TB) Hospitals	05
9	Leprosy Hospitals	02
10	Super Speciality Hospitals	02
11	Primary Health Centres	1906
12	Sub-Centers	10,740
	Total	13,168

Source "Comprehensive Note for 1st Session of Year (February 2023)" prepared by Public Health Department

⁵ Number of District Hospitals had reduced from 22 to 21 as of May 2023, since one District Hospital was attached to newly establish Medical College.

⁶ One Women Hospital in Dhule district was under construction and therefore the employees were working in District Hospital, Dhule.

⁷ In Maharashtra Community Health Centre is termed as Rural Hospital (RH).

Table 1.3: Government Medical Colleges in Maharashtra as of March 2022

Sr. No.	Health Care Institutions under MEDD	Number of units
1	Government Medical Colleges*	19 ⁸
2	Private Medical Colleges	18
3	Brihanmumbai Municipal Corporation (BMC) Medical Colleges [#]	04
4	Deemed University (Medical)	10
5	Kasturba Health Society's M.G. Medical College, Sevagram, Wardha	01
6	Rajiv Gandhi Medical College, Thane (under Thane Municipal Corporation)	01
7	Dental Colleges Government: 03 Other (BMC): 01 Private: 25 Deemed University: 08	37
8	Nursing Education Institutes Government: 04 Private: 117	121
9	Ayurveda, Yoga, Unani, Siddha and Homocopathy (AYUSH) Government Colleges [^] : 05 ⁹ Private: 131	136
	Total	347

Source: Information Compiled from the Performance Budget of the MEDD for the year 2021-22

*27 Hospitals attached to 19 Medical Colleges¹⁰ excluding six training health units

Four Hospitals attached to Four Medical Colleges

[^]Five hospitals are attached to five AYUSH colleges

Thus, there were 13,515 HCIs (PHD: 13,168 HCIs and MEDD: 347 HCIs) in the State excluding HCIs functioning under UDD as of March 2022. The list of Government medical colleges and attached hospitals including AYUSH colleges and attached hospitals is shown in **Appendix 1.1**.

1.6 Human Resources in Healthcare

The availability of adequate manpower is essential to provide effective health services. The availability of doctors in Maharashtra in PHD and MEDD is shown in **Table 1.4**.

Table 1.4: Men-in-position of doctors in PHD and MEDD as of May 2023

Sr. No.	Name of the Department	Sanctioned Strength	Persons in Position
1	Public Health Department [#]	7,672	5,989
2	Medical Education and Drugs Department ^{\$}	3,722	2,341
	Total	11,394	8,330

Source: [#]Information furnished by District Health Officers and District Civil Surgeons in May 2023". ^{\$}Data furnished by MEDD in May 2023

As seen from **Table 1.4**, as against the sanctioned strength of 11,394 doctors, the available doctors was 8,330. In addition, under National Health Mission,

⁸ Number of medical colleges has increased from 19 to 21 as of May 2023.

⁹ Number of Government AYUSH medical colleges had increased from five to seven as of May 2023. A total of seven hospitals were attached to these seven colleges. In addition, there are two more Government AYUSH hospitals in the State as of May 2023.

¹⁰ Number of medical colleges has increased from 19 to 21 and the number of attached hospitals increased from 27 to 29 hospitals as of May 2023.

against the sanctioned strength of 7,540 contractual specialist doctors/medical officers, the persons in position was 4,701 as of March 2023.

1.7 Status of Health Indicators in the State

As per the National Family Health Survey (Report No. 4 and 5) issued by the Ministry of Health and Family Welfare, GoI, the status of Maharashtra *vis-à-vis* the national average against some important health indicators is shown in **Table 1.5**.

Table 1.5: Comparison of Health indicators in Maharashtra *vis-à-vis* India

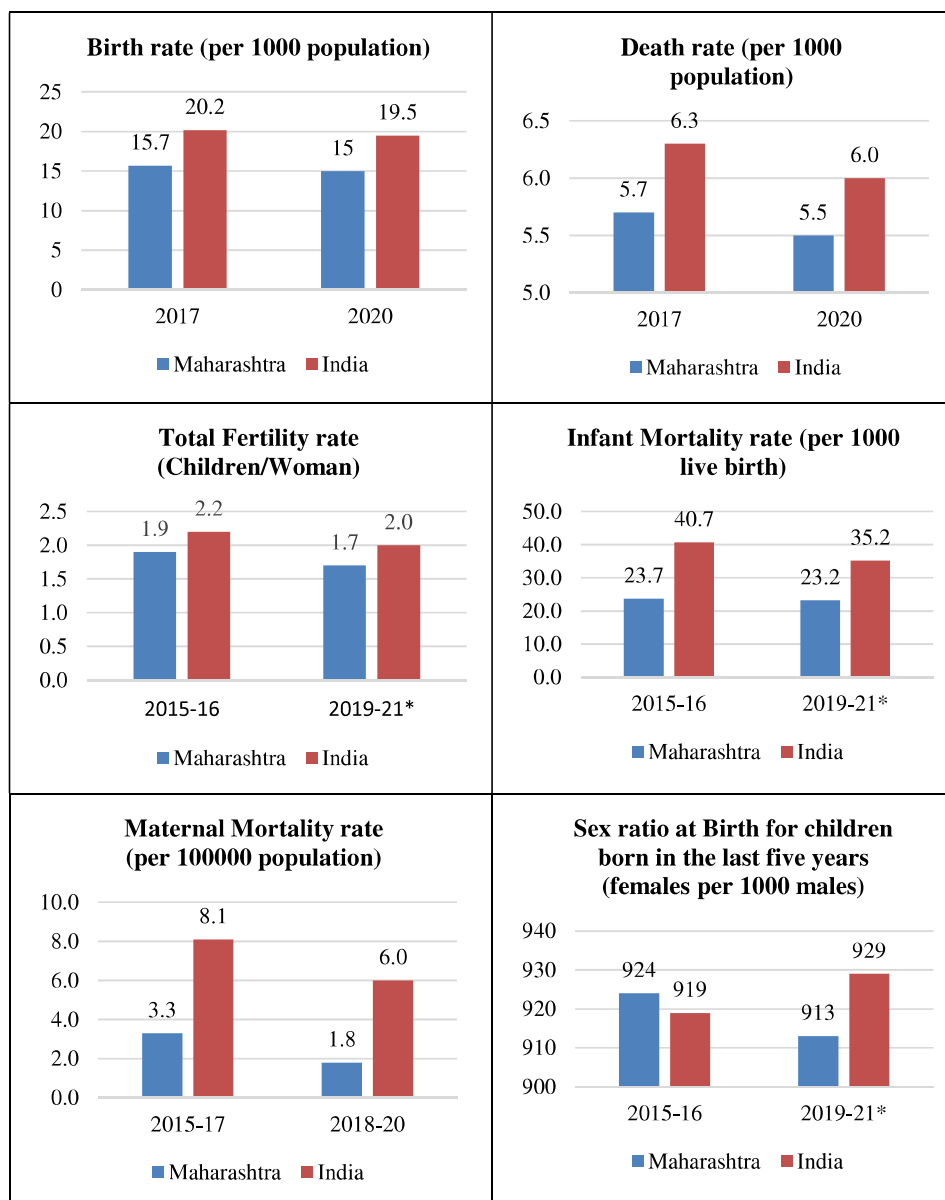
Sr. No.	Health Indicators	NFHS 4		NFHS 5	
		Maharashtra	India	Maharashtra	India
1	Neo-natal Mortality rate	16.2	29.5	16.5	24.9
2	Infant Mortality rate	23.7	40.7	23.2	35.2
3	Under Five Mortality rate	28.7	49.7	28.0	41.9
4	Total children Aged 6-23 months received an adequate diet (<i>per cent</i>)	6.5	9.6	9.0	11.3
5	Children under five year who are stunted (<i>per cent</i>)	34.4	38.4	35.2	35.5
6	Children aged 12-23 months fully vaccinated (<i>per cent</i>)	56.2	62.0	73.5	76.4
7	Children aged 6-59 month who are anaemic (<i>per cent</i>)	53.8	58.6	68.9	67.1
8	Pregnant women aged 15-49 years who are anaemic (<i>per cent</i>)	49.3	50.4	45.7	52.2
9	All women aged 15-49 years who are anaemic (<i>per cent</i>)	48.0	53.1	54.2	57.0

Source: National Family Health Survey (Report No. 4 and 5) issued by Ministry of Health and Family Welfare, GoI

Out of the nine health indicators shown in **Table 1.5**, the performance of the State was better than the All India performance in six indicators (Serial No. 1,2,3,5,8 and 9 of Table 1.5) as per NFHS 5. Further, there was improvement in five health indicators (Serial No. 2,3,4,6 and 8 of Table 1.5) of the State as per NFHS 5 compared to NFHS 4.

Major health indicators of the State compared with national figures are shown in **Chart 1.5**.

Chart 1.5: Health indicators in the State



*Figure for Maharashtra pertains to the period 2019-20

(Source: Sample Registration System bulletins for the respective years, National Family Health Survey Report No. 4 and 5, Special bulletin Maternal Mortality in India)

As seen from **Chart 1.5**, the performance of the State was better in all the indicators than the All India indicators except sex ratio at birth for children born in the last five years.

1.8 Performance against SDG-3

The Sustainable Development Goals (SDGs) 2030, also known as the Global Goals, were adopted by the United Nations in the year 2015 as a universal call of action to end poverty, protect the planet, and ensure that by the year 2030, all people enjoy peace and prosperity. The 17 SDGs and 169 targets are part of the

2030 Agenda for Sustainable Development adopted by 193 Member States at the UN General Assembly summit held in September 2015 and came into effect from 1 January 2016.

The Planning Department, GoM is the nodal department for the implementation of SDGs in the State. The audit findings on SDG-3 have been incorporated in Chapter 9 of the Report.

“Good Health and Well-being” -(SDG 3) is one of the 17 SDGs. The SDG-3 proposes to end preventable death of newborns, infants, and children under five years (child mortality) and end epidemics. A comparison of status of health indicators under SDG-3 of Maharashtra with All India score is shown in **Table 1.6**.

Table 1.6: Status of Health Indicators under SDG-3 in Maharashtra as of December 2023

Indicator number	Particulars of Indicator	India	Maharashtra
3.1	Maternal Mortality Ratio (MMR) (per 1,00,000 live births)	97	33
3.1.2	Percentage of births attended by skilled health personnel	89.4	93.8
3.2	Under five-year mortality rate (per 1,000 live births)	32	18
3.b.1	Percentage of children in the age group 12-23 months fully immunised	76.6	81.7
3.7.3	Percentage of institutional deliveries out of the total deliveries reported	90.6	94.7
3.8.7	Percentage of TB cases successfully treated	86	87

Source: National Indicator Framework on SDG 3.0 and Information furnished by DHS, Mumbai

As seen from **Table 1.6**, the performance of the State in all the indicators was better than the All-India average.

1.9 Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana

Ministry of Health & Family Welfare, GoI launched (September 2018) Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) to provide health cover, *inter alia*, to families included in the Socio-Economic Caste Census (SECC), 2011. The health cover was ₹ five lakh per year per family. In Maharashtra, 74.37 lakh beneficiaries were registered under AB-PMJAY as of March 2022. The audit findings on the implementation of AB-PMJAY are included in Chapter 7 of the Report.

1.10 State Health Policy

Public health is a State subject and States are expected to frame their own policies on the lines of the National Health Policy, 2017 (NHP) to guide the development of the health sector in each State. Audit observed that the GoM had not yet framed a State-specific Health Policy.

1.11 Status of adoption of Indian Public Health Standards

Indian Public Health Standards (IPHS) are a set of uniform standards envisaged to improve the quality of health care delivery in the country. IPHS are the benchmarks for the quality expected from various health care organisations.

Table 1.7: Status of adherence to standardisation of services and resources

Intervention/Inputs	Availability of State Government Norms	Other standards/Norms	Audit remarks
Outpatient Department (OPD)/Inpatient Department (IPD)	State Government is following IPHS	Indian Public Health Standards (IPHS)	Audit scrutiny revealed that HCIs were not able to cater to patients as per IPHS norms in respect of various outpatient and inpatient services as brought in Chapter 3 of the report.
Human Resources	State Government is following IPHS	IPHS	Audit scrutiny revealed that the sanctioned strength of doctors was less than the requirement as per IPHS and also shortage in the cadre of nurses and paramedics as discussed in Chapter 2 of the report.
Drugs and Consumables	Essential drug List	IPHS, Maternal and New born Health Toolkit, National Health Mission guidelines	Essential drugs list was last updated in 2019, containing 198 medicines for various therapeutic uses. Out of the essential drugs, few drugs were marked as vital drugs. Audit scrutiny revealed shortfalls in the availability of vital drugs in HCIs as discussed in Chapter 4 of the report.
Equipment	State Government is following IPHS.	IPHS	Audit scrutiny revealed shortages in the availability of essential equipment in District Hospitals as discussed in Chapter 4 of the report.

1.12 Audit objectives

The Performance Audit was conducted to assess:

- the availability of human resource at all levels in the healthcare sector;
- the adequacy and quality of health care infrastructure in the State and its management;
- the availability of quality drugs, medicines, equipment and other consumables to the patients;
- the adequacy of planning and funds for the healthcare sector in the State;
- the funding and expenditure of central sector and centrally sponsored health sector schemes;
- the adequacy and effectiveness of the regulatory mechanism for ensuring quality healthcare services in the State; and
- improvement in the health and well-being of people as per SDG 3 due to State's spending on health sector.

1.13 Audit Criteria

The Audit criteria was derived from the following sources:

- National Health Policy, 2017;
- Sustainable Development Goals;
- Indian Public Health Standards, 2012 (IPHS);
- Drugs and Cosmetic Act, 1940 and Rules, 1945;
- The Pharmacy Act, 1948;
- Maharashtra Medical Council Act, 1965 and Rules, 1967;
- Maharashtra Fire Prevention and Life Safety Measures Act, 2006;
- Bio-Medical Waste Management Rules, 2016;
- Atomic Energy (Radiation Protection) Rules, 2004;
- National Medical Commission Act, 2019 and Minimum Requirements for Annual M.B.B.S. Admissions Regulations, 2020;
- National Disaster Management Guidelines for Hospital Safety, 2016;
- NHM Assessor's Guidebook;
- The Clinical Establishments (Registration and Regulation) Act, 2010;
- Maharashtra Nursing Homes Registration Act;
- Hospital Administration Manual, Government of Maharashtra, 1976;
- Mumbai Municipal Corporation Act, 1888 and the Maharashtra Municipal Corporations Act, 1949;
- Maharashtra Budget Manual and Maharashtra Treasury Rules, 1968; and
- Central and State Government instructions/resolutions/guidelines issued from time to time.

1.14 Audit Scope and Methodology

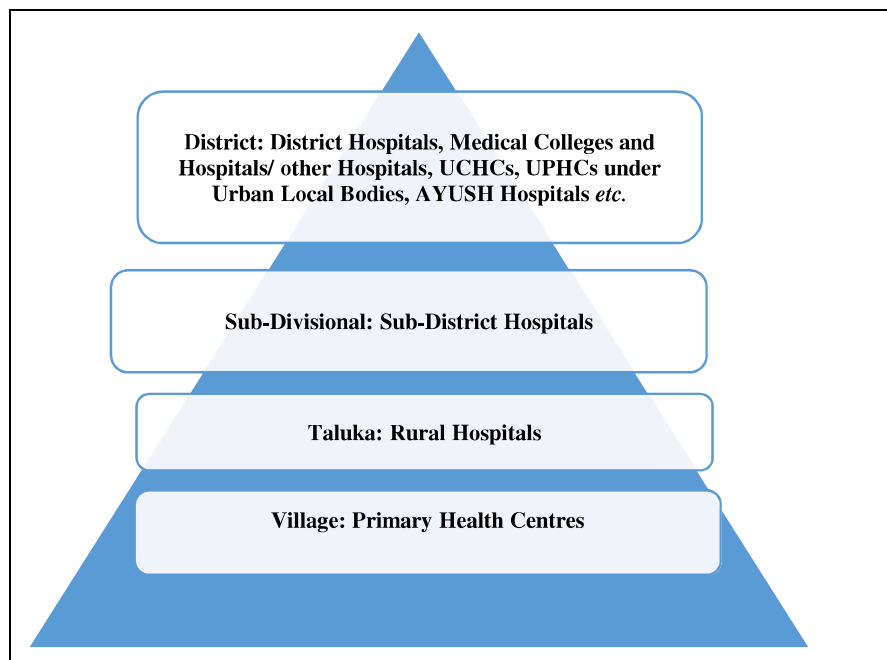
The Performance Audit on “Public Health Infrastructure and Management of Health Services in Maharashtra” was conducted from September 2021 to June 2022 covering the period 2016-17 to 2021-22 through test-check of records at PHD and MEDD. Records in the offices as shown in **Table 1.8**, were also test-checked in audit.

Table 1.8: Names of the test-checked offices

Sr. No.	Name of the office
1	Commissioner, Health Services, Mumbai
2	Commissioner, Medical Education and Research, Mumbai
3	Commissioner, Food and Drugs Administration, Mumbai
4	Civil Surgeon and District Health Officer, Zilla Parishad of selected districts
5	Haffkine Bio-Pharmaceutical Corporation Limited, Mumbai
6	Unit offices of selected Municipal Corporations

Nine districts¹¹ (25 per cent) out of 36 districts in the State were selected. Out of these nine districts, seven districts¹² were selected based on a stratified random sampling method. Mumbai City and Mumbai Suburban districts were selected from Thane Circle being the districts with maximum expenditure on health care during 2016-17 to 2021-22. HCIs at various levels covered within the selected districts are shown in **Chart 1.6**.

Chart 1.6: Levels at which Health Care Institutions were covered



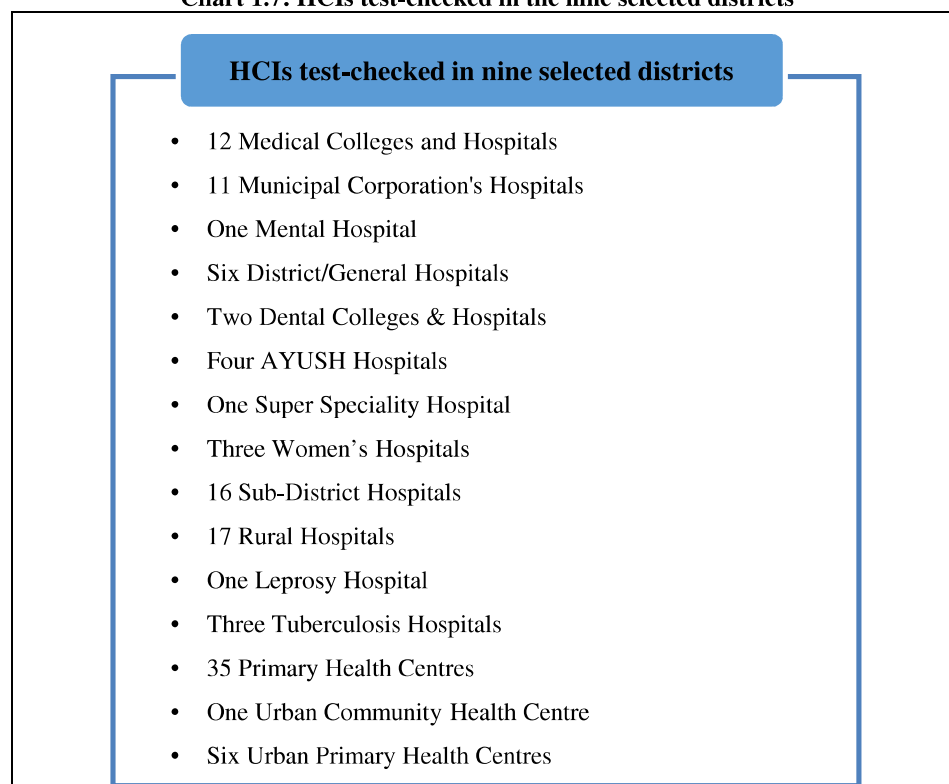
Source: Chart prepared by Audit based on the hierarchy of HCIs in the State

The different categories of HCIs test-checked are shown in **Chart 1.7**.

¹¹ Amravati, Chhatrapati Sambhajanagar (Previously known as Aurangabad), Chandrapur, Jalgaon, Kolhapur, Mumbai city, Mumbai suburban, Nanded and Pune.

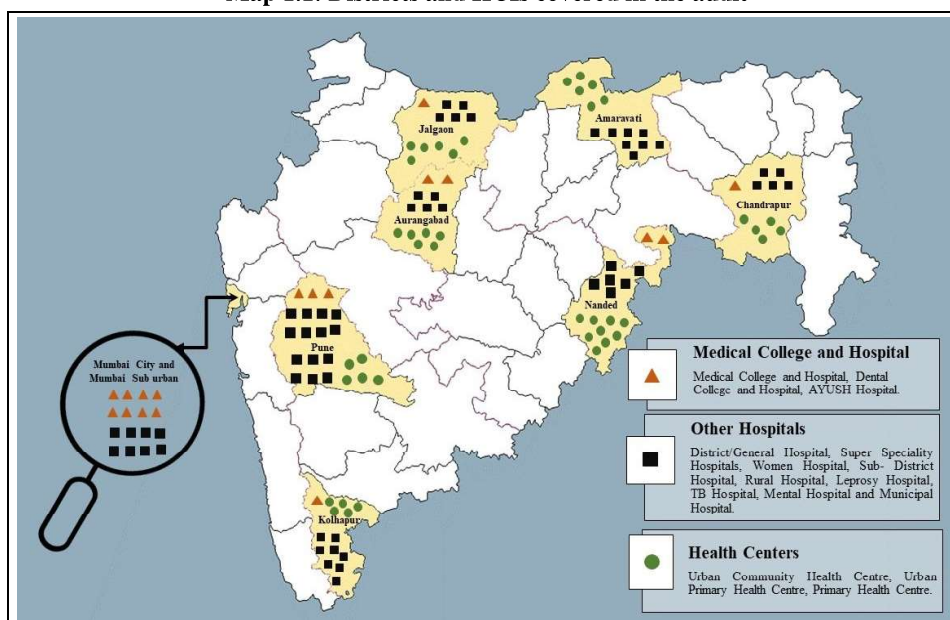
¹² One district each from the seven circles classified by Public Health Department viz., Akola, Chhatrapati Sambhajanagar, Kolhapur, Latur, Nagpur, Nashik and Pune.

Chart 1.7: HCIs test-checked in the nine selected districts



The district-wise list of 119 HCIs test-checked and the methodology adopted for the selection of these HCIs in the selected districts is shown in **Appendix 1.2** and **Appendix 1.3** respectively. The districts and HCIs covered in the audit are shown in **Map 1.1**.

Map 1.1: Districts and HCIs covered in the audit



The audit methodology involved document review, joint physical verification with HCI staff, beneficiary survey and collection of photographic evidence. A survey of 1,973 patients (Inpatient: 690; Outpatient: 1,283) in 84 test-checked

HCI (excluding 35 PHCs) was done to assess the effectiveness of health care services. A survey questionnaire was also issued and collected from 248 doctors in the test-checked HCIs (excluding PHCs). Joint physical verification was also conducted to ascertain the availability and quality of facilities provided in these 84 test-checked HCIs. To check the enforcement of the Maharashtra Nursing Homes Registration Act, as regards registration of hospitals, records of 10 private hospitals in each selected district were checked in the offices of the enforcement authorities *viz.*, District Health Officer, Municipal Corporations and Civil Surgeons.

To ascertain the availability of infrastructure, services and manpower throughout the State, Audit collected further information from HCIs under PHD and MEDD as of May 2023. The information received was analysed and has been incorporated suitably in the Report.

An Entry Conference was held in September 2021 with the Director, Health Services, Mumbai, Director, Medical Education and Research, Mumbai and with the Additional Chief Secretary, PHD and Principal Secretary, MEDD in May 2022, wherein audit objectives, audit criteria, audit scope and methodology were discussed. An Exit Conference was held in January 2023, with the Principal Secretary, PHD, Secretary, MEDD and representatives from UDD wherein the audit findings were discussed and responses have been incorporated suitably in the Report. Replies received (January 2023) from MEDD and UDD have also been appropriately incorporated in the Report. Reply from PHD was awaited (April 2024).

The draft report which was revised was forwarded to Government in August 2023 and February 2024; their reply was awaited (April 2024).

1.15 Structure of Report

The Report structure is detailed below:

Chapter 1	Introduction
Chapter 2	Human Resources
Chapter 3	Healthcare Services
Chapter 4	Availability of Drugs, Medicines, Equipment and Other Consumables
Chapter 5	Healthcare Infrastructure
Chapter 6	Financial Management
Chapter 7	Implementation of Centrally Sponsored Schemes
Chapter 8	Adequacy and Effectiveness of the Regulatory Mechanisms
Chapter 9	Sustainable Development Goal-3

1.16 Acknowledgement

Audit acknowledges the co-operation and assistance extended by the Public Health Department, Medical Education and Drugs Department, Urban Development Department and all the test-checked HCIs in providing records, information and clarifications from time to time for the smooth conduct of audit.

CHAPTER 2

Human Resources

Chapter 2: Human Resources

The State Government did not conduct gap analysis for assessing the requirement of manpower in Health Care Institute as per Indian Public Health Standards. In the primary and secondary healthcare sector, under Public Health Department (PHD), the shortage of doctors, nurses and paramedical staff was 22 per cent, 35 per cent and 29 per cent respectively. 42 per cent of posts of specialist doctors were vacant in the State under the jurisdiction of PHD. Whereas in respect of Women Hospitals under PHD the shortage of doctors, nurses and paramedical staff was 23 per cent, 19 per cent and 16 per cent respectively. The shortage of doctors/specialists, nurses and paramedical staff under the jurisdiction of Medical Education and Drugs Department (MEDD) was 37 per cent, 35 per cent and 44 per cent respectively. The overall shortage of doctors, nurses and paramedics in the State under PHD and MEDD was 27 per cent, 35 per cent and 31 per cent respectively.

The shortage of doctors, nurses and paramedics and others in AYUSH colleges and hospitals was 21 per cent, 57 per cent and 55 per cent respectively.

The Trauma Care Centres under the jurisdiction of PHD and MEDD in the State had 23 per cent and 44 per cent shortage of staff respectively.

Shortages in imparting trainings to doctors, nurses and paramedics under PHD were noticed in seven selected districts.

2.1 Planning and assessment of Human Resources

World Health Report, 2006 published by World Health Organisation (WHO) defined health human resources or health workforce as all people engaged in actions whose primary intent is to enhance health. These human resources include clinical staff such as physicians, nurses, pharmacists, and dentists as well as management and support staff¹³.

The delivery of quality healthcare services in HCIs largely depends on the adequate availability of manpower, especially doctors, nurses, paramedical and other support staff. As per the Indian Public Health Standards, 2012 (IPHS), a gap analysis was to be done for assessing the requirement of manpower. Audit observed that no such gap analysis was done by the GoM. In the absence of gap analysis, the future requirement of human resources was not assessed as evident in shortage of manpower in cadres of doctors, nurses and paramedics.

The Joint Director, Commissionerate of Health Services stated (November 2023) that gap analysis of manpower was in progress at facility level.

¹³ Support staff includes those who do not deliver services directly but are essential to the performance of healthcare systems, such as managers, ambulance drivers, and accountants.

2.2 Manpower in Health Care Institutions

The availability of manpower in the State and test-checked HCIs in selected districts under the jurisdiction of PHD, MEDD and Municipal Corporations is discussed in the succeeding paragraphs. Apart from regular recruitment, GoM also made contractual appointments under the National Health Mission.

2.2.1 Availability of Human resources

The World Health Organisation (WHO) recommended benchmark for doctor-population ratio is 1:1,000 and three nurses and midwives per doctor. As per the benchmark recommended by WHO, the requirement of doctors in Maharashtra was 1,25,411¹⁴. As per records of the Maharashtra Medical Council, 1,71,282 doctors were registered in the State as of March 2022. Accordingly, the doctor-population ratio in the Maharashtra worked out to 1:732 as against the WHO benchmark of 1:1,000. Thus, the State had doctors above the stipulated WHO norms (higher by 37 per cent).

There were 2,18,159 nurses¹⁵ registered in the State against the requirement of 5,13,846¹⁶ nurses for 1,71,282 registered doctors. This reflected 58 per cent shortage of nurses in Maharashtra against the WHO benchmark. The availability of doctors and nurses in the State *vis-à-vis* WHO benchmark is shown in Table 2.1.

Table 2.1: Availability of doctors and nurses in the State *vis-à-vis* WHO benchmark

Category	Projected State population (2022)	Manpower required as per WHO norms	Registered Doctors/Nurses in the State	Excess (+) / Shortfall (-) (per cent)
Doctors	12,54,11,000*	1,25,411	1,71,282#	(+) 45,871 (37)
Nurses		5,13,846	2,18,159**	(-) 2,95,687 (58)

Source: *Comprehensive Note of the Public Health Department (March 2022)

Information (as of March 2022) received from Maharashtra Medical Council

** Information (as of March 2022) received from Maharashtra Nursing Council

2.3 Human resources under Public Health Department

2.3.1 Availability of Human Resources in Primary and Secondary Health Care Institutions

Audit compiled and consolidated the data pertaining to sanctioned strength and persons in position in the cadres of doctors, nurses, and paramedics in District Hospitals, Women Hospitals, Sub-District Hospitals, Rural Hospitals, Primary Health Centers, and Sub-centres, furnished (May 2023) by the District Civil Surgeons and District Health Officers in the State. IPHS recommends the number of doctors, nursing staff and paramedics for District Hospitals, Sub-District Hospitals and Rural Hospitals depending on bed capacity. IPHS also recommends one doctor, three nurses and two paramedics for a PHC and one nurse for a Sub-centre.

Comparison of the requirement of doctors, nursing staff and paramedics as per IPHS *vis-à-vis* the sanctioned strength revealed that the sanctioned strength of doctors was less than the requirement as per IPHS (Table 2.2) by 15 per cent

¹⁴ Requirement of doctors=Projected population 12,54,11,000/1,000 (projected population as of March 2022).

¹⁵ As per records of Maharashtra Nursing Council.

¹⁶ Registered Doctors as of March 2022 (1,71,282) × 3 Nurses per doctor=5,13,846 Nurses.

However, the sanctioned strength of nurses and paramedics was more than the requirement as per IPHS. Comparison of sanctioned strength *vis-à-vis* persons in position in primary and secondary healthcare under PHD showed shortage of 22 per cent, 35 per cent and 29 per cent in the cadre of doctors, nurses and paramedics respectively. The category-wise details are shown in **Table 2.2** and district-wise details of doctors, nurses and paramedics are shown in **Appendix 2.1 A, 2.1 B and 2.1 C** respectively.

Table 2.2: Availability of Human Resources in Primary and Secondary HCIs under PHD *vis-à-vis* requirement as per IPHS and sanctioned strength as of May 2023

Category	Requirement as per IPHS	Sanctioned Strength (SS)	Percentage of shortfall (-)/ Excess (+) <i>vis-à-vis</i> requirement as per IPHS	Persons in Position	Shortfall <i>vis-à-vis</i> SS	Percentage of shortfall <i>vis-à-vis</i> SS
Doctors	8,668	7,381	(-) 15	5,765	1,616	22
Nursing Staff	24,114	26,578	(+) 10	17,314	9,264	35
Paramedics	11,550	15,809	(+) 37	11,282	4,527	29
Total	44,332	49,768	(+) 12	34,361	15,407	31

Source: Information furnished by District Civil Surgeons and District Health Officers

In addition to **Table 2.2**, there were 19 Women Hospitals in Maharashtra functional under PHD. The details of manpower available in these 19 WHs are shown in **Table 2.3**.

Table 2.3: Availability of Human Resources in Women Hospitals under PHD

Category	Sanctioned Strength(SS)	Persons in Position	Shortfall	Percentage of shortfall <i>vis-à-vis</i> SS
Doctors	291	224	67	23
Nursing Staff	1,011	822	189	19
Paramedics	270	228	42	16
Total	1,572	1,274	298	19

Source: Information furnished by Medical Superintendent of respective Women Hospitals

2.3.2 Availability of Specialist Doctors under the jurisdiction of PHD

As per the information furnished by the Director of Health Services, Mumbai there was shortage of specialist doctors¹⁷ under the jurisdiction of PHD. The vacancies in the various cadres of specialist doctors as of March 2023, are shown in **Table 2.4**. District-wise details are shown in **Appendix 2.2**.

IPHS also recommends the number of specialist doctors for district hospitals sub-district hospitals and rural hospitals depending on the bed capacity.

Comparison of the requirement of Specialist Doctors as per IPHS *vis-à-vis* the sanctioned strength revealed that the sanctioned strength of Specialist Doctors was more than the requirement as per IPHS in most of the cadre except in the cadre of Ear Nose Throat, Radiologist, Surgeon and Physician, where the shortage in sanctioned strength as per IPHS was 52 per cent, 10 per cent and 66 per cent respectively as shown in **Table 2.4**.

¹⁷ Specialist doctors are in pay scale S 20 and pay scale S-23 only.

Table 2.4: Availability of Specialist Doctors under the jurisdiction of PHD as of March 2023

Sr. No	Cadres	Requirement as per IPHS	Sanctioned post	Percentage of shortfall (-)/Excess (+) vis-à-vis requirement as per IPHS	Persons in Position	Vacancy	Percentage of vacancy
1	Pediatrician	523	686	(+) 31	425	261	38
2	Gynecologist and Obstetrician	526	751	(+) 43	442	309	41
3	Anesthetist	504	867	(+) 72	435	432	50
4	Ophthalmologist	122	170	(+) 39	120	50	29
5	Orthopedic Surgeon	122	196	(+) 61	163	33	17
6	Ear Nose Throat	122	58	(-) 52	40	18	31
7	Radiologist	122	110	(-) 10	57	53	48
8	Psychiatrist	21	126*	(+) 500	38	88	70
9	Pathologist	50	73	(+) 46	53	20	27
10	Chest and TB	NA	42	-	11	31	74
11	Dermatologist	38	52	(+) 37	19	33	63
12	Surgeon	504	171	(-) 66	80	91	53
13	Physician	507	172	(-) 66	90	82	48
14	Forensic Medicine	9	19	(+) 111	19	0	0
15	Blood Transfusion Officer	NA	37	-	27	10	27
16	Preventive and Social Medicine	NA	112	-	101	11	10
	Total		3,642		2,120	1,522	42

Source: Information furnished by Director of Health Services, Mumbai

NA: Not Available in IPHS

*There are three Regional Mental Hospitals in Maharashtra

As seen from **Table 2.4**, the overall vacancies in various cadres of specialist doctors in the State under the jurisdiction of PHD were 42 *per cent*. The vacancies in the cadre of Psychiatrist, Chest and TB, Dermatologist and Surgeon were more than 50 *per cent*.

As seen from **Appendix 2.2**, total vacancies of specialists in 35 districts ranged between three *per cent* (Jalna) and 74 *per cent* (Ratnagiri). Further, 13 districts had more than 50 *per cent* vacancies.

2.3.3 Contractual manpower under NHM

For implementation of National Health Mission (NHM) schemes, contractual manpower was hired in the State. The availability of manpower on contractual basis in the State under the NHM as of March 2023 is shown in **Table 2.5**.

Table 2.5: Availability of manpower under NHM as on March 2023

Cadre	Sanctioned post	Persons in Position	Vacancy	Percentage of Vacancy
Specialist Doctors	1,755	794	961	55
Medical Officers	5,785	3,907	1,878	32
Administrative Staff	8,349	6,666	1,683	20
Community Health Officers	9,884	8,196	1,688	17
Paramedics	6,522	5,349	1,173	18
Nurses	18,602	15,462	3,140	17
Group “D”	1,479	536	943	64
Total	52,376	40,910	11,466	22

Source: Information furnished by National Health Mission, Maharashtra, Mumbai

As seen from **Table 2.5**, the overall vacancies in various cadres ranged between 17 *per cent* (Community Health Officers and Nurses) and 32 *per cent* (Medical Officers). The percentage of vacancies in the cadre of Specialist Doctors was 55 *per cent*.

2.4 Human Resources under Medical Education and Drugs Department

National Medical Commission (NMC) Norms (Minimum Requirements for Annual MBBS Admission Regulations), 2020 stipulate the number of teaching faculty/doctors to be maintained in the medical colleges based on annual MBBS intake.

A comparison of the requirement of teaching faculty/doctors in medical colleges as per NMC norms *vis-à-vis* the sanctioned strength revealed that as against the requirement of 2,809 teaching faculty/doctors as per NMC, the sanctioned strength of teaching faculty/doctors under the jurisdiction of MEDD was 3,722. Thus, the availability of teaching faculty/doctors under MEDD was more than the requirement.

However, as per the information of sanctioned strength and persons in position in the cadres of teaching faculty/doctors, nurses, and paramedics as of May 2023, furnished by the MEDD, there was a shortage of 37 *per cent*, 35 *per cent*, 44 *per cent* in the respective cadres. The details of the Government medical college and attached hospital-wise sanctioned strength, persons in position and shortages, in the cadres of teaching faculty/doctors, nurses and paramedics are shown in **Appendix 2.3**.

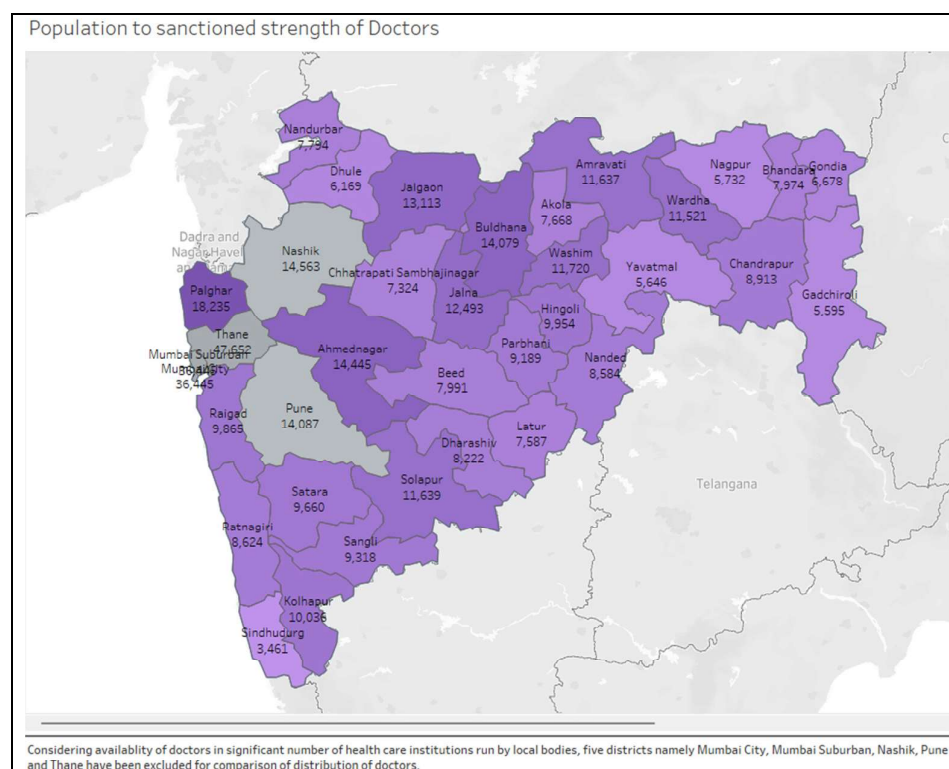
MEDD stated (January 2023) that the requisition for 1,207 posts of Dean, Professor, Associate Professor and Assistant Professor was sent to the Maharashtra Public Service Commission (MPSC). The MPSC had sent recommendations of 785 eligible candidates to the GoM for posting.

The fact, however, remained that the posts were lying vacant.

2.5 Regional disparity in sanction and availability of doctors under PHD and MEDD

Audit noticed wide disparity in sanctioned strength and availability of doctors under PHD and MEDD *vis-à-vis* population across the State as shown in **Map 2.1** and **Map 2.2**.

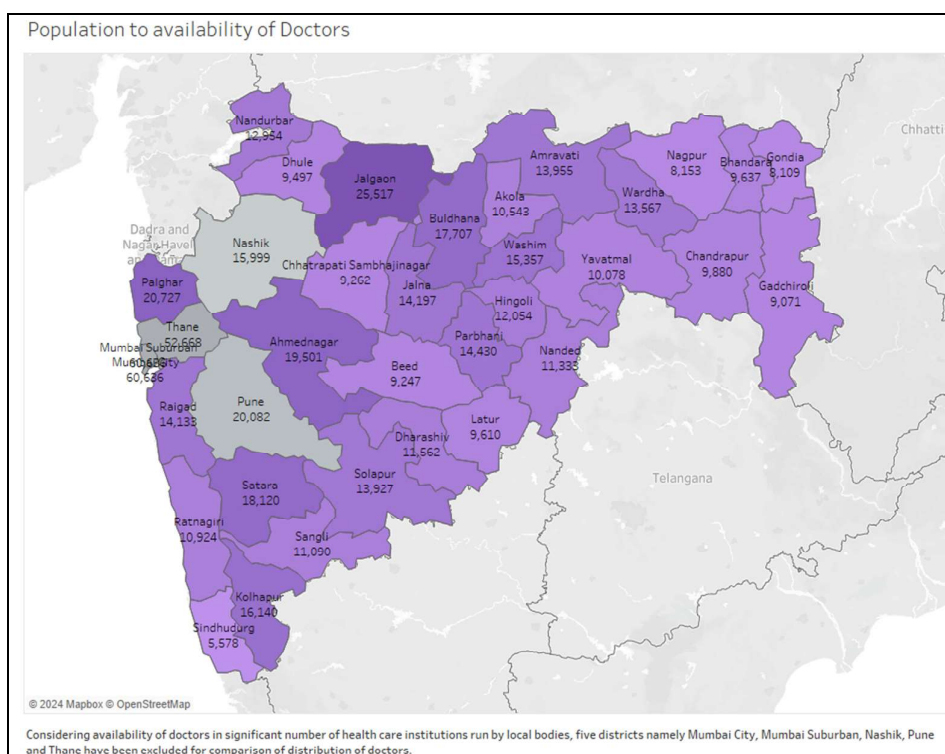
Map 2.1: District-wise ratio of sanctioned strength of doctors under PHD and MEDD to population



Source: Map prepared based on the information furnished by the Director of Health Services and Director of Medical Education and Research

As seen from **Map 2.1**, in Sindhudurg district the ratio of sanctioned post of one doctor to population was 3,461, while in Palghar¹⁸ district, the ratio of sanctioned post of one doctor to population was 18,235.

¹⁸ Mumbai City, Mumbai Suburban, Nashik, Pune and Thane districts have been excluded for comparison of distribution of doctors considering the availability of doctors in significant number of health care institutions run by Local Bodies in these five districts.

Map 2.2: District-wise ratio of available doctors under PHD and MEDD to population

Source: Map prepared based on the information furnished by the Director of Health Services and Director of Medical Education and Research

As seen from **Map 2.2**, in Sindhudurg district the ratio of available doctor to population was 1:5,578, while in Jalgaon¹⁹, it was 1:25,517.

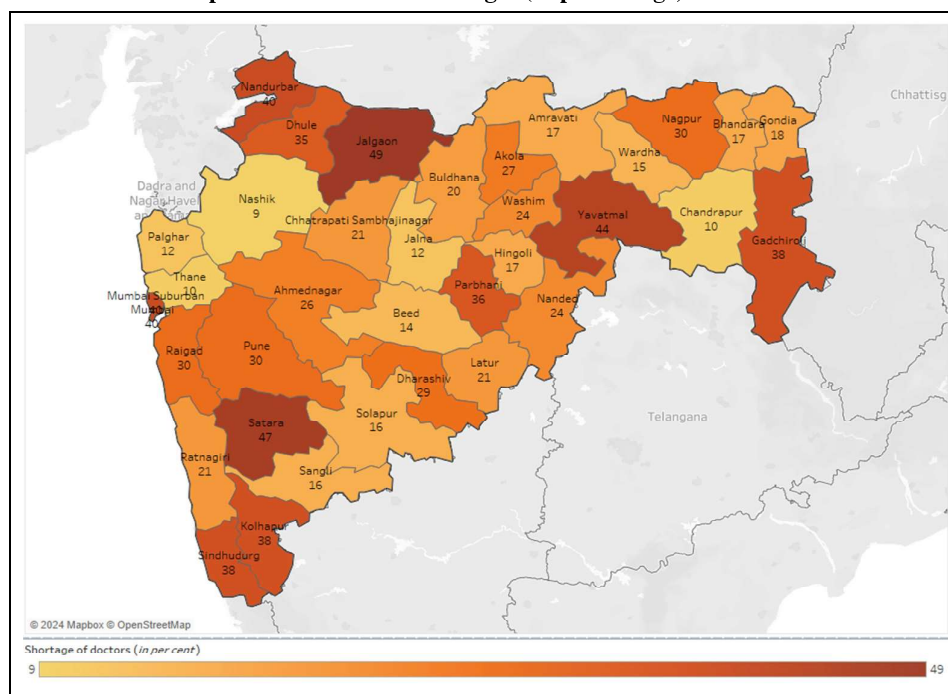
2.6 Regional disparity in shortage of manpower

As per the information furnished by HCIs under PHD and MEDD, there was 27 *per cent* shortage of doctors, 35 *per cent* shortage of nurses and 31 *per cent* shortage of paramedics in the State. District-wise analysis revealed regional disparity in the shortage of manpower.

(a) The shortage of doctors was the highest in Jalgaon (49 *per cent*), Satara (47 *per cent*) and Yavatmal (44 *per cent*) districts while the shortage was lowest at nine *per cent* in Nashik, 10 *per cent* in Chandrapur and Thane and 12 *per cent* in Jalna and Palghar districts, as shown in **Map 2.3**.

¹⁹ Mumbai City, Mumbai Suburban, Nashik, Pune and Thane districts have been excluded for comparison of distribution of doctors considering the availability of doctors in significant number of health care institutions run by Local Bodies in these five districts.

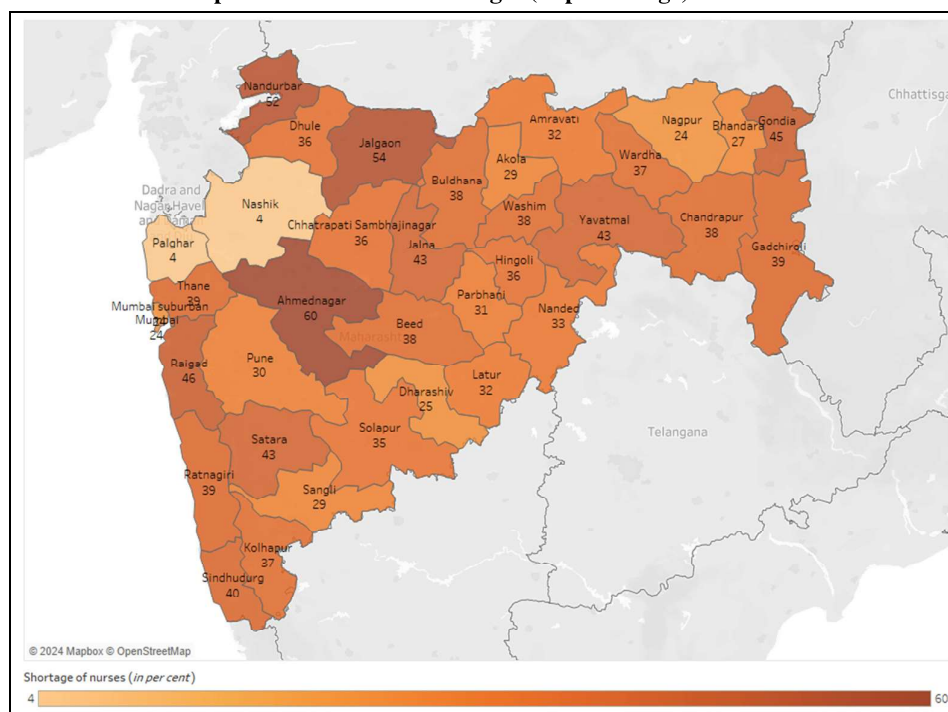
Map 2.3: District-wise shortages (in percentage) of doctors



Source: Map prepared based on the information furnished by the Director of Health Services and Director of Medical Education and Research

(b) The shortage of nurses was the highest in the Ahmednagar (60 per cent), Jalgaon (54 per cent) and Nandurbar (52 per cent) districts while the shortage was lowest in Nashik and Palghar (four per cent) districts, as shown in Map 2.4.

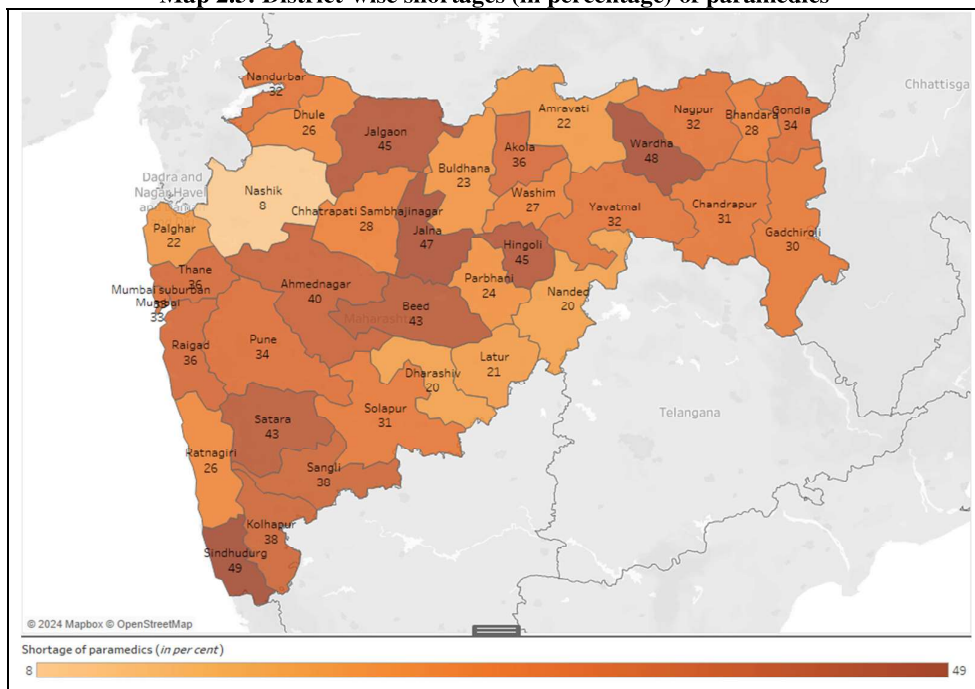
Map 2.4: District-wise shortages (in percentage) of nurses



Source: Map prepared based on the information furnished by the Director of Health Services and Director of Medical Education and Research

(c) The shortage of paramedics was the highest in the Sindhudurg (49 per cent), Wardha (48 per cent) and Jalna (47 per cent) districts while it was lowest at eight per cent in Nashik district, as shown in Map 2.5.

Map 2.5: District-wise shortages (in percentage) of paramedics



Source: Map prepared based on the information furnished by the Director of Health Services and Director of Medical Education and Research

2.7 Human Resources under Municipal Corporations in selected districts

The manpower position in HCIs under the jurisdiction of Municipal Corporations in the selected districts as of March 2022 is summarised in Table 2.6 and details of cadre-wise shortages are shown in Appendix 2.4.

Table 2.6: Availability of manpower in HCIs in test-checked Municipal Corporations

Sr. No	Name of the Municipal Corporation	Sanctioned Strength	Persons in Position	Vacant post	Percentage of vacant post
1	Amravati	85	24	61	72
2	Chhatrapati Sambhajinagar	383	261	122	32
3	Chandrapur	70	70	0	0
4	Jalgaon	240	115	125	52
5	Kolhapur	460	325	135	29
6	Brihanmumbai Municipal Corporation (test-checked hospitals)	10,158	7,015	3,143	31
7	Nanded	177	75	102	58
8	Pune	1,672	810	862	52
9	Pimpri-Chinchwad	839	583	256	31
	Total	14,084	9,278	4,806	34

Source: Information furnished by respective Municipal Corporations

As seen from Table 2.6, as against the sanctioned strength of 14,084 posts in selected districts, 9,278 posts were filled leaving a vacancy of 4,806 posts

(34 per cent) in various cadres. The maximum shortage was in Amravati Municipal Corporation (72 per cent).

As seen from **Appendix 2.4**, the vacancies in the post of Medical Officers (Class I and II), Paramedics and Nursing staff was 43 per cent, 49 per cent and 18 per cent respectively.

2.8 Position of manpower in Trauma Care Centres

2.8.1 Position of manpower in Trauma Care Centres under PHD

PHD, GoM accorded (between 1997 and 2017) approval for the construction of 109 Trauma Care Centres (TCCs). As per the information furnished by PHD, out of 109 TCCs, only 73 TCCs were constructed, of which, 60 TCCs were functional in 26 districts of the State.

As per the information furnished by PHD, as against the sanctioned strength of 852 in the cadre of Anaesthetist, Orthopaedic Surgeon, Medical Officer and Nurses, etc., in these 60 TCCs, the person-in position was 657 leaving vacancies of 195 posts (23 per cent) as of December 2022. Audit further noticed that five TCCs²⁰ were functioning without Orthopedic Surgeon as of December 2022.

2.8.2 Position of manpower in Trauma Care Centres under MEDD

Apart from 109 TCCs under PHD, there were three Level II TCCs under the MEDD at Kolhapur, Nagpur, and Pune.

As per the information furnished by MEDD, 37 posts for each TCC at Pune and Kolhapur and 86 posts for TCC, Nagpur were sanctioned. Audit noticed that against these 37 sanctioned posts, only 11 posts in respect of TCC, Pune and six post in respect of TCC, Kolhapur were filled. In TCC, Nagpur as against 86 sanctioned posts, 73 posts were filled.

Thus, there was shortage of 70 per cent, 84 per cent and 15 per cent of manpower in TCCs at Pune, Kolhapur and Nagpur respectively. The overall shortage of manpower in these TCCs was 44 per cent.

2.9 Position of manpower in AYUSH Colleges and Hospitals

There were 16²¹ AYUSH colleges and hospitals under the control of MEDD as of May 2023. The manpower position in these 16 colleges and hospitals is shown in **Table 2.7**.

Table 2.7: Manpower position in AYUSH colleges and hospitals as of May 2023

Category	Sanctioned Strength	Persons in Position	Vacancy (Per cent)
Doctors	402	317	85 (21)
Nurses	329	142	187 (57)
Paramedics	117	53	64 (55)
Others	948	535	413 (44)
Total	1,796	1,047	749 (42)

Source: Information furnished by Director of AYUSH

²⁰ (i) RH, Bhokar, District Nanded, (ii) SDH, Kalambani, District Ratnagiri, (iii) SDH, Pandharkavada, District Yavatmal, (iv) DH, Pune and (v) DH, Satara.

²¹ Seven AYUSH colleges; seven attached hospitals to these seven AYUSH colleges; one 20 bedded Ayurved hospital, Pune and one Government Homeopathy hospital, Mumbai.

Analysis of data revealed the following:

- There was shortage of doctors in all the 16 AYUSH colleges and hospitals. The percentage of shortages ranged between six *per cent* (Government Ayurved College, Baramati) and 100 *per cent* (four AYUSH hospitals in Jalgaon, Baramati, Pune and Mumbai). In reply, the Director, AYUSH stated (December 2023) that draft recruitment rules for appointment of doctors has been sent to Government for approval and the work in Jalgaon and Baramati AYUSH hospital is being attended by professors and post graduate students of AYUSH colleges.
- There was shortage of nurses in nine AYUSH hospitals. The percentage of shortages ranged from 25 *per cent* (R A Podar Hospital, Mumbai) to 87 *per cent* (Government Ayurved Hospital, Baramati).
- There was shortage of paramedics in 14 AYUSH colleges and hospitals. The percentage of shortages ranged from 14 *per cent* (Government Ayurved College, Nanded) to 100 *per cent* (three AYUSH colleges and three hospitals attached to these three colleges in Baramati and Jalgaon districts).

The details of sanctioned strength, persons in position and vacancies in government AYUSH colleges and hospitals is shown in **Appendix 2.5**.

Recommendation 1: Government may fill up the vacancies in the health sector in a time-bound manner to ensure optimal and qualitative delivery of health services to public. Government may also increase the sanction strength of doctors under Public Health Department as recommended in Indian Public Health Standards.

2.10 Recruitment of manpower

During 2016-17 to 2021-22, 2,730 doctors were recruited under PHD out of which 54 *per cent* (1,479) were recruited during 2021-22. No recruitment was done during 2019-20 and 2020-21.

In MEDD, during 2016-17 to 2021-22, 576 doctors were recruited. No recruitment was done during 2019-20 and 2020-21. Further, based on the advertisement published by Maharashtra Public Service Commission for filling the post of doctors in 2021-22, 1,063 doctors were recruited during 2022-23 and 2023-24. Recruitment of 328 nurses was done during 2018-19 while 23 paramedics were recruited during 2016-17 to 2021-22.

2.11 Training Programmes

Regular training and capacity building activities are essential to enhance the knowledge and skills of medical officers, specialist doctors, para-medics and link workers working in the field of maternal and child health. Training of all the cadres at periodic intervals is an essential component of IPHS.

At the national level, National Rural Health Mission (NRHM) conducted various training programmes. In Maharashtra, one nodal apex training institution²² and seven regional training institutes²³ under the control of PHD

²² Public Health Institute, Nagpur.

²³ Health and Family Welfare Training Centers at Amravati, Chhatrapati Sambhajnagar, Kolhapur, Nagpur, Nashik, Pune and Thane.

were imparting training to the medical and para-medical staff. The State also has well-established District Training Centers functioning at 33 districts and Hospital Training Centers functioning at 23 districts. The details of trainings conducted in seven out of nine²⁴ selected districts under PHD during 2017-18 to 2021-22 are shown in **Table 2.8**.

Table 2.8: Position of district-wise training conducted

Districts	Training Planned	Training conducted	Excess (+)/ Shortfall (-)	Shortfall in training (percentage)
Amravati	110	92	(-) 18	16
Chhatrapati Sambhajnagar	226	140	(-) 86	38
Chandrapur	251	249	(-) 2	1
Jalgaon	376	346	(-) 30	8
Kolhapur	2,151	2,106	(-) 45	2
Nanded	723	201	(-) 522	72
Pune	1,904	1,597	(-) 307	16

Source: Information furnished by District Health Officer, Zilla Parishads of selected districts

As seen from **Table 2.8**, the shortages in imparting training ranged from one *per cent* (Chandrapur) to 72 *per cent* (Nanded).

²⁴ No training was conducted in Mumbai city and Mumbai suburban.

CHAPTER 3

Healthcare Services

Chapter 3: Healthcare Services

Out-patient Department services in hospitals were overburdened with overcrowding of patients and long waiting time for registration.

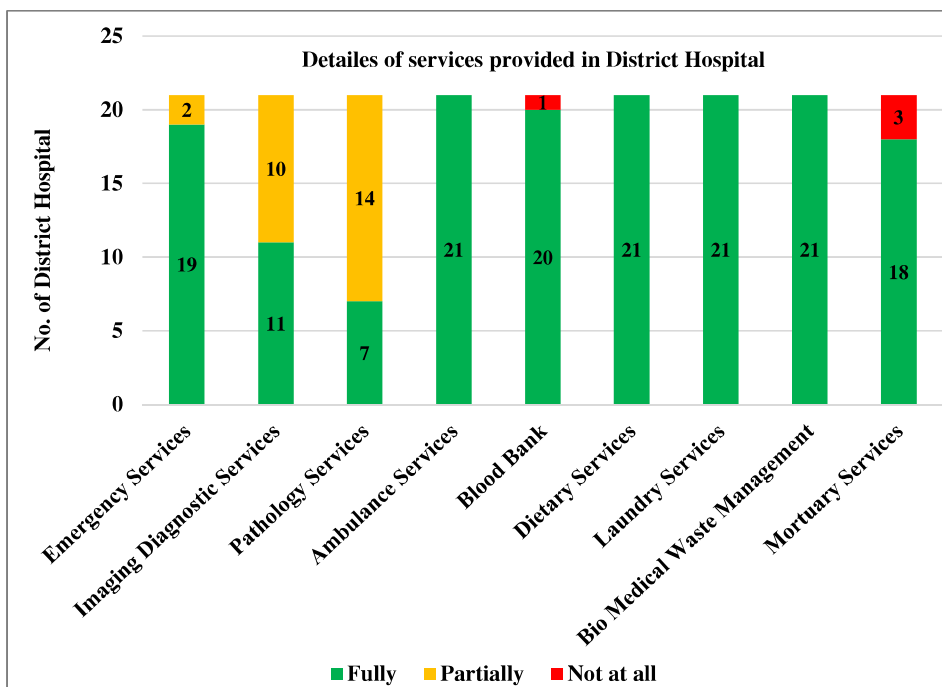
There were shortages of equipment in Trauma Care Centres. X-ray, Mammography and Ultrasonography services were not available in some of the test-checked Health Care Institutions (HCIs). Non-availability of pathology services and shortfall in In-patient Department services and emergency services were noticed. Audit also observed irregularities in outsourcing of dietary services, and non-formation of diet committees in HCIs. Ambulances with basic life support were found to be less than the requirement. There were also shortages in blood bank and transfusion services and blood storage units.

Failure to obtain No Objection Certificate from the Fire Department and non-compliance to fire audit observation exposed the patients and staff to the risk of fire.

3.1 Delivery of Healthcare Services

Delivery of services plays an important role in providing medical services to patients in the HCIs. High-quality healthcare services involve the right care, at the right time and responding to the users' needs and preferences. Healthcare Services provided in HCIs are broadly divided into three categories viz., (a) Line services, (b) Support services and (c) Auxiliary services. Availability of nine healthcare services in the 21 District Hospitals in the State are shown in **Chart 3.1**.

Chart 3.1: Healthcare services available in District Hospitals



Source: Information furnished by Civil Surgeon, District Hospitals

As seen from **Chart 3.1**, out of nine healthcare services, four services namely ambulance, dietary, laundry and bio-medical waste management were available fully in all District Hospitals. Three services namely emergency, imaging diagnostic and pathology were available partially in all District Hospitals. Blood bank service was not available in District Hospital, Dhule while mortuary services were not available in District Hospitals at Chhatrapati Sambhajanagar, Dhule and Nanded. The availability of various healthcare services in test-checked HCIs in selected districts are discussed in succeeding paragraphs.

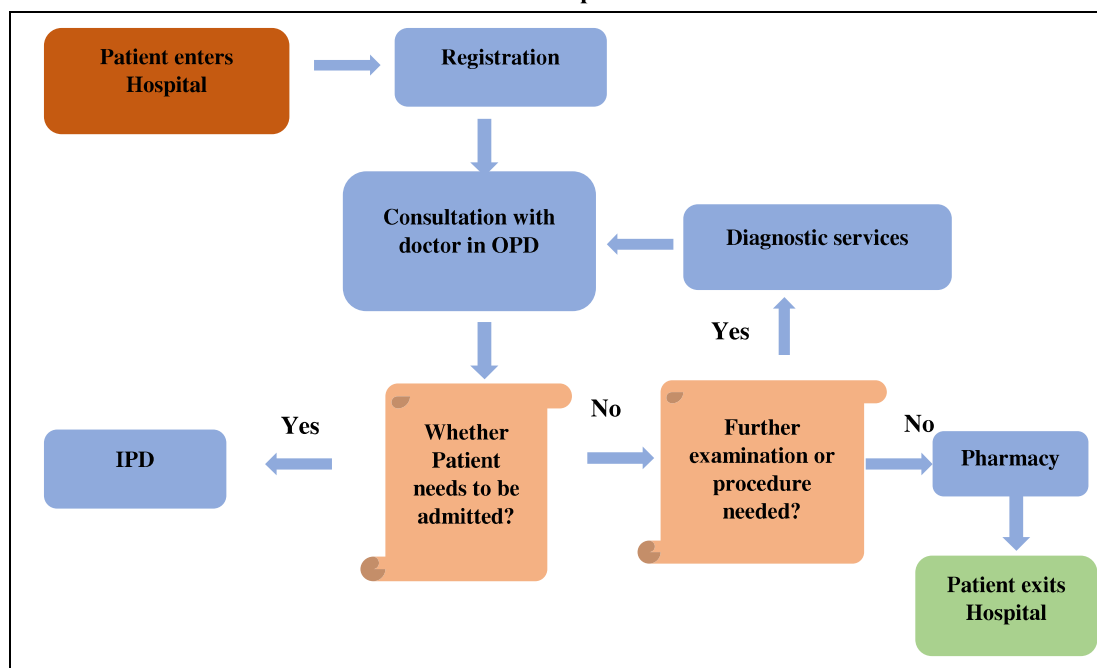
3.1.1 Line Services

Line services in a hospital are directly related to timely delivery of quality healthcare to patients. This includes services like Out-patient Department (OPD), In-patient Department (IPD), Operation Theatre (OTs), Intensive Care Unit (ICUs), Maternity, Blood Bank and Diagnostic services.

3.1.1.1 Out-patient Department Services

To avail services in a hospital, patients have to register at the registration counter of the hospital. They are then examined by the OPD doctors, and further diagnostic tests are prescribed, where necessary, for evidence-based diagnosis. Further, after examination, either drugs are prescribed or admission to IPD is advised based on the diagnosis. The flow of patient services is depicted in **Chart 3.2**.

Chart 3.2: Flow of patient services



Source: Flow chart prepared by the Audit based on the general procedure followed in health care institutions for treatment of the patient

(i) Registration of Patient

Registration is a process of enrolling patients into the records of the hospital to provide services and keep track of various services that are availed by each patient. This is also the first step to generate a medical record of the patient in which all the medical details of the patient are documented.

(a) Patient load on Registration Counter

As per IPHS, at least two counters including one dedicated to women, the elderly and the specially challenged should be provided in RH. Audit noticed that out of 96 RHs in the seven selected districts (Mumbai city and Mumbai suburban districts did not have RHs), 89 RHs (93 *per cent*) had only one registration counter. Audit also noticed that in 41 out of these 89 RHs, the average daily patient load per counter was more than 120²⁵.

Further analysis of data for the year 2022-23 received from 23 HCIs²⁶ (other than RHs) revealed that in 11 HCIs, the patient load per counter/day was less than 120, in five HCIs the patient load per counter/day was between 120 and 240 and in seven HCIs the patient load per counter/day was more than 240.

(b) Time taken in OPD Registration

Registration counter is the first point of contact with the hospital for a patient and is an important component of the hospital experience for patients and their attendants. NHM Assessor's Guidebook, 2013 (Volume-I) specifies a waiting time of three to five minutes for patient registration, thus, requiring an adequate number of counters to be set up.

A survey of 1,283 outpatients was conducted in 62²⁷ out of 119 test-checked HCIs to ascertain the time taken for registration. Analysis of the data revealed that 69 *per cent* of the patients spent more than five minutes in registration.

Due to long-time taken in registration, long queues were observed at the registration counters, which brings out the need to establish more registration counters at the HCIs.



Long queue of patients at the Registration Counter at Sir J.J. Group of Hospitals, Mumbai (24 November 2022)

²⁵ NHM Assessor's Guidebook, 2013 (Volume I) specifies a waiting time of three to five minutes for patient registration. Considering waiting time of three minutes per patient per counter and six hours OPD time, the daily patient load per counter worked out 120 patients per counter per day.

²⁶ DH: four; SDH: nine, WH: two and GMCH: eight.

²⁷ Two Hospitals attached with Ayurved Colleges, 10 Hospitals attached with Medical Colleges, six District/General Hospitals, 11 Municipal Corporations Hospitals, 12 Sub-District Hospitals, 11 Rural Hospitals, one Regional Referral Hospital, one TB hospital, six Urban Public Health Centres and two Women Hospitals.

(ii) Doctor Consultation

(a) Time available for consultation

As per IPHS, the minimum number of patients expected to be checked daily by a Medical Officer is 40. There should be adequate number of doctors so that adequate time and quality treatment can be rendered to patients.

Analysis of the data collected during survey of 248 doctors in 62 out of 119 test-checked HCIs revealed that 26 *per cent* of the doctors attended on an average more than 80 patients per day *i.e.*, double the minimum number of patients by one doctor as per IPHS, 2012.

Further, analysis of data provided by District Civil Surgeons in seven selected districts (Mumbai City and Mumbai Suburban districts did not have RHs) revealed that in four²⁸ out of 96 RHs, the average number of patients checked per doctor per day was more than 80²⁹ during 2022-23 and ranged between 96 patients checked per doctor per day at RH, Dharangaon and 130 patients checked per doctor per day at RH, Nagbhid.

(iii) Other Services

(a) Availability of enquiry counter

As per paragraph 12 and 13 of Chapter V of the Hospital Administrative Manual, Volume I, every hospital, big or small, should have enquiry counter. In big hospitals, a separate clerk is essential to be posted while in small hospitals, the same is to be managed with the available staff and should be functional during the peak hours. The enquiry counter should be able to provide information like location of the various sections of the hospital, location of serious and dangerously ill patients, timetable of the various members of the staff, telephone number of the staff of the hospitals, schedule of fees, *etc.*

Audit observed that in eight³⁰ out of 78 test-checked HCIs (excluding PHCs and UPHCs), enquiry counters were not set up for the benefit of the patients.

(b) Availability of specialist OPD services

According to the IPHS, specialist (having master's degree in respective branches) OPD services such as ENT, General Medicine, Paediatrics, General Surgery, Ophthalmology, Dental, Obstetrics, Gynaecology, Psychiatry, Orthopedics, *etc.*, should be provided in district level hospitals. As per NMC norms, similar specialist OPD services should be provided in Medical College and Hospitals.

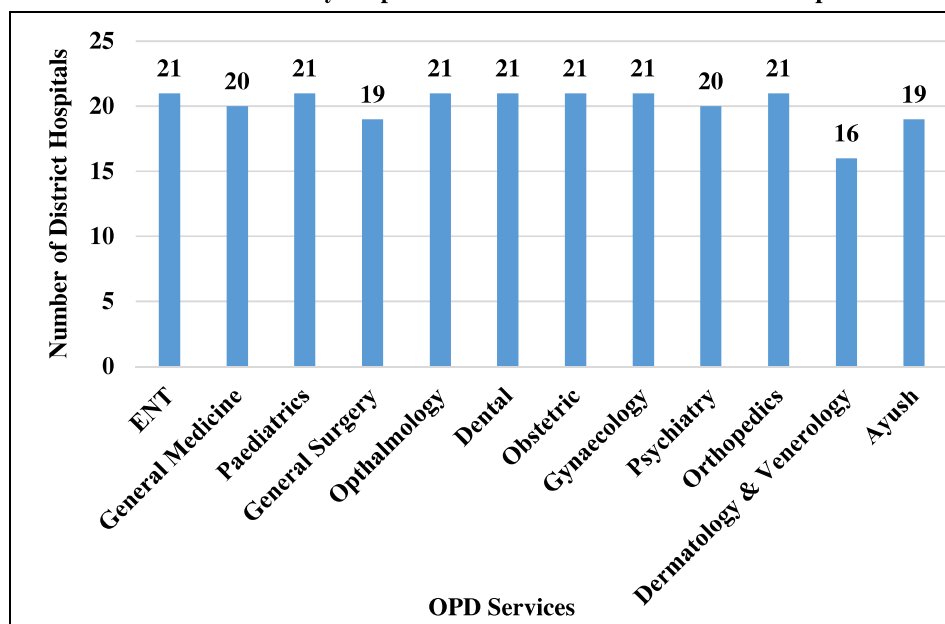
²⁸ RH, Bhadrawati and RH, Nagbhid in Chandrapur district; RH, Dharangaon and RH, Yawal in Jalgaon district.

²⁹ The OPD cases per doctor per annum are: RH, Bhadrawati - 30,422 (Average patient load per day per doctor – 101); RH Nagbhid - 39,079 (Average patient load per day per doctor – 130); RH Dharangaon - 28,676 (Average patient load per day per doctor – 96); and RH Yawal – 35,533 (Average patient load per day per doctor – 118).

³⁰ SDH, Chopda, RHs at Erandol, Pachora and Parola in Jalgaon District and SDHs at Hadgaon, Mukhed, RHs at Naigaon, Bhokar in Nanded District.

Information regarding availability of 12³¹ specialist OPD services obtained from 21 DHS and 11 specialist OPD services (excluding AYUSH service) obtained from 29 hospitals attached to medical colleges is shown in **Appendix 3.1 A** and **B** respectively. Analysis of data for the Districts Hospitals is shown in **Chart 3.3**.

Chart 3.3: Availability of specialist OPD Services in 21 District Hospitals



Source: Information furnished by Civil Surgeon, District Hospitals

- Out of 21 DHs, 14 DHs had all the 12 services. In the remaining seven DHs, shortfall in specialist OPD services was noticed in Dhule (three services), Chhatrapati Sambhajnagar, Nanded and Ratnagiri (two services each) and Buldhana, Hingoli and Wardha (one service each).
- Out of 25 Government Medical Colleges Hospitals (GMCHs)³², 20 GMCHs provided all 11 services. In remaining five GMCHs, the services provided was ranged between six services (Dr. Babasaheb Ambedkar Hospital and Research Centre, Nagpur) and ten services (Government Medical College Hospital, Chhatrapati Sambhajnagar and Government Medical College Hospital, Pune).

Further, PHD, GoM prescribed six services (Medicine, General Surgery, Gynaecology, Paediatric, X-ray and Anaesthesia) for Women Hospitals (WHs). Audit analysed the availability of five services (excluding Anaesthesia which is associated with other services) in WHs. The information regarding availability of five speciality OPD services obtained from 19 WHs in the State as of May 2023 is shown in **Appendix 3.1 C**. Audit noticed that out of 19 WHs, only

³¹ ENT, General Medicine, Paediatrics, General Surgery, Ophthalmology, Dental, Obstetrics, Gynaecology, Psychiatry, Orthopaedics, Venereology and Dermatology and AYUSH.

³² Data pertaining to two hospitals viz., Cancer Hospital, Chhatrapati Sambhajnagar and Super Speciality Hospital, Nagpur were excluded as they provide specialised services. Whereas two hospitals viz., Women Hospital, Yavatmal attached to Government Medical College, Yavatmal provide services related to women and Cama and Albless Hospital, Mumbai attached to Grant Medical College, Mumbai provide services related to women and child.

three WHs provided all the five services. Paediatric service was provided in 18 WHs (WH, Buldhana did not provide Paediatric service). WHs at Hingoli, Nashik, Sindhudurg and Washim did not have X-ray services. General Medicine service was not available in 12 WHs and General Surgery service was not available in 16 WHs.

In addition to the above, scrutiny of information furnished by 33 test-checked RHs and SDHs revealed the following:

- 11 (33 *per cent*) HCIs did not provide General surgery.
- 10 (30 *per cent*) HCIs did not provide Dental service.
- Eight (24 *per cent*) HCIs did not provide General medicine services.
- Five (15 *per cent*) HCIs did not provide AYUSH services.

3.1.1.2 In-Patient Department Services

In-patient department (IPD) services is provided to patients staying in the hospital for one or more nights.

(i) IPD services

(a) IPHS recommended 21 types of IPD wards in each DHs. The number of beds in all the wards would be determined based on the bed capacity of each hospital. There were four DHs in four out of nine selected districts (Chandrapur, Jalgaon, Kolhapur, Mumbai City and Mumbai Suburban districts did not have DH). Scrutiny revealed that as against the recommended 21 IPD wards, (i) DH, Amravati did not have eight wards, (ii) DH, Chhatrapati Sambhajinagar did not have three wards, (iii) DH, Nanded did not have 14 wards and (iv) DH, Pune did not have three IPD wards. Audit further noticed that the dialysis unit was available only in DH, Pune.

(b) As per IPHS, services such as emergency, minor surgery, ante-natal care, intra-natal care, post-natal care, newborn care, Medical Termination of Pregnancy (MTP), tubectomy, vasectomy, *etc.*, were to be provided in PHCs. The availability of these services in 33³³ out of 35 test-checked PHCs is shown in **Appendix 3.2**.

As seen from **Appendix 3.2**, emergency, ante-natal and post-natal care services were available in all the 33 PHCs whereas MTP service was available only in seven out of 33 PHCs.

(ii) Bed Occupancy Rate

Bed Occupancy Rate (BOR) is average occupancy of hospital beds within a given year. It is an indicator of the productivity of the hospital services and is measure to verify whether the available infrastructure and processes are adequate for delivery of health services.

As per NITI Aayog's Report on best practices in the performance of District Hospitals, a high BOR is an indicator of health system under pressure. The Report states that hospitals cannot operate at 100 *per cent* occupancy, as spare bed capacity is needed to accommodate variations in demand. Lack of available

³³ PHC, Rohi-Pimpalgaon, District Nanded; PHC, Rajgurnagar, District Pune were under renovation.

beds increase delays in emergency departments cause patients to be placed on clinically inappropriate wards and increase the rate of hospital-acquired infections. This also puts staff under pressure to free up beds that can pose a risk to patient safety.

Similarly, the Report also states that very low BOR (<42 *per cent*) at primary healthcare level indicates lack of medically trained personnel, irregular supply of drugs and other medical supplies and a complete breakdown in the transfer and referral system.

As per IPHS, the BOR of RHs was expected to be at least 60 *per cent* while the expected BOR for District Hospital was 80 *per cent*.

- Analysis of BOR of 96 RHs in seven selected districts (Mumbai City and Mumbai Suburban districts did not have RHs) revealed that in 2021-22, 83 RHs (86 *per cent*) had BOR less than 60 *per cent*. In 55 RHs (70 *per cent*) out of 83 RHs, the BOR was less than 42 *per cent*.
- In all the four³⁴ test-checked DHs in nine selected districts, the BOR was less than 80 *per cent*. In one WH each at Amravati district and Baramati, District Pune, the BOR was 156 *per cent* and 119 *per cent* respectively during the year 2021-22.

Recommendation 2: Government may ensure that specialist services such as general medicines, general surgeries, dental services, etc., are provided in all the Health Care Institutions as per Indian Public Health Standards.

3.1.1.3 Emergency Services

(i) Casualty and Emergency Services

As per IPHS, Casualty and Emergency Services are required in all DHs. Also, as per National Medical Commission (NMC) norms, Casualty and Emergency Services are required in all teaching hospitals.

Analysis of data of 10 services³⁵ required under Casualty and Emergency Services and its availability in 21 DHs and 29 hospitals attached to medical colleges in the State as of May 2023, is shown in **Appendix 3.3 A and B** respectively.

Analysis of data revealed the following:

- Out of 21 DHs, emergency laboratory, mobile x-ray laboratory/plaster room in accident and emergency service were not available in DH, Chhatrapati Sambhajanagar. The trauma ward, treatment of assault injuries, blood bank and mobile X-ray laboratory/plaster room in accident and emergency service were not available in DH, Dhule.
- All 10 services were provided in 19 out of 28 hospitals attached to medical colleges (one hospital³⁶ was not providing IPD services). WH, Yavatmal

³⁴ District Hospital, Amravati, District Hospital Chhatrapati Sambhajanagar, District Hospital Nanded, and District Hospital Pune.

³⁵ emergency OT, emergency ward, trauma ward, triage process, emergency laboratory, separate provision for examination of rape/sexual assaults victims, disaster management plan in emergency ward, treatment of assaults, blood bank in close proximity to emergency, mobile X ray laboratory/plaster room in accident and emergency service.

³⁶ Dr. Babasaheb Ambedkar Hospital and Research Centre, Nagpur.

provided only two services viz., emergency laboratory and blood bank in close proximity to emergency. Further, trauma ward and triage procedure were not available in GMC&H, Baramati, District, Pune.

(ii) Operation Theatre

Operation Theatre (OT) is an essential service required to be provided to the patients. IPHS prescribe OT for elective major surgeries, emergency services and Ophthalmology/ENT for district hospitals. Major OT and emergency OT are also required to be available in Sub-District Hospitals. Further, IPHS provides that while planning the DHs for more than 200 beds, provision of one OT for every 50 general in-patient beds and one OT for every 25 surgical beds should be considered. OT should be equipped with all required instruments.

Audit noticed that OTs were available in all 35 test-checked hospitals (MCHs, DHs, SDHs and WHs).

Audit analysed the availability of 12 surgical procedures (Hernia, Hydrocele, Appendicitis, Haemorrhoids, Fistula, Intestinal Obstruction, Haemorrhage, Nasal packing, Tracheostomy, Foreign body removal, Fracture reduction and putting splints/plaster cast) in test-checked HCIs in nine selected districts as of May 2023.

Analysis revealed the following:

- i) All 12 surgical procedures were provided in 14 (four DHs and 10 GMCH) out of 15 HCIs in nine selected districts and one HCI (GMCH, Baramati in Pune district) did not provide surgical procedures for haemorrhage.
- ii) The average number of surgeries done per surgeon per year in respect of four DHs (Amravati, Chhatrapati Sambhajnagar, Nanded and Pune) and 11 MC&Hs in the nine selected districts are shown in **Appendix 3.4**. As seen from **Appendix 3.4**, the average number of surgeries done per surgeon per year in respect of four DHs (Amravati, Chhatrapati Sambhajnagar, Nanded and Pune) in the nine selected districts ranged between 86 (Nanded) and 260 (Amravati) during 2022-23. While in the 11 GMCH, the average number of surgeries done per surgeon per year ranged between 28 (GMCH, Baramati) and 984 (Sassoon General Hospital, Pune).

(iii) Availability of equipment in Trauma Care Centre

Trauma Care Centre (TCC) should be equipped and staffed to provide care for patients suffering from major traumatic injuries due to motor vehicle accidents or wounds. It is an accepted strategy of trauma care that if basic life support, first aid and replacement of fluids can be arranged within the first hour of the injury (the Golden Hour), lives of many of the accident victims can be saved. The critical factor for this strategy is to provide initial stabilisation to the injured within the golden hour.

As per the Operational Guidelines for setting up trauma care facilities issued by GoI, essential equipment such as CT scan, Mobile X-ray, Defibrillator, Multiparameter monitor, Suction machine and Ventilator should be available.

Out of 119 test-checked HCIs, 11 HCIs were having 11 TCCs. Audit analysed the availability of 10 essential equipment in these 11 TCCs as of February 2024, which is shown in **Table 3.1**.

Table 3.1: Availability of essential equipment in TCCs in the test-checked HCIs

Sr. No.	Name of essential equipment	Number of TCCs in which equipment was available, not available and available but shortage		
		Available	Not Available	Available but shortage
1	ICU Bed	10	1	-
2	Ultrasonography (Trolley based)	8	3	-
3	100 MA Portable X-ray Machine	11	-	-
4	OT Table-3 segment, Translucent top with Orthopaedic attachment	8	2	1
5	Suction Machine	7	-	4
6	Ventilator with high end compressor	10	1	-
7	Anaesthesia Machine with Monitor Parameters: Agent monitoring, NIBP, SPO2, ET CO2, ECG, Temp, IBP	7	1	3
8	ABG Machine - hand held Analyser	7	4	-
9	Defibrillator with Monitor (Parameters: NIBP, ECG, SPO2, NIBP, ATCO2)	7	1	3
10	Monitor (Large screen with ECG, SPO2, NIBP, ATCO2)	9	1	1

Source: Information furnished by TCCs

As seen from **Table 3.1**, ICU bed was not available in TCC at RH, Bhokar. ABG Machine-hand held Analyser was not available in four TCCs³⁷, Ultrasonography (Trolley based) was not available in three TCCs³⁸, OT Table- 3 segment was not available in two TCCs³⁹.

The TCC wise availability of the 10 essential equipment in five out of 11 TCCs (in six TCCs all the 10 essential equipment was available) revealed that in TCC at RH, Bhokar, six (60 *per cent*) out of the 10 equipment was not available while in TCC at SDH, Shillod, four (40 *per cent*) out of the 10 equipment was not available (**Appendix 3.5**).

3.1.1.4 Maternity services

(i) Antenatal Care

Antenatal Care (ANC) to pregnant women requires consideration of diet, lifestyle and drug therapies to achieve a good foetal outcome with minimal maternal morbidity and mortality. Good ANC reduces the risk of childbirth complications. Guidelines for Antenatal Care and Skilled Attendance at Birth issued (2010) by the Ministry of Health and Family Welfare, GoI aimed to provide four ANC to all pregnant women comprising of investigations like haemoglobin, blood grouping, urine examination, administration of two doses of Tetanus Toxoid (TT) and supply of 100 Iron Folic Acid (IFA) tablets. The first ANC checkup was to be provided within 12 weeks, second within 14-26 weeks, third within 28-34 weeks and fourth checkup within 36 weeks up to term of pregnancy to monitor the progress.

³⁷ TCCs at SDH Sillod, SDH Warora, RH Bhokar, and GMCH Jalgaon.

³⁸ TCCs at SDH Sillod, SDH Warora, GMCH, Jalgaon.

³⁹ TCCs at SDH Sillod and RH Bhokar.

The details of ANC checkup done, TT dose/booster administered and IFA tablet supplied along with the pregnant women registered for ANC in the State and selected districts during 2017-18 to 2021-22 is shown in **Table 3.2**.

Table 3.2: Details of Antenatal care checkup, TT and IFA tablet provided to pregnant women in the State and selected districts during 2017-18 to 2021-22

Selected District	Total No. of pregnant women who registered for ANC	Total No. of pregnant women who did not receive four ANC checkup (per cent)	Total No. of pregnant women who did not receive two dose of TT and TT booster (per cent)	Total No. of pregnant women who did not receive IFA tablets (per cent)
Amravati	234404	28567 (12)	11580(5)	27054(12)
Chhatrapati Sambhajnagar	394848	5650 (1)	4185(1)	0(0)
Mumbai City and Mumbai Suburban	1012010	227465 (22)	209682(21)	193859(19)
Chandrapur	163895	0 (0)	5400(3)	1020(1)
Jalgaon	406836	32224 (8)	19424(5)	10910(3)
Kolhapur	314253	7779 (2)	1699(1)	262(0)
Nanded	335606	18212 (5)	5003(1)	14634(4)
Pune	975439	28241(3)	149017(15)	76725(8)
Overall State	10437858	807990(8)	737717(7)	633566(6)

Source: Data furnished by State Family Welfare Bureau, Pune

As seen from **Table 3.2**, the overall shortfall in ANC checkup, providing TT dose/booster and IFA tablets in the State was eight *per cent*, seven *per cent* and six *per cent* respectively, during 2017-18 to 2021-22.

The shortfall in ANC checkup in selected districts ranged from one *per cent* (Chhatrapati Sambhajnagar district) to 22 *per cent* (Mumbai City and Mumbai Suburban districts) except Chandrapur district. The shortfall in providing TT dose/booster in selected districts ranged from one *per cent* (Chhatrapati Sambhajnagar, Kolhapur and Nanded districts) to 21 *per cent* (Mumbai City and Mumbai Suburban districts). The shortfall in providing IFA tablets in selected districts ranged from one *per cent* (Chandrapur district) to 19 *per cent* (Mumbai City and Mumbai Suburban districts) except Chhatrapati Sambhajnagar and Kolhapur districts.

(ii) Immunisation and Vaccination to Newborns

Under the programme of Immunisation and Vaccination, newborns are to be administered doses of three vaccines viz., Oral Polio Vaccine (OPV), Bacillus Calmette–Gurien (BCG) and Hepatitis ‘B’ as birth dose.

The percentage of newborns vaccinated during 2017-18 to 2021-22 in the State and selected districts is shown in **Table 3.3**.

Table 3.3: The percentage of newborns vaccinated in the State and selected districts during 2017-18 to 2021-22

Selected districts	Percentage of new born vaccinated		
	BCG vaccine	OPV	Hepatitis B vaccine
Amravati	100	90	48
Chhatrapati Sambhajnagar	100	100	94
Mumbai City and Mumbai Suburban	100	100	95
Chandrapur	100	88	78
Jalgaon	100	94	50
Kolhapur	100	100	65
Nanded	99	98	73
Pune	100	89	81
Overall State percentage	100	94	66

Source: Data furnished by State Family Welfare Bureau, Pune

As seen from **Table 3.3**, the percentage of newborn who received BCG vaccine, OPV and Hepatitis 'B' in the State during 2017-18 to 2021-22 was 100 *per cent*, 94 *per cent* and 66 *per cent* respectively.

In selected districts, the percentage of newborn who did not receive Hepatitis B vaccine ranged from five *per cent* (Mumbai City and Mumbai Suburban districts) to 52 *per cent* (Amravati district). The percentage of OPV not given to newborns ranged from two *per cent* (Nanded district) to 12 *per cent* (Chandrapur district) except Chhatrapati Sambhajnagar, Mumbai City, Mumbai Suburban and Kolhapur districts.

3.1.1.5 Blood Bank

As per IPHS, all HCIs having more than 100 beds are required to have Blood Bank and Transfusion Services. Further, blood storage units are required in all Rural Hospitals. Audit noticed the following:

- Nine (32 *per cent*) out of 28 test-checked HCIs having more than 100 beds did not have Blood Bank and Transfusion Services as of July 2022.
- All the 17 test-checked Rural Hospitals did not have blood storage units as of June 2022.

3.1.1.6 Imaging and Diagnostic Services

Diagnostics are an integral part of the health care system and provide information needed by service providers to make informed decisions about care provision related to prevention, screening, detection, treatment, and management. It includes the clinical services of Radiology, Pathology and Laboratory.

As per IPHS, each District Hospital laboratory should be able to perform all tests required to diagnose epidemics or important diseases from the viewpoint of public health.

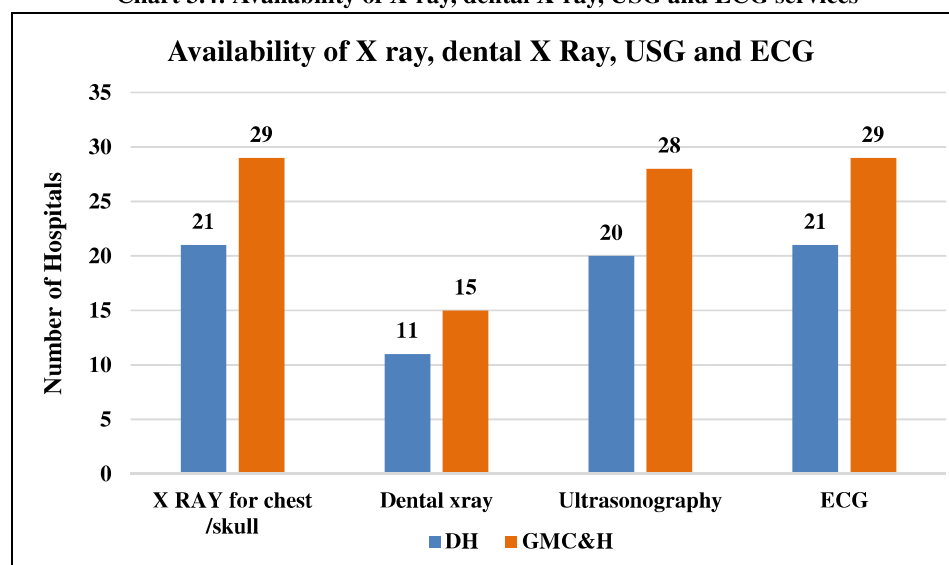
(i) Radiology and Imaging Services

According to IPHS and NMC norms, radiology diagnostics includes, (a) X-ray, (b) Barium test, (c) Miniature mass radiographs (chest), (d) Hysterosalpingogram, (e) Dental X-ray, and (f) Ultrasonography.

(a) **Availability of X-ray, Ultrasonography and Electrocardiogram services in HCIs**

Four services, X-rays (for chest, skull, spine, abdomen and bones), Dental X-ray, Ultrasonography (USG) and Electrocardiogram (ECG) facilities are required in the HCIs (DHs, GMC&Hs, SDHs and RHs). Information obtained from 21 DHs and 29 hospitals attached to medical colleges in the State as of May 2023 is shown in **Appendix 3.6 A** and **B** respectively. Availability of these four services in DHs and GMC&Hs is graphically represented in **Chart 3.4**.

Chart 3.4: Availability of X-ray, dental X-ray, USG and ECG services



Source: Information furnished by Civil Surgeon, District Hospitals and Dean, Government Medical Colleges

Analysis of data revealed the following:

- All Imaging and Diagnostic Services were available in 11 out of 21 DHs. In 10 DHs, the Dental X-ray facility was not available, whereas the USG service and dental X-ray service were not available in DH, Nanded.
- All four services were available in 15 out of 29 GMC&Hs. In the remaining 14 GMC&Hs, the shortage in services provided ranged from one service to two services. Dental X-ray service was not available in 14 GMC&Hs⁴⁰. Ultrasonography service was not available in GMC&H, Dharashiv (previously known as Osmanabad).

Scrutiny in 33 test-checked RHs and SDHs revealed the following:

- X-ray facility was not available in two test-checked HCIs (RH, Shikrapur, Pune: since December 2015; RH Erandol, Jalgaon: since August 2021) due to non-posting of X-ray technicians.
- Dental X-ray facility was not available in 21 test-checked HCIs (RHs and SDHs).

⁴⁰ In nine hospitals attached to four Government Medical Colleges, though the dental service was not available, the same was available in other hospitals attached to these four Government Medical Colleges.

(b) Availability of services of Mammography and MRI

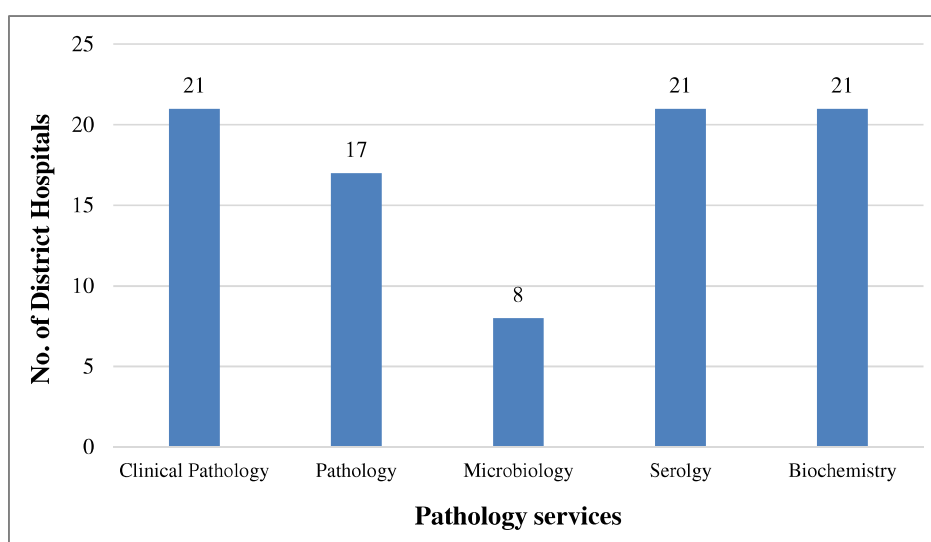
According to IPHS, a mammography unit and preferably MRI facilities were required in HCIs having more than 300 beds. Audit scrutiny revealed the following:

- Mammography unit was not available in six⁴¹ (27 *per cent*) out of 22 test-checked HCIs having more than 300 beds as required.
- MRI scan facility was not available in three⁴² (14 *per cent*) out of 22 test-checked HCIs having more than 300 beds as preferable.

(ii) Pathology Services**(a) Availability of pathology services**

The District Hospital Laboratory was required to serve the purpose of a public health laboratory and be able to perform all tests required to diagnose epidemics or important diseases. As per IPHS, DHs are required to perform clinical pathology⁴³, pathology⁴⁴, microbiology⁴⁵, serology⁴⁶ and biochemistry⁴⁷ tests. The availability of pathology services in 21 DHs as of May 2023 is graphically represented in **Chart 3.5**.

Chart 3.5: Availability of Pathology services in DHs



Source: Information furnished by Civil Surgeon, District Hospitals

⁴¹ DH, Amravati, GMCH, Jalgaon, Chhatrapati Pramilaraje Hospital, Kolhapur, DH, Pune and Yashvantrao Chavan Memorial Hospital, Pimpri-Chinchwad Municipal Corporation, Pune.

⁴² DH, Amravati, Rajawadi Hospital, Mumbai and Chhatrapati Pramilaraje Hospital, Kolhapur.

⁴³ Clinical pathology is diagnostic analysis of blood, urine, stool, cerebrospinal fluids *etc.*

⁴⁴ Pathology includes diagnostic analysis relating to PAPSMEAR, Sputum and histopathology.

⁴⁵ Microbiology test helps in finding disease causing microorganisms in blood, serum, tissues, urine, *etc.*

⁴⁶ Serology is diagnostic analysis of antibodies in the blood serum.

⁴⁷ Biochemistry test measures the concentration of certain chemical in blood sample which may include electrolyte, fats, proteins, glucose, *etc.*

As seen from **Chart 3.6**, clinical pathology, serology and biochemistry services were available in all 21 DHs, while pathology and microbiology services were not available in four DHs and 13 DHs respectively.

Audit further noticed that out of the 29 hospitals attached to medical colleges under MEDD, facilities for all five tests were available in 21 hospitals attached to medical colleges as of May 2023. While in the remaining nine hospitals attached to medical colleges, services not available ranged between one service and four services as shown in **Table 3.4**.

Table 3.4: Non-availability of services

Pathology services	Name of HCIs
Clinical Pathology	Super Speciality Hospital, Nagpur
Pathology	Women Hospital, Yavatmal and Government Medical College Hospital, Nandurbar
Microbiology	G. T. Hospital, Mumbai and Cama & Albless Hospital, Mumbai, Government Medical College Hospital, Dharashiv and Women Hospital, Yavatmal
Serology	Dr. Babasaheb Ambedkar Hospital and Research Centre, Nagpur, Super Speciality Hospital, Nagpur and Women Hospital, Yavatmal
Bio-chemistry	Government Medical College Hospital, Satara, Super Speciality Hospital, Nagpur and Women Hospital, Yavatmal

Source: Information furnished by Dean, Government Medical Colleges

Reply of Government was awaited (April 2024).

(b) Absence of quality assurance of pathology services

As per the IPHS, external validation of lab reports was required to be done on regular basis. Audit noticed that 34 out of 78 test-checked HCIs (excluding PHCs and UPHC) did not have any system for external quality assessment for the pathological tests done by the HCIs.

Recommendation 3: Government may ensure that essential radiology services such as X-ray, Ultrasonography and Mammography are made available in Health Care Institutions as per Indian Public Health Standards.

3.1.2 Support Services

Support services are not directly related to patient care but contribute to patient management in HCIs. These services aid the line departments in providing a safe and sterile environment in HCIs and include services like Oxygen service, Dietary service, Laundry service, Bio-medical Waste Management service, Ambulance service and Mortuary service.

3.1.2.1 Dietary Services

Diet plays an important part in therapeutics, especially in cases of deficiencies, general debility, anemia, nutritional diseases and also in respect of patients admitted in hospitals for some weeks. The Medical Officers have to pay as much attention to the selection and prescription of diets as they do for prescription of medicines.

The IPHS stipulates that apart from the normal diet, the food supplied should be patient specific such as diabetic, semisolid and liquid and distributed in a covered container. The quality of diet should be checked by a competent person on a regular basis.

NHM Assessor's Guidebook envisages that the health facility must have standard procedures for the preparation, handling, storage and distribution of food as per the requirement of diet by patients. It is, therefore, imperative that each hospital is equipped with its own in-house kitchen for the preparation of meals as per the specific dietary requirements of patients.

(i) Formation of Diet Committees in Hospitals

According to the Hospital Administration Manual, Government of Maharashtra, 1976, Diet Committees have to be formed in every HCIs comprising of Resident Medical Officer and Matron, *etc.*

Out of 119 test-checked HCIs, 78 test-checked HCIs were providing dietary service. Audit scrutiny revealed that in seven⁴⁸ (nine *per cent*) out of 78 test-checked HCIs, diet committees were not formed.

(ii) Availability of patient-centric diets in SDHs/RHs

The IPHS mentioned patient-centric diets, such as diabetic, semi-solid and liquid diets in addition to the normal diet. However, scrutiny revealed that specific diets were not being provided in the test-checked SDHs and RHs. All patients were given similar diets thereby ignoring the distinctive dietary requirements of different categories of patients. Further, only standard menu for diet was included in the contract for providing diet to patients and no condition was included for the provision of patient-centric diet.

(iii) Outsourcing of Dietary Services

In order to provide diet to the in-patients of the HCIs (DH, SDH, RH, WH and TB hospitals under the PHD), four contractors were engaged (March 2019) by Joint Director of Health Services (Procurement Cell), Mumbai, by inviting tenders. As per contract conditions, the contractors had to provide tea (two times), breakfast with milk, and two meals (Lunch and Dinner).

The cost of the diet per patient per day was ₹ 120 plus five *per cent* Goods and Service Tax (GST) in SDH and RH, while in DH, it was ₹ 110 plus GST.

Audit noticed the following:

- As per clause 3(B) of the contract, a Diet Committee of Hospital should visit the kitchen for inspection and collect food samples to be tested in the district Public Health Laboratory, at least once every month. In case of adulteration, fine of ₹ 50,000 for every instance was leviable from the contractor. Audit noticed that 16 test-checked HCIs having dietary services in Pune, Kolhapur, Nanded, and Jalgaon districts did not get the food samples tested from any Public Health Laboratory.
- Scrutiny of diet register revealed that the supply of diet to the in-patients in RH, Shirur and RH, Shikrapur of Pune district was stopped by the contractor since September 2021 and January 2022 respectively. Similarly, in SDH, Chopda of Jalgaon district, the diet was not provided to in-patients from September 2017 to March 2019. In RH, Erandol, the diet was discontinued from September 2019 to May 2020. However, these HCIs did not make any

⁴⁸ Pune: Five and Jalgaon: Two.

alternate arrangements to provide food to the patients during the said periods.

(iv) Distribution of diet in unhygienic plastic cover

As per IPHS, hygienic diet should be supplied in covered container. Audit observed that in Krantijyothi Savitribai Phule (Talera) Hospital of Pimpri-Chinchwad Municipal Corporation, Pune the contractor was supplying diet in plastic pouch to the patients.



Recommendation 4: Government may ensure that the nutritional requirements of patients are addressed by delivery of patient centric diets.

3.1.2.2 Ambulance services

(i) Availability of Ambulance

IPHS and NHM Assessor's guidebook provided that the district hospitals should ensure adequate, timely and round the clock ambulance service equipped with Basic Life Support (BLS) and preferably at least one Advanced Life Support (ALS) ambulance. The serviceability and availability of equipment and drugs in the ambulance were to be checked on a daily basis. As per IPHS, two to four ambulances are required to be available in 50 to 500 bedded hospitals. Information obtained from 21 DHs, 19 WHs and 29 hospitals attached to medical colleges in the State on availability of ambulances as of May 2023 revealed the following:

- As against the requirement of two ambulances, WH, Sindhudurg did not have any ambulance. In the remaining 18 WHs, the ambulances were available as per requirement.
- As against the requirement of four ambulances, Government Medical College Hospital, Jalgaon did not have any ambulances. In the remaining 28 hospitals attached to medical colleges, the ambulances were available as per requirement.

(ii) 108 Ambulance services

Maharashtra Emergency Medical Services (MEMS) project under National Health Mission provides pre-hospital health services to patients through life

support ambulances to nearby hospitals for further treatment. The main objective of the project is to provide first aid to preserve life, prevent further injury and promote recovery and reduction of 20 *per cent* in mortality and morbidity.

GoM had appointed M/s BVG India Limited as the service provider to implement the MEMS project in the State. The service provider was responsible to maintain and run the setup of the Emergency Response Centre for running ambulances to provide 24 hours per day and 365 days a year emergency response through 24 hours toll-free number “108”. As per the agreement, the average response time for all monthly calls was 20 minutes in urban areas and 30 minutes in rural areas. Penalty of ₹ two lakh per minute was leviable if monthly average goes more than the average response time stipulated.

Under MEMS project, 937 ambulances were deployed in all 34⁴⁹ districts on the basis of population. The population norm adopted by the GoM was one ambulance for two lakh urban population and one ambulance for one lakh rural population.

Scrutiny revealed the following:

- There was a shortage of ambulances in 23 districts. The shortage of ambulances ranged between three *per cent* (Chhatrapati Sambhajnagar and Kolhapur) and 27 *per cent* (Beed) as shown in **Appendix 3.7**.
- Data on the response time of “108 Ambulance” from April 2016 to March 2022 revealed that the average response time for all monthly calls was achieved in rural areas. In urban areas also the average response time for all monthly calls was achieved except in the month of September 2018 and July 2019 during which the response time was 20 minutes 20 seconds and 20 minutes 55 seconds, respectively.

3.1.2.3 Mortuary Services

Information obtained from 21 DHs, 19 WHs and 29 hospitals attached to medical colleges in the State as of May 2023 revealed the following:

- Mortuary Services were available in all DHs except Chhatrapati Sambhajnagar, Dhule and Nanded.
- Out of 19 WHs, Mortuary services were available only in WH Neknur, District Beed.
- Out of 29 hospitals attached to medical colleges, mortuary services were not available in five⁵⁰ hospitals attached to medical colleges.

3.1.3 Auxiliary Services

Auxiliary services in HCIs are activities that facilitate the health care services. It includes patient safety facilities, grievances/complaint redressal and stores.

⁴⁹ Information in respect of Palghar district is combined with Thane district and information in respect of Mumbai City and Mumbai Suburban is combined.

⁵⁰ Cancer Hospital, Chhatrapati Sambhajnagar; Cama and Albless Hospital, Mumbai; Dr. Babasaheb Ambedkar Hospital and Research Centre Nagpur, Super Speciality Hospital, Nagpur and Women Hospital, Yavatmal.

3.1.3.1 Disaster management

(i) Preparation of disaster management plan

According to the National Disaster Management Guidelines on Hospital Safety, 2016, each hospital was required to constitute Hospital Disaster Management Committee for developing a Hospital Disaster Management Plan (HDMP). The Committee should regularly review the HDMP and also conduct periodical drills to test the response capabilities in emergencies in real time.

Audit noticed that out of 84 test-checked HCIs (RH and above), 23 HCIs (27 *per cent*) did not constitute the hospital disaster management committee and 35 HCIs (42 *per cent*) had not prepared the disaster management plan.

(ii) Fire safety

Maharashtra Fire Prevention and Life Safety Measures Act, 2006, prescribes standards for fire prevention and life safety measures in buildings.

During the joint inspection of 50 test-checked HCIs, Audit noticed that 36 HCIs (72 *per cent*) did not obtain no objection certificate from the fire department. In 22 HCIs (44 *per cent*) smoke detectors were not installed, 20 HCIs (40 *per cent*) did not have fire alarms, 27 HCIs (54 *per cent*) did not have provisions for underground water storage facility for firefighting while 29 HCIs (58 *per cent*) did not construct underground static water tank for meeting the fire contingencies. In 21 HCIs (42 *per cent*) fire evacuation plans/routes were not displayed.

The Commissioner, Health Services, Mumbai directed (January 2021) all the hospitals in the State to conduct fire and electrical safety audit.

Scrutiny revealed that though the fire and electricity audit was conducted, none of the test-checked HCIs in selected districts (Amravati, Chhatrapati Sambhajnagar, Chandrapur, Jalgaon, Pune, Kolhapur and Nanded) complied with the recommendations.

The MEDD stated (January 2023) that funds were sanctioned under the District Planning Committee for fire prevention in HCIs of Nanded district. It was also stated that proposals in respect of Kolhapur and Chandrapur district were under consideration.

In respect of seven test-checked HCIs run by Brihanmumbai Municipal Corporation (BMC), Audit noticed that fire audit in six test-checked HCIs was completed. However, four out of these six HCIs had not complied with the fire audit observations (January 2023).

(iii) Structural Audit

According to the National Disaster Management Guidelines on Hospital Safety, 2016, the maintenance systems developed for the hospital should ensure that the strength of the structural elements shall not further deteriorate compared to their intended level. The structural systems of all buildings also require routine maintenance. The maintenance system of hospitals should also include structural safety assessment or structural audit at pre-determined intervals (every five years to revalidate the structural audit carried out earlier) using more detailed evaluation. Further, as per the Mumbai Municipal Corporation Act, 1888 and the Maharashtra Municipal Corporations Act, 1949, if any building is

more than 30 years old, a structural audit has to be conducted and based on the report of the structural audit, the structural repairs and renovation works have to be carried out. Audit scrutiny revealed the following:

- Structural audit of Cama and Albless Hospital, Mumbai (March 2021), St. George's Hospital, Mumbai (April 2018), Government Medical College and Hospital, Chandrapur (August 2017) and Government Medical College and Hospital, Jalgaon (April 2021) were conducted. However, no action on the recommendations made in the structural audit was taken by these hospitals.
- Out of seven test-checked HCIs of BMC, the structural audit was not conducted in two HCIs⁵¹. No action on the recommendations made on structural audit was taken by four out of five HCIs.

Recommendation 5: Government may ensure that the Health Care Institutions comply with fire, electric and structural audit requirements in a time-bound manner.

⁵¹ Khursheedji Behramji Bhabha Municipal General Hospital, Bandra (West), V. N. Desai Municipal General Hospital, Santacruz, Mumbai.

CHAPTER 4

Availability of Drugs, Medicines, Equipment and Other Consumables

Chapter 4: Availability of Drugs, Medicines, Equipment and Other Consumables

Audit noticed deficiencies in the finalisation of tenders in the centralised procurement system. There were instances of non-supply of medicines, consumables and equipment to Health Care Institutions (HCIs). Deficiencies were noticed in the storage facility for drugs and medicines. Medical Equipment were lying idle or non-operational in the test-checked HCIs.

4.1 Procurement process

The PHD, GoM decided (July 2017) to adopt a centralised procurement system, with a view to streamline the procurement process to have uniformity in rates and specifications for drugs, medicines, consumables, and equipment procured as well as to avail the benefit of bulk purchases. Accordingly, an independent procurement cell under Haffkine Bio-Pharmaceutical Corporation Limited (HBPCL), a Government of Maharashtra Company was established (July 2017) for the procurement of drugs, medicines, consumables, and equipment required for HCIs under the jurisdiction of PHD, MEDD and other government departments. The Local Bodies in the State, however, had the option of procuring through HBPCL or through their own procurement system.

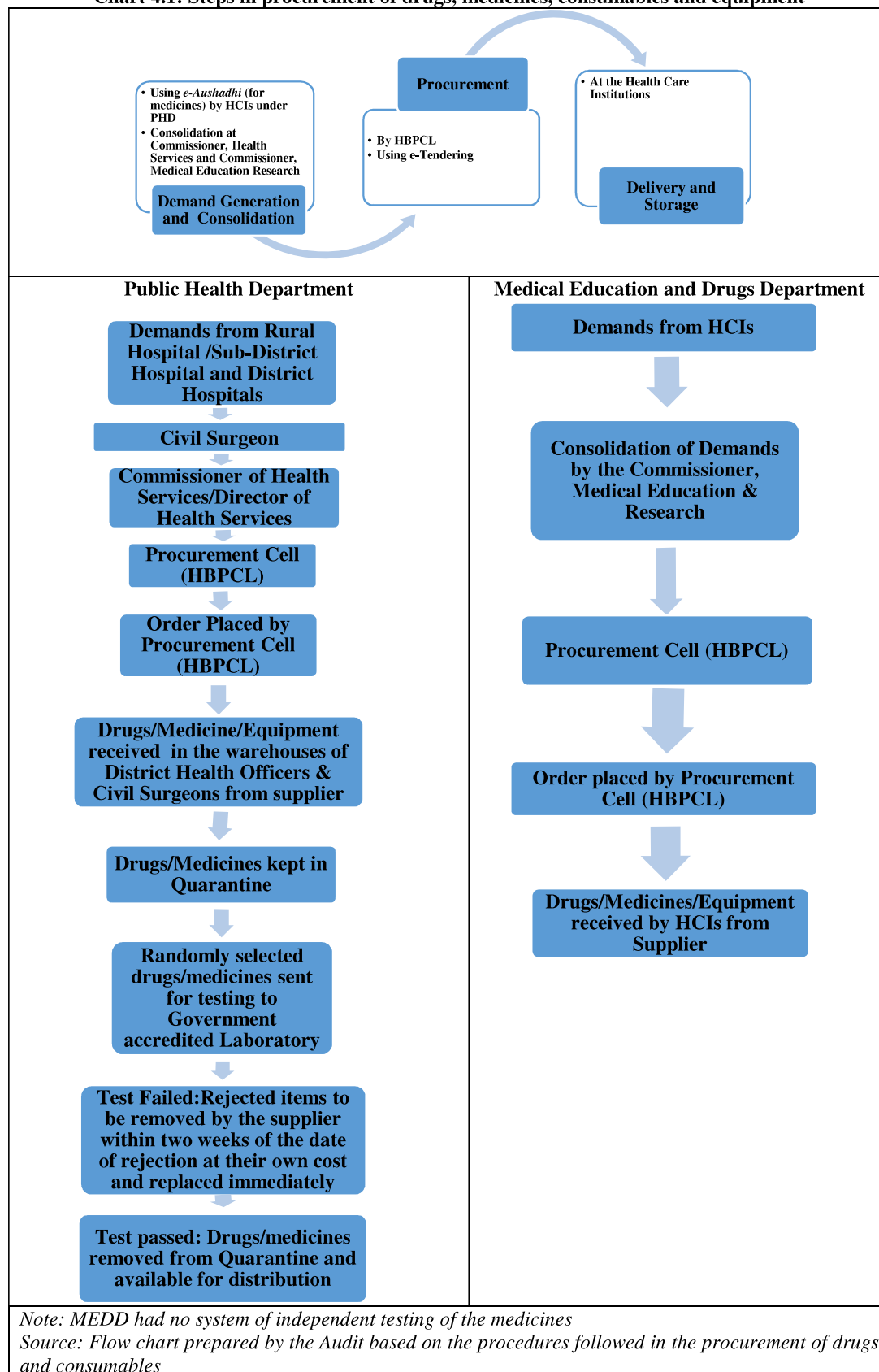
PHD was using *e-Aushadhi* a web-based supply chain management system for inventory management of drugs and consumables. Annual demand for purchase of drugs, medicines and consumables was made through the *e-Aushadhi* system, except for equipment. In respect of equipment the annual demand was made manually.

Procurement Cell, HBPCL used e-Tendering system, a web-based system of GoM, for all tenders having an estimated value of above ₹ three⁵² lakh.

The broad steps involved in the procurement of drugs, medicines, consumables and equipment for the HCIs are shown in **Chart 4.1**.

⁵² The amount of ₹ three lakh was increased to ₹10 lakh from May 2021.

Chart 4.1: Steps in procurement of drugs, medicines, consumables and equipment



4.2 Purchase of drugs, medicines, consumables and equipment

The annual demand for drugs, medicines, consumables and equipment of respective HCIs is consolidated by the Commissioner of Health Services (CHS) under PHD and the Commissioner of Medical Education and Research (CMER) under MEDD. The annual demand is then submitted to respective administrative departments for approval.

In respect of PHD, the CHS, on allocation of budget for procurement, transfers 90 *per cent* of grants to HBPCL and balance 10 *per cent* of grants to HCIs concerned for local purchases. However, in respect of MEDD, the entire grants were being transferred directly to the HCI concerned, who in turn, transfers 90 *per cent* of grant to HBPCL by retaining 10 *per cent* for local purchase.

All procurements were made through the tendering process as laid out in the Government Resolution of 1 December 2016. In case of emergency, the HCIs make local purchases from the local vendors out of the 10 *per cent* fund retained by them. The year-wise details of funds received *vis-à-vis* expenditure incurred by the HBPCL during 2017-18 to 2021-22 are shown in **Table 4.1**. The year-wise funds received, expenditure incurred, and balance are shown in **Appendix 4.1**.

Table 4.1: Funds received *vis-à-vis* expenditure incurred by HBPCL
(₹ in crore)

Year	Funds received	Supply order issued	Expenditure incurred	Refund, if any	Balance
2017-18	483.94	303.82	257.96	102.03	123.95
2018-19	794.31	597.51	354.98	33.01	406.32
2019-20	824.7	550.33	467.67	24.47	332.56
2020-21	1,650.32	1,006.17	807.78	0.14	842.40
2021-22	544.78	522.01	197.73	0	347.05
Total	4,298.05	2,979.84	2,086.12	159.65	2,052.28

Source: Information furnished by HBPCL

As seen from **Table 4.1**, as against ₹ 4,298.05 crore received from PHD and MEDD, HBPCL placed supply orders for ₹ 2,979.84 crore. Out of the supply orders of ₹ 2,979.84 crore, supplies amounting to ₹ 2,086.12 crore were received. Further, funds amounting to ₹ 2,052.28 crore (48 *per cent*) were lying idle with HBPCL.

4.3 Drugs and Medicines

The deficiencies noticed in the procurement of drugs and medicines are discussed in succeeding paragraphs.

4.3.1 Non-supply of medicines and consumables

Funds are transferred by Commissioner of Health Services and HCIs under MEDD to HBPCL for procurement of medicines and consumables. The details of medicines and consumables demanded by the CHS and supplied by the HBPCL during 2017-18 to 2021-22 was not available with CHS.

The status of medicines and consumables demanded and supplied was provided by 12 test-checked HCIs under MEDD. The details are shown in **Appendix 4.2**.

As seen from **Appendix 4.2**, 71 *per cent* of the items demanded by the test-checked HCIs were not supplied by HBPCL during 2017-18 to 2021-22.

MEDD stated (January 2023) that GoM has appointed a consultant to prepare a Standard Operating Procedure for procurement procedure, which would be implemented shortly.

Recommendation 6: The procurement process of HBPCL may be streamlined to ensure timely availability of medicines, consumables and equipment to the Health Care Institutions.

4.3.2 Delay in finalisation of Rate Contract

Central Purchase Department (CPD) of Brihanmumbai Municipal Corporation (BMC) purchases required medicines, surgical items and other supplies for the hospitals under its jurisdiction on Rate Contracts (RCs). The RCs in BMC are generally valid for a period of two years from the date of approval of Standing Committee of BMC.

Audit noticed instances of delays in finalisation of RCs in respect of eight out of 12 schedules after the expiry of the earlier RC, as shown in **Table 4.2**.

Table 4.2: Delay in finalisation of Rate Contract by BMC

Sr. No.	Schedule No.	Items in schedule	Last RC period	New RC period	No. of months for which RC was not available
1	1	Injections and Vaccines	24 July 2019 to 23 July 2021	7 March 2022 to 6 March 2024	7 months
2	2	Tablets and Capsules	14 January 2020 to 13 January 2022	e-Tendering under progress	3 months as of May 2022
3	3	Cream, drops, ointments, oral liquid, lotion, syrups, etc.	26 February 2020 to 25 February 2022	e-Tendering under progress	2 months as of May 2022
4	6	Laboratory chemicals, stains and reagents	27 September 2017 to 26 September 2019	21 January 2022 to 20 January 2024	27 months
5	7	Surgical, Dressings	17 October 2017 to 16 October 2019	5 April 2022 to 4 April 2024	29 months
6	8	Needles and syringes	8 November 2017 to 7 November 2019	14 May 2021 to 13 May 2023	17 months
7	10	Laboratory articles, Dispensaries, etc.	31 May 2019 to 30 May 2021	e-Tendering under progress	11 months as of May 2022
8	11	Rubber goods	27 September 2017 to 26 September 2019	31 December 2021 to 30 December 2023	26 months

Source: Information furnished by BMC

As seen from **Table 4.2**, there was a delay in finalisation of RC for a period ranging between two months to 29 months. Due to expired RCs, the HCIs had to resort to local purchases to cater its requirement.

The Deputy Dean, CPD, BMC stated (May 2022) that there are approximately 1,552 items under various schedules and approximately 532 bidders participated in the bidding due to which works related to various tendering formalities like

finalisation of agreements, bank guarantee and deposits have increased. In the meanwhile, due to pandemic situation, the finalisation was further delayed.

The reply is not acceptable since RCs had expired at different periods and the CPD had sufficient time to finalise the RC before its expiry.

4.3.3 Availability of Essential Medicine

Drawing an essential medicines list (EML) is expected to result in better quality of medical care, better management of medicines and cost-effective use of healthcare resources.

The decision about which medicines are essential remains a national responsibility based on the country's disease burden, priority health concerns, affordability concerns, *etc.* The Ministry of Health and Family Welfare, GoI issued (2015) National List of Essential Medicines (NLEM). It was also directed that the list of essential medicines should be prepared at level of facility. Scrutiny of records revealed that the test-checked HCIs under PHD, MEDD and Municipal Corporations had prepared list of essential drugs. According to the NLEM 2015, 376 medicines are listed for 30 therapeutic use.

Similarly, Commissioner of Health Services, Maharashtra also prepared a list of 198 types of medicines for different therapeutic use as Essential Drug List. Out of 198 essential drugs 88 and 70 types of drugs were marked as vital drugs for hospitals (DH/GH, SDH, WH and RH) and PHCs respectively in e-Aushadhi system.

Out of 84 test-checked HCIs under PHD, 49 HCIs provided the data relating to availability of vital drugs. Scrutiny of records of 49 HCIs revealed that there was shortfall in the availability of vital drugs which ranged between 11 *per cent* (Amravati) and 54 *per cent* (Jalgaon) as shown in **Table 4.3**.

Table 4.3: Availability of vital medicines in selected districts as of June 2022

District	Number of test-checked HCIs under PHD	Total No. of vital medicines to be available	Total No. of vital medicines not available	Shortfall percentage
Amravati	3	246	28	11
Chhatrapati Sambhajnagar	9	702	372	53
Jalgaon	10	808	434	54
Kolhapur	11	878	397	45
Nanded	6	528	130	25
Pune	10	808	320	40
Total	49	3,970	1,681	42

Source: Information furnished by test-checked HCIs

As seen from **Table 4.3**, in Chhatrapati Sambhajnagar, Jalgaon, Kolhapur and Pune districts, the average shortfall was 40 *per cent* and above.

4.3.4 Improper storage of drugs and medicines

As per IPHS, a separate area for the storage of drugs, medicines and consumables should be provided with adequate storage space. The area should be well-lit and ventilated and rodent/pest free. Sufficient number of racks should also be provided. Drugs should be stored properly and systematically in a cool (away from direct sunlight), safe and dry environment. Inflammable and hazardous materials should be secured and stored separately. Near-expiry drugs should be segregated and stored separately.

Joint physical inspection of the Pharmacy section in 50 HCIs revealed that due to shortage of space for storage of medicines and consumables, medicines were kept below the staircase, corridors and other open spaces. Audit also noticed that labeled shelves were not available in nine HCIs, drugs were not stored away from the wall in 14 HCIs, temperature chart for deep freezers was not maintained in 14 HCIs, no separate space for storage of expired drugs was available in five HCIs and poisons were not stored in locked cupboards in eight HCIs.



Medicines stored below staircase near electric panel in District Drugs Warehouse, District Health Officer, Chhatrapati Sambhajinagar (2 June 2022)



Plastic cover laid to protect from leakage in PHC, Kasoda, Taluka Erandol, District Jalgaon (17 March 2022)

Recommendation 7: Government may fix responsibility on officials responsible for improper storage of medicines and consumables and ensure that medicines and consumables are stored as per Indian Public Health Standards.

4.4 Quality control

Quality control plays a major role in providing high-quality drugs to patients. As per the terms and conditions of contracts between HBPCL and the Suppliers, for supply of drug and consumables, after supply of medicines to indenting HCIs, the concerned officer should get the drug samples tested from Government approved laboratory. On testing, if the sample is declared to be Not of Standard Quality or spurious or adulterated or misbranded, such batch/batches will be deemed to be rejected goods. Rejected items must be removed by the supplier within two weeks of the date of rejection at their own cost and replaced immediately. In case the sample fails quality test, the purchaser or consignee is at liberty to make alternate purchase from any other sources and has every right to recover the higher cost, if any, from the supplier.

4.4.1 Sample testing in PHD

In PHD, the samples of batches of drugs and medicines are randomly selected by the concerned HCI and sent to the CHS for further transmission to the lab for testing. The CHS, in turn, sent these samples for testing. After quality of drugs and medicines is approved by the Government approved laboratory, the same are rolled out in the supply chain.

4.4.1.1 Delay in delivery of analysis report of tested samples

PHD, GoM empaneled laboratories for analytical testing of samples of drugs, medicines and consumables. As per conditions stipulated in the empanelment order, the laboratories should furnish the test report within 10 days from the receipt of the samples in the case of tablets, capsules, powder/liquid oral preparations and consumables and 21 days from the receipt of the sample in the case of Intravenous (IV) fluids and injectable, surgical drugs.

As per the information furnished by the Director, Health Services, Mumbai, 17,254 samples were analysed by the empaneled laboratories during 2016-17 to 2021-22. Out of which 14,275 test reports were received within the stipulated time-limit and 2,979 test reports were received after stipulated time-limit. The details of the delay in receipt of test-report after stipulated time-limit is shown in **Table 4.4**.

Table 4.4: Delay in receipt of test-report

Delay Range	No. of samples
Upto one month	2,238
One month to six months	731
More than six months	10
Total	2,979

Source: Information furnished by Director, Health Services, Mumbai

4.4.2 Sample testing in MEDD

Audit noticed that such system of independent testing was not followed in MEDD and the MEDD solely relied on the analysis report provided by the supplier to the HBPCCL. As such, the medicines were supplied to HCIs without any independent testing.

MEDD stated (January 2023) that HBPCCL has informed the Commissioner, Medical Education and Research to follow procedures for testing of medicines similar to those being followed by Commissioner of Health Service.

In the Exit Conference, the Secretary, MEDD while accepting the facts stated that the Department has initiated the process to empanel laboratories for testing of medicines and drugs.

Recommendation 8: Government may establish standardised quality control mechanism to ensure supply of quality medicines to the patients.

4.5 Availability of essential equipment

IPHS stipulates the equipment norms keeping in view the assured services recommended for various grades (based on number of beds) of District Hospitals. The equipment required are categorised under headings such as imaging equipment, eye equipment, operation theatre equipment, laboratory

equipment, endoscopy equipment *etc.* The availability of essential⁵³ operation theatre equipment and laboratory equipment in the four test-checked District hospitals revealed shortage in the availability of equipment as shown in **Table 4.5**.

Table 4.5: Availability of equipment in test-checked District hospitals

Sr. No.	Particulars	District Hospital, Amravati			District Hospital, Chhatrapati Sambhajanagar			District Hospital, Nanded			District Hospital, Pune			Total		
		Requirement	Available	Shortage	Requirement	Available	Shortage	Requirement	Available	Shortage	Requirement	Available	Shortage	Requirement	Available	Shortage (per cent)
		(in numbers)														
1	Operation Theatre equipment	47	16	31	35	20	15	35	15	20	35	32	3	152	83	69 (45)
2	Laboratory equipment	153	55	98	118	30	88	118	30	88	118	85	33	507	200	307 (61)

Source: Information furnished by concerned District Hospitals

As seen from **Table 4.5**, the shortage in operation theatre equipment was 45 *per cent* while the shortage in laboratory equipment was 61 *per cent* in the four test-checked District hospitals.

4.6 Procurement of equipment

The deficiencies noticed in the procurement of equipment are discussed in succeeding paragraphs.

4.6.1 Deficiencies in finalisation of tenders for medical equipment

HBPCL invited 3,028 tenders with an estimated cost of ₹ 1,811.95 crore for procurement of medical equipment during 2017-18 to 2021-22. Of these 3,028 tenders, 890 tenders valued at ₹ 528.60 crore were finalised, responses to 488 tenders involving ₹ 364.11 crore were not received, 842 tenders with an estimated cost of ₹ 357.63 crore were cancelled/withdrawn, while 808 tenders costing of ₹ 561.61 crore were pending for finalisation at various stages of tendering as of May 2022. The age-wise analysis of 808 tenders, which were pending at various stages of tendering is shown in **Table 4.6**.

Table 4.6: Age-wise analysis of tenders pending finalisation

Range of delay	No. of Tender	Amount involved (₹ in crore)
More than four years	18	25.97
More than three years	85	50.75
More than two years	323	169.51
More than one year	346	194.02
Less than one year	36	121.36
Total	808	561.61

Source: Information furnished by HBPCCL

⁵³ For 100 to 200 bedded district hospitals, IPHS recommended 17 items of operation theatre equipment and 49 items of laboratory equipment. For district hospitals having more than 300 beds, IPHS recommended 19 items of operation theatre equipment and 58 items of laboratory equipment.

4.6.2 Non-supply of medical equipment in test-checked HCIs

Audit noticed non-supply of equipment such as ventilators, portable X-ray machine, anesthesia workstations, fiber optic bronchoscopy, defibrillator, suction machine, X-ray, CT scan, Electric Hydraulic Gynaecology OT Table, motorised labour table, plasma sterilizer, microscope, *etc.*, in the test-checked HCIs as shown in **Table 4.7**.

Table 4.7: Non-supply of Medical Equipment in test-checked HCIs

Sr. No.	Name of the HCI	Amount paid for procurement of equipment (₹ in crore)	Period during which paid	Value of equipment not supplied (₹ in crore)	Period of non-supply till March 2022 (months)
1	Cama and Albless Hospital, Mumbai	11.77	June 2018 to June 2021	10.37	9 to 46 months
2	Sassoon General Hospital, Pune	74.19	October 2017 to June 2021	38.98	9 to 54 months
3	B. J. Medical College, Pune	23.05	March 2019 to March 2022	13.02	upto 37 months
4	Chhatrapati Pramilaraje Hospital, Kolhapur	15.29	January 2018 to April 2021	11.85	11 to 51 months
5	Rajashree Chhatrapati Shau Maharaj, Government Medical College, Kolhapur	2.78	June 2018 to March 2022	2.35	upto 46 months
6	Government Medical College, Baramati, District Pune	106.27	March 2019 to March 2021	37.22	12 to 37 months
7	Government Medical College and Hospital, Baramati, District Pune	60.85	Nov 2020 to March 2021	44.23	12 to 17 months
8	Government Medical College and Hospital and Government Cancer Hospital, Chhatrapati Sambhajanagar	102.27	March 2018 to March 2022	64.62	upto 49 months
9	Government Dental College, Chhatrapati Sambhajanagar	10.83	March 2018 to March 2022	9.06	upto 49 months
	Total	407.30		231.70	

Source: Information furnished by the HCIs

As seen from **Table 4.7**, procurement of medical equipment amounting to ₹ 231.70 crores (57 per cent) was still pending and the HCIs were deprived of required equipment even after a lapse of upto 54 months.

4.6.3 Idling/non-commissioning of equipment

Scrutiny of records in the test-checked HCIs revealed medical equipment lying idle or not in working condition. Some of the instances of non-operational/idle equipment noticed in test-checked HCIs are shown in **Table 4.8**.

Table 4.8: Idling/non-commissioning of equipment

Sr. No	Name of the HCI	Name of the equipment	Idle/non-commissioned since	Reason
1	G.T. Hospital, Mumbai	Breath Gas Analyser (non-commissioned)	October 2010	Not commissioned by the supplier.
2	RH, Shikrapur, Pune	Sonography Machine	March 2014	Not in working condition.
3	M. A. Poddar Hospital, Mumbai	Two Sonography Machines	2015	Non-availability of technicians.
4	SDH, Mukhed, Nanded	CT scan Machine (non-commissioned)	March 2015	Not commissioned by the company to whom the work of installation was issued.
5	Y.C.M Hospital, PCMC, Pune	22 types of equipment	2013	Non-availability of spares of equipment.

Source: Information furnished by the HCIs

Audit noticed that two sonography machines at M. A. Podar Hospital, Worli, Mumbai were idle due to the non-availability of technicians.

Recommendation 9: Government may fix responsibility on officials responsible for non-utilisation of equipment and take steps to ensure its commissioning on top priority.

4.7 e-Aushadhi

e-Aushadhi is a web-based supply chain management application software solution for managing Annual Demand, Purchase, Inventory and Distribution of various drugs and consumables.

The drugs/consumables are delivered to the Drug Warehouse headed by the Civil Surgeon (CS) for further distribution to SDHs and RHs, etc. Drug Warehouses headed by the District Health Officer (DHO) distribute drugs/consumables to the PHCs/SCs. On receipt of the drugs/consumables by the Warehouses, the drug details are manually entered into *e-Aushadhi* system by the Pharmacy Officers.

Test-analysis of *e-Aushadhi* data of the seven selected districts relating to central purchases (2016-17 to 2021-2022) indicated errors in the drug details entered into the system. One such error was in respect of the expiry date of the drugs/consumables captured across various CS and DHO. There were 636 entries of same drugs/consumables (having same manufacturers and batch numbers) which had different expiry dates.

Such instances indicate that the data entered into the system was not being adequately monitored. Though, the Department had claimed that the entries are verified and approved by the Medical Officers, it also acknowledged that in case of data errors, corrections are made by the DHS on receipt of email regarding the same from the district stores.

The *e-Aushadhi* system being a critical tool for drug management, it is imperative that the entries in the system are free of errors.

Recommendation 10: Government may consider capturing of drug details automatically from the bar codes present on the supplied items and in case of manual entries, ensure that supervisory authorities are certifying the data correctness. A periodic exercise to identify erroneous information present in the system can also be put in place.

CHAPTER 5

Healthcare Infrastructure

the fact that the *de novo* mutation rate is low, the *de novo* mutation rate is not the only source of genetic variation.

There are two main sources of genetic variation: *de novo* mutations and recombination. *De novo* mutations are mutations that arise spontaneously in the germ line, while recombination is the process by which genetic material is exchanged between chromosomes.

Recombination is a key process in the evolution of a population, as it allows for the mixing of genetic material from different individuals, leading to the formation of new genotypes.

Recombination is also a key process in the evolution of a species, as it allows for the formation of new species through the process of speciation.

Recombination is also a key process in the evolution of a population, as it allows for the formation of new genotypes through the process of recombination.

Recombination is also a key process in the evolution of a species, as it allows for the formation of new species through the process of speciation.

Recombination is also a key process in the evolution of a population, as it allows for the formation of new genotypes through the process of recombination.

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Recombination is also a key process in the evolution of a population, as it allows for the formation of new genotypes through the process of recombination.

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 Albless 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

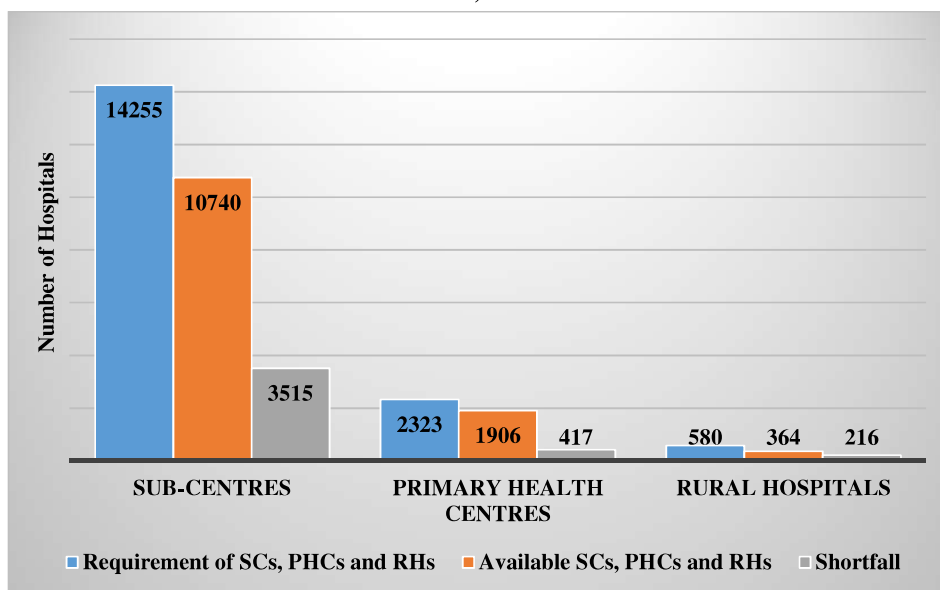
Category of HCIs	Requirement as per projected population as on 1 st July 2022 [#]	HCIs existing HCIs as of February 2023 ^{\$\$}	Shortfall	Percentage shortfall
Sub-Centres	14,255	10,740	3,515	25
Primary Health Centres	2,323	1,906	417	18
Rural Hospitals	580	364	216	37

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)

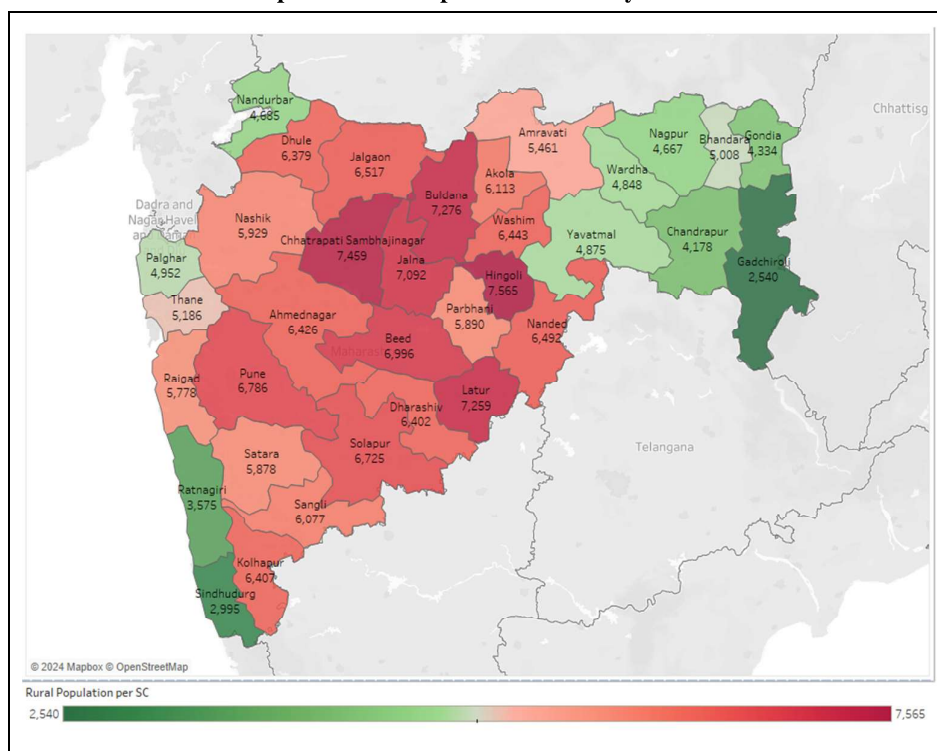
⁵⁸ In Maharashtra, Community Health Care Centre is known as Rural Hospital.

■ **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

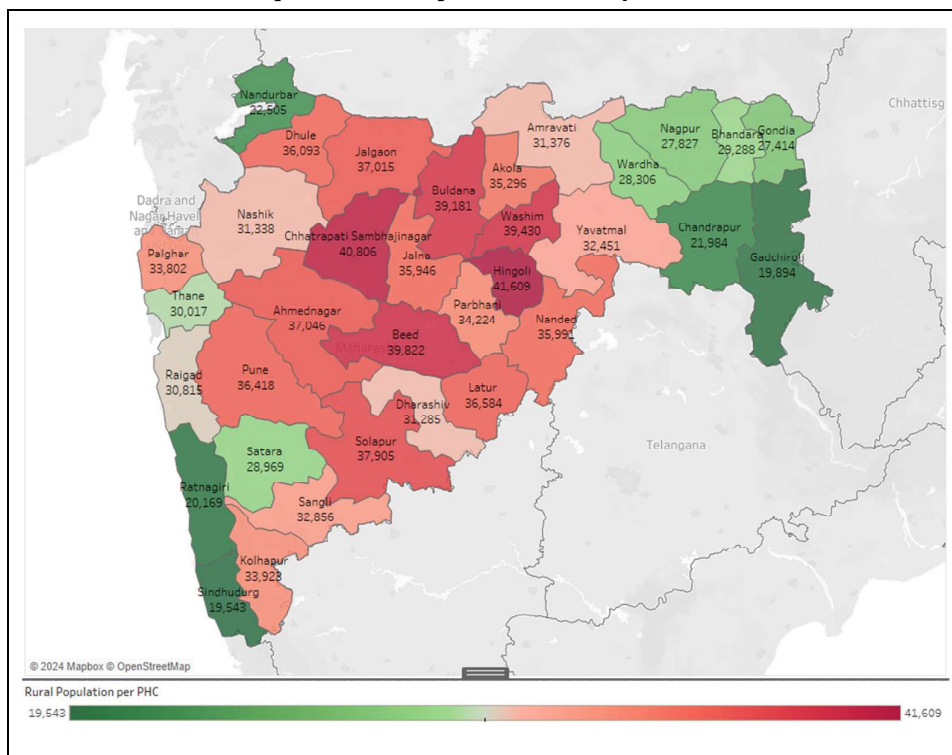


Source: Population Census 2011 and Public Health Department, GoM, 'Comprehensive Note for 1st Session of Year 2023 (February 2023)

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

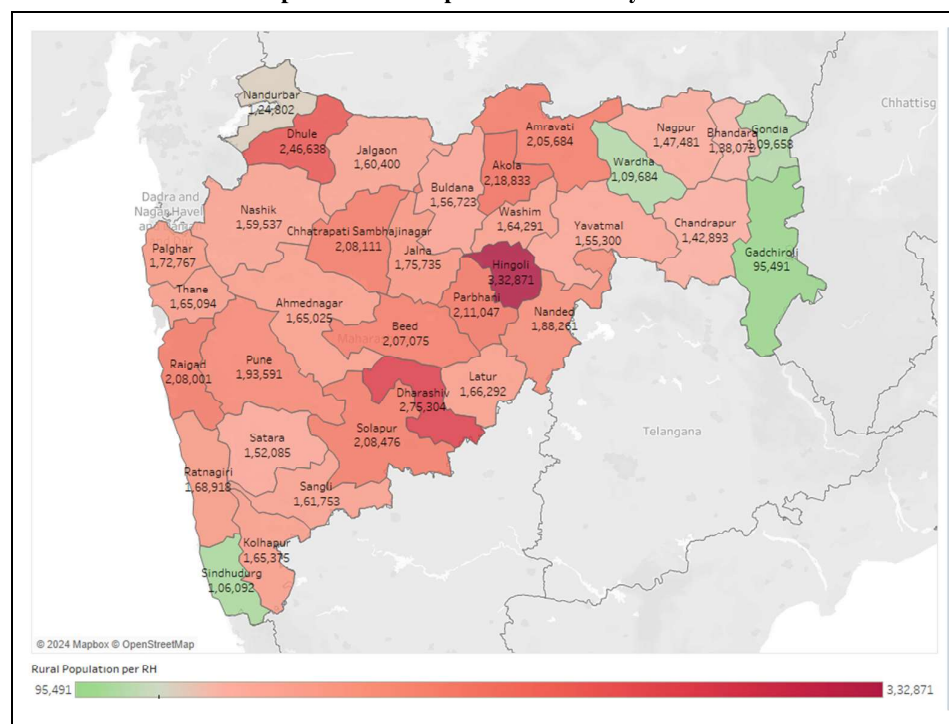


Source: Population Census 2011 and Public Health Department, GoM, 'Comprehensive Note for 1st Session of Year 2023 (February 2023)

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 Sambhajinagar, (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

CHAPTER 6

Financial Management

the fact that the *de novo* mutation rate is low, the *de novo* mutation rate is not the only source of genetic variation.

Genetic variation is also a result of recombination. Recombination is the process by which genetic material is exchanged between chromosomes, resulting in new combinations of alleles.

Recombination is a key mechanism for generating genetic diversity, and it is essential for the evolution of many species.

Genetic variation is also a result of gene flow. Gene flow is the movement of genetic material between populations, which can introduce new alleles into a population.

Gene flow is a key mechanism for maintaining genetic diversity, and it is essential for the evolution of many species.

Genetic variation is also a result of natural selection. Natural selection is the process by which certain alleles are favored over others, leading to the evolution of a population.

Natural selection is a key mechanism for generating genetic diversity, and it is essential for the evolution of many species.

Genetic variation is also a result of genetic drift. Genetic drift is the random change in allele frequencies over time, which can lead to the loss of genetic diversity.

Genetic drift is a key mechanism for generating genetic diversity, and it is essential for the evolution of many species.

Genetic variation is also a result of mutation. Mutation is the process by which a change in the DNA sequence occurs, which can lead to the creation of new alleles.

Mutation is a key mechanism for generating genetic diversity, and it is essential for the evolution of many species.

Genetic variation is also a result of recombination. Recombination is the process by which genetic material is exchanged between chromosomes, resulting in new combinations of alleles.

Recombination is a key mechanism for generating genetic diversity, and it is essential for the evolution of many species.

Genetic variation is also a result of gene flow. Gene flow is the movement of genetic material between populations, which can introduce new alleles into a population.

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Genetic variation is also a result of natural selection. Natural selection is the process by which certain alleles are favored over others, leading to the evolution of a population.

Natural selection is a key mechanism for generating genetic diversity, and it is essential for the evolution of many species.

Chapter 6: Financial Management

Audit noticed persistent savings and rush of expenditure in the month of March which was indicative of the ineffective budgetary controls in the Departments.

The National Health Policy (NHP) envisaged increase in State sector health expenditure to more than eight per cent of budget by 2020. In Maharashtra, it was observed that budget outlays on health and family welfare was only 4.91 per cent of total budget (2021-22).

A large number of abstract contingency bills were pending due to non-submission of detailed contingent bills in PHD and MEDD. Instances of retention of excess amount by HCIs against the admissible limit of 10 per cent for local purchase of medicines and consumables were also noticed.

Under the National Health Mission, as against the cumulative allotment of ₹ 14,871.05 crore as per resource envelope sanctioned by GoI, there was a short release of ₹ 1,739.73 crore (12 per cent) by Government of India and Government of Maharashtra during 2016-17 to 2021-22.

6.1 Financial Management

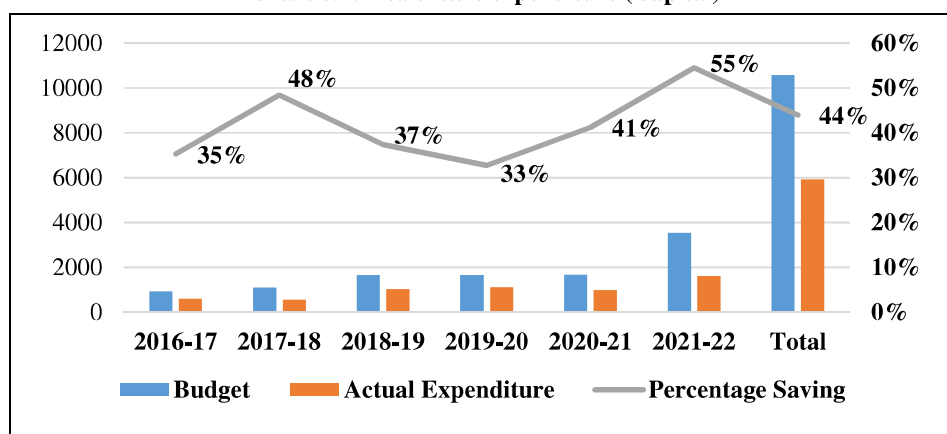
Adequate and timely availability of funds is a fundamental prerequisite for the delivery of quality and efficient healthcare services. Funds are made available to the HCIs through the State budget. Financial assistance under NHM is also received from GoI with corresponding share of the State Government. The year-wise budget estimates and actual expenditure during 2016-17 to 2021-22 in PHD and MEDD is shown in **Table 6.1** and depicted in **Chart 6.1** and **Chart 6.2**.

Table 6.1: Budget estimate and actual expenditure in PHD and MEDD
(₹ in crore)

Year	Budget Estimate		Actual Expenditure		Saving		Saving in Percentage	
	Capital	Revenue	Capital	Revenue	Capital	Revenue	Capital	Revenue
2016-17	930.81	11,942.17	602.37	10,121.43	328.44	1,820.74	35	15
2017-18	1,104.26	13,889.70	569.85	11,604.72	534.41	2,284.98	48	16
2018-19	1,655.58	14,662.03	1,036.72	11,969.31	618.86	2,692.72	37	18
2019-20	1,659.71	16,252.30	1,115.86	13,576.27	543.85	2,676.03	33	16
2020-21	1,684.14	19,640.97	989.70	16,102.16	694.44	3,538.81	41	18
2021-22	3,544.38	24,142.16	1,612.23	19,455.14	1,932.15	4,687.02	55	19
Total	10,578.88	1,00,529.33	5,926.73	82,829.03	4,652.15	17,700.30	44	18

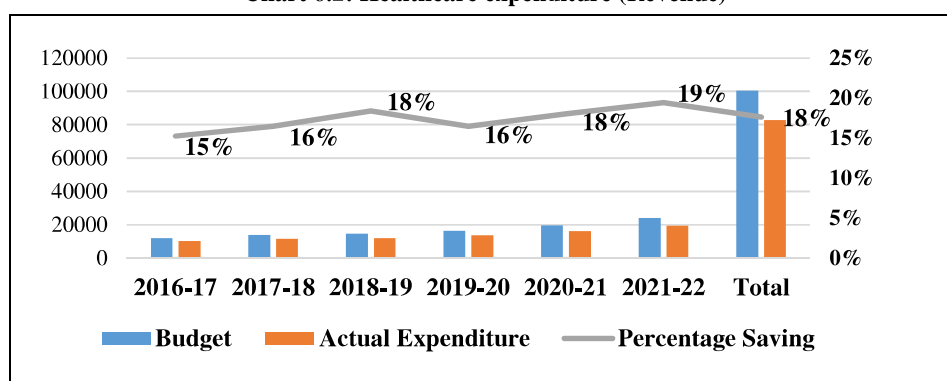
Source: Budget estimates from Appropriation Accounts of Government of Maharashtra for the respective years and actual expenditure from Finance Accounts of Government of Maharashtra for the respective years

Chart 6.1: Healthcare expenditure (Capital)



Source: Budget estimates from Appropriation Accounts of Government of Maharashtra for the respective years and actual expenditure from Finance Accounts of Government of Maharashtra for the respective years.

Chart 6.2: Healthcare expenditure (Revenue)



Source: Budget estimates from Appropriation Accounts of Government of Maharashtra for the respective years and actual expenditure from Finance Accounts of Government of Maharashtra for the respective years.

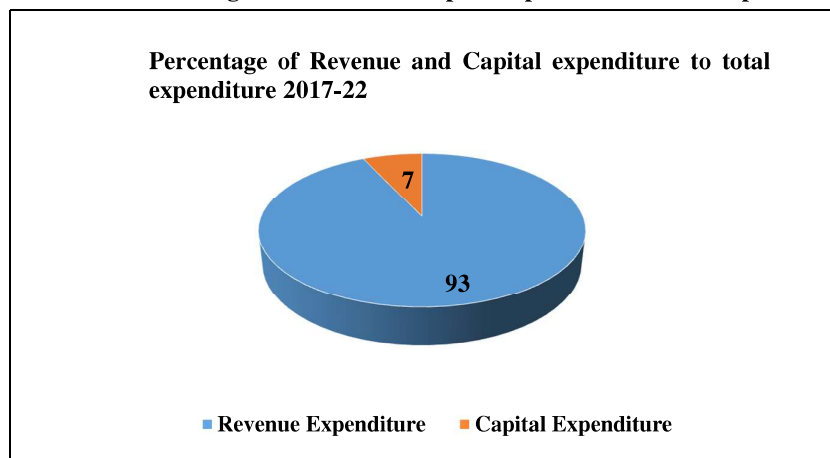
- Out of the total budget (PHD and MEDD) of ₹ 1.11 lakh crore from 2016-17 to 2021-22, the expenditure incurred was ₹ 0.89 lakh crore. Thus, there was a saving of ₹ 0.22 lakh crore (20 per cent) during 2016-17 to 2021-22 under health sector in the State.
- The overall savings under capital head was 44 per cent and savings under revenue head was 18 per cent.
- Savings under revenue head were attributed⁶² to the reduction of expenditure under 'Salaries' due to posts lying vacant, non-clearance of bills, non-supply of material and equipment, non-completion of tender procedure within stipulated time. Saving was also attributed to reduction in release of central grants leading to corresponding reduction in release of State share. During 2019-20 and 2020-21, the budgeted outlay could not be utilised on account of pending bills due to COVID-19 pandemic. Savings under capital head during 2017-18 and 2018-19 were primarily due to non-receipt of administrative approval for the Schemes.

⁶² Reasons furnished by the Departments for the savings vis-à-vis the budget in respective years' Appropriation Accounts.

- The percentage of revenue expenditure to total expenditure on health during 2016-17 to 2021-22 ranged between 92.03 *per cent* (2018-19) and 95.32 *per cent* (2017-18) while the percentage of capital expenditure to total expenditure ranged between 4.68 *per cent* (2017-18) and 7.97 *per cent* (2018-19). Out of the total expenditure of ₹ 88,755.76 crore, the revenue expenditure was ₹ 82,829.03 crore (93.32 *per cent*) and capital expenditure was ₹ 5,926.73 crore (6.68 *per cent*) during 2016-17 to 2021-22.

This indicated low priority on the creation and augmentation of existing infrastructure facilities in the State as shown in **Chart 6.3**.

Chart 6.3.: Percentage of revenue and capital expenditure to total expenditure



Source: Budget estimates from Appropriation Accounts of Government of Maharashtra for the respective years and actual expenditure from Finance Accounts of Government of Maharashtra for the respective years

Audit also noticed release of the funds at the fag end of the financial year especially under the capital head as shown in **Table 6.2**.

Table 6.2: Expenditure at the fag end of the financial year
(₹ in crore)

Year	Category	Total yearly Expenditure	Expenditure in March	Percentage of March Expenditure to total expenditure
2016-17	Revenue	10,121.43	1,846.21	18
	Capital	602.37	293.34	49
2017-18	Revenue	11,604.72	2,704.06	23
	Capital	569.85	328.14	58
2018-19	Revenue	11,969.31	2,855.1	24
	Capital	1,036.72	743.15	72
2019-20	Revenue	13,576.27	3,068.87	23
	Capital	1,115.86	881.32	79
2020-21	Revenue	16,102.16	4,437.69	28
	Capital	989.70	704.77	71
2021-22	Revenue	19,455.14	6,075.92	31
	Capital	1,612.23	1,094.76	68
Total	Revenue	82,829.03	20,987.85	25
	Capital	5,926.73	4,045.48	68

Source: Total yearly expenditure from Appropriation Accounts of the Government of Maharashtra for the respective years and figures of expenditure in March compiled from Voucher Level Data

As seen from **Table 6.2**, the percentage of expenditure in the month of March in respect of capital and revenue expenditure during 2016-17 to 2021-22 was 68 *per cent* and 25 *per cent* respectively. Significant quantum of expenditure in the last month of financial year was indicative of poor overall financial management

Persistent savings as shown in **Table 6.1** and significant quantum of expenditure in the last month of financial year as shown in **Table 6.2** were indicative of poor overall financial management.

Recommendation 12: Government may ensure that funds are made available throughout the year to avoid rush of expenditure in March and also ensure utilisation of available funds.

6.2 Adequacy of funds for Healthcare

The NHP required the State Governments to increase their commitment to the health sector to more than eight *per cent* of the budget by 2020. The budgetary outlay on health *vis-à-vis* the total budgetary outlay of the State during 2016-17 to 2021-22 is shown in **Table 6.3** and depicted in **Chart 6.4**.

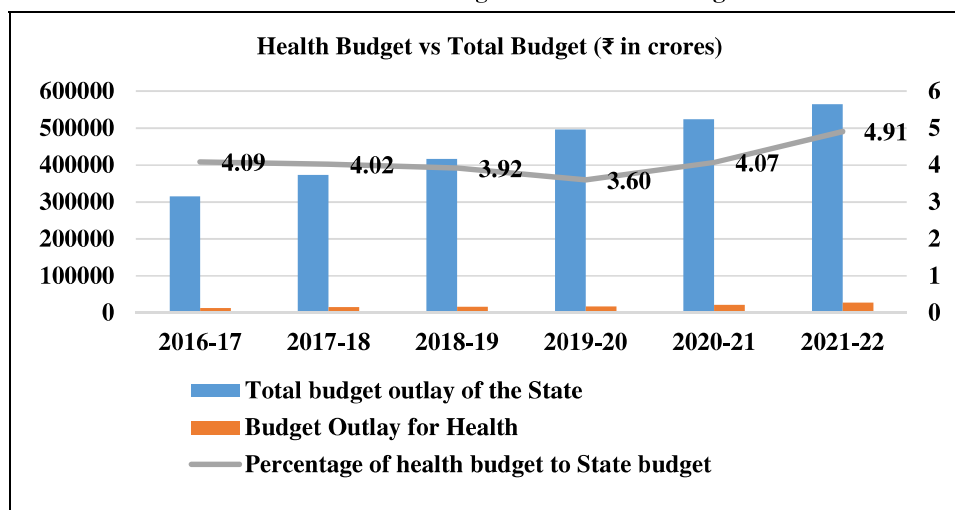
Table 6.3: The budgetary outlay on health *vis-à-vis* total budgetary outlay of the State during 2016-17 to 2021-22

(₹ in crore)

Year	Total budget outlay of the State	Budget Outlay for Health	Percentage of health budget to State budget
2016-17	3,14,982.43	12,872.98	4.09
2017-18	3,73,033.87	14,993.96	4.02
2018-19	4,16,791.37	16,317.61	3.92
2019-20	4,97,176.38	17,912.01	3.60
2020-21	5,24,289.56	21,325.11	4.07
2021-22	5,64,386.70	27,686.54	4.91

Source: Appropriation Accounts of the Government of Maharashtra for the respective years

Chart 6.4: Health Budget *vis-à-vis* Total Budget



Source: Appropriation Accounts of the Government of Maharashtra for the respective years

As seen from **Table 6.3**, the percentage of health budget to total State budget showed a marginal increase from 4.09 *per cent* in 2016-17 to 4.91 *per cent* in 2021-22. However, the percentage of the health budget to the total State budget

as of March 2022 at 4.91 *per cent* was significantly less than the target of more than eight *per cent* as laid down under the NHP.

Key health financing indicators as per the National Health Account Estimates prepared by the Ministry of Health and Family Welfare, GoI (available upto 2019-20) for the State are shown in **Table 6.4**.

Table 6.4: Key financing indicators in the State during 2016-17 to 2019-20

Year	Estimated Total Health Expenditure (THE) ⁶³		Estimated Government Health Expenditure (GHE) ⁶⁴			Estimated Out of pocket expenditure ⁶⁵		
	₹ in crore	Percentage to GSDP	₹ in crore	Percentage to THE	Percentage to GSDP	₹ in crore	Percentage to THE	Percentage to GSDP
2016-17	63,046	2.9	14,708	23.30	0.7	35,771	56.7	1.6
2017-18	63,350	2.6	16,406	25.90	0.7	31,092	49.1	1.3
2018-19	66,703	2.6	17,934	26.90	0.7	32,251	48.4	1.3
2019-20	77,501	2.8	20,606	26.60	0.8	34,177	44.1	1.2

Source: National Health Account Estimates prepared by the Ministry of Health and Family Welfare, Government of India of respective years (last published in April 2023 for the year 2019-20)

As seen from **Table 6.4**, the estimated THE and the estimated GHE increased in absolute terms during 2016-17 to 2019-20 in the State. The percentage of estimated GHE to estimated THE also increased from 23.30 *per cent* (2016-17) to 26.60 *per cent* (2019-20). However, the estimated THE as a percentage of GSDP decreased from 2.9 *per cent* (2016-17) to 2.8 *per cent* (2019-20) in the State while the estimated GHE as a percentage of GSDP remained constant at 0.7 *per cent* during 2016-17 to 2018-19 and it increased to 0.8 *per cent* during 2019-20 in the State.

Out of pocket expenditure is directly made by households at the point of receiving healthcare and indicates the extent of financial protection available for households towards healthcare payments. As seen from **Table 6.4**, though the percentage of estimated out-of-pocket expenditure to the estimated THE decreased in the State during 2016-17 to 2019-20, it constituted 44.10 *per cent* of THE during 2019-20 indicating low financial protection available to households towards healthcare payments in the State. In the survey of 690 in-patients conducted by Audit, 102 in-patients (15 *per cent*) responded that they had to incur out of pocket expenditure on medicines, diagnostic tests/lab tests as the same was not provided by HCIs.

Recommendation 13: Government may take necessary steps to increase the budgetary allocation for the health sector as a percentage of State Budget in line with the National Health Policy.

⁶³ Total Health Expenditure (THE) of a State includes health expenditure by all government agencies including quasi-governmental organisations and donors in case funds are channeled through government organisations, all household health expenditures, all expenditures by Enterprises, Not for profit institutions serving households and external donors.

⁶⁴ Government Health Expenditure constitutes spending under all schemes funded and managed by Union, State, and Local Governments including quasi-Governmental organisations and donors in case funds are channeled through Government organisations.

⁶⁵ Out of pocket expenditure is directly made by households at the point of receiving healthcare and indicate the extent of financial protection available to households towards healthcare payments.

6.3 Retention of funds by Zilla Parishad

The Chief Accounts and Finance Officer, Zilla Parishad draws funds from the budget of PHD (received as grant-in-aid) for incurring the expenditure of District Health Officer (DHO), Zilla Parishad.

The Finance Department, Government of Maharashtra *vide* Government Resolution permitted (June 2008) the local bodies to incur the expenditure upto 31 March of the next financial year. The Finance Department further permitted (September 2021) to utilise the funds drawn for the year 2019-20 and 2020-21 till 31 March 2022.

The District Health Offices of Nanded and Jalgaon districts, received ₹ 115.23⁶⁶ crore during 2019-20 to 2020-21 which had to be utilised till March 2022. Audit noticed that out ₹ 115.23 crore, an amount of ₹ 20.63 crore was neither utilised nor surrendered to the Government as of May 2022 and was lying idle with both the Zilla Parishads.

The District Health Officers of Nanded and Jalgaon stated (May 2022) that the unspent funds would be reconciled and surrendered to the Government.

6.4 Pending Abstract Contingent bills

As per the provision contained in Rules 302, 303 and 304 of Maharashtra Treasury Rules, 1968, except in the case of contingencies requiring countersignature before payment, contingent charges may be drawn from the treasury by presenting abstract contingent bills (AC bills) subject to presentation of detailed bills to the countersigning officer for countersignature. The Detailed Contingent (DC) bills containing vouchers in support of final expenditure towards the amount so drawn are to be submitted within 30 days to the Offices of the Accountant General (Accounts & Entitlements)-Mumbai/Nagpur or Pay and Accounts Office, Mumbai, as the case may be.

Under PHD, the Director of Health Services, Mumbai (DHS) draws AC bills each year and transfers the funds to HBPCL. Whereas, under MEDD, Director of Medical Education and Research, Mumbai (DMER) authorises the HCIs to draw AC bills and transfer funds to HBPCL. The status of pending AC bills in respect of PHD and MEDD is given in **Table 6.5**.

⁶⁶ 2019-20: ₹ 38.05 crore; 2020-21: ₹ 77.18 crore.

Table 6.5: Pending AC bills as of March 2022 in PHD and MEDD

Year	Pending AC bills	
	No.	Amount (₹ in crore)
Public Health Department		
Upto 2016-17	0	0
2017-18	35	107.65
2018-19	59	148.24
2019-20	20	124.67
2020-21	44	557.73
2021-22	46	253.03
Total	204	1,191.32
Medical Education and Drugs Department		
Upto 2016-17	46	3.30
2017-18	24	111.78
2018-19	135	277.09
2019-20	111	578.59
2020-21	179	642.84
2021-22	176	804.59
Total	671	2,418.19
Grand total	875	3,609.51

Source: Information received from the Accountant General (Accounts & Entitlements)-I, Maharashtra, Mumbai

As seen from **Table 6.5**, the pending AC bills in PHD and MEDD as of March 2022 was ₹ 3,609.51 crore.

During 2017-18 to 2021-22, an amount of ₹ 4,298.05 crore was received by HBPCL for centralised purchase from PHD and MEDD. Out of this, HBPCL incurred an expenditure of ₹ 2,086.12 crore on procurement of medicines and equipment. An amount of ₹ 159.65 crore was refunded by HBPCL to PHD and MEDD while the balance amount of ₹ 2,052.28 crore (48 *per cent*) was pending with HBPCL.

6.5 Retention of excess amount for local purchase

PHD, GoM *vide* Government Resolution (GR) stipulated (July 2017) centralised purchase of medicines, equipment and consumables in the State through HBPCL. As per GR, 90 *per cent* of the grant released for purchase of medicines and consumables was required to be transferred by the procuring HCIs to HBPCL at the beginning of every financial year. The balance 10 *per cent* of grant could be used by HCIs for local purchase.

In PHD, DHS transferred 90 *per cent* of the grant to HBPCL and disbursed the remaining 10 *per cent* to the HCIs for local purchase. Whereas in MEDD, the HCIs drew funds through AC bills and transferred to HBPCL.

Scrutiny of records in test-checked HCIs under MEDD revealed that in nine HCIs out of 12 HCIs had withdrawn ₹ 359.86 crore through AC bills during 2017-18 to 2021-22 for procurement of medicines and equipment. Audit noticed that these HCIs had retained more than 10 *per cent* for local purchase as shown in **Table 6.6**.

Table 6.6: Excess retention of funds for local purchase

(₹ in crore)

Sr. No.	Name of Health Care Institution	Grants Received	Grants transferred to HBPCL	Grants retained	Grants to be retained	Excess retention of grants for local purchase	Percentage of grants retained
1	Sir J.J. Group of Hospitals, Mumbai	101.88	44.30	57.58	10.19	47.39	56.52
2	Cama & Albless Hospital, Mumbai	16.19	11.65	4.54	1.62	2.92	28.66
3	St. Georges Hospital, Mumbai	20.78	7.25	13.53	2.08	11.45	65.11
4	G.T. Hospital, Mumbai	15.80	4.28	11.52	1.58	9.94	72.91
5	Government Medical College and Hospital, Chandrapur	8.49	1.65	6.84	0.85	5.99	80.57
6	Government Medical College and Hospital, Jalgaon	41.30	25.57	15.73	4.13	11.60	38.09
7	Government Medical College and Hospital, Nanded	98.18	69.56	28.62	9.82	18.80	29.15
8	Government Medical College and Hospital, Chhatrapati Sambhajanagar	55.43	22.38	33.05	5.54	27.51	59.64
9	Government Dental College and Hospital, Chhatrapati Sambhajanagar	1.81	0.61	1.20	0.18	1.02	66.3
Total		359.86	187.25	172.61	35.99	136.62	

Source: Information furnished by the HCIs concerned

As seen from **Table 6.6**, excess grant of ₹ 136.62 crore was retained by the nine HCIs against the stipulated retention of ₹ 35.99 crore (10 per cent) of the grant.

During exit conference, the Secretary, MEDD stated (January 2023) that the HCIs retained the higher amount to cover other contingencies.

6.6 National Health Mission

6.6.1 Short release of National Health Mission funds by GoI and State

The NHM is a centrally sponsored scheme with a cost-sharing arrangement of 60:40 between GoI and GoM. On approval of the State Programme Implementation Plan (SPIP) of NHM, GoI sanctions Resource Envelope (RE) which comprises of GoI own fund and corresponding share of the State Government.

As per the information furnished by State Health Society, NHM, Maharashtra, the year-wise allotment as per RE and funds released by GoI and State government during 2016-17 to 2021-22 are shown in **Table 6.7**.

Table 6.7: Funds released vis-à-vis the Resource Envelope sanctioned by GoI

(₹ in crore)

Year	Resource Envelope			Funds Released			Short released		
	Central Share	State Share	Total	Central Share	State Share	Total	Central Share	State Share	Total
2016-17	963.48	831.04	1,794.52	954.41	824.99	1,779.40	9.07	6.05	15.12
2017-18	1,036.38	1,060.03	2,096.41	964.51	976.05	1,940.56	71.87	83.98	155.85
2018-19	1,308.41	1,244.57	2,552.98	1,089.44	956.52	2,045.96	218.97	288.05	507.02
2019-20	1,535.57	1,556.19	3,091.76	1,384.29	1,150.00	2,534.29	151.28	406.19	557.47
2020-21	1,299.06	1,233.71	2,532.77	1,360.95	1,222.40	2,583.35	-61.89	11.31	-50.58
2021-22	1,510.04	1,292.57	2,802.61	1,067.97	1,179.79	2,247.76	442.07	112.78	554.85
Total	7,652.94	7,218.11	14,871.05	6,821.57	6,309.75	13,131.32	831.37	908.36	1,739.73

Source: Information furnished by the Mission Director, National Health Mission, Maharashtra

As seen from **Table 6.7**, as against the Resource Envelope of ₹ 14,871.05 crore, the release was ₹ 13,131.32 crore during 2016-17 to 2021-22. Thus, there was the short release of ₹ 1,739.93 crore (12 *per cent*) by GoI and the State Government.

The reasons for short-release were awaited from the Government (February 2024).

CHAPTER 7

Implementation of Centrally Sponsored Schemes

Chapter 7: Implementation of Centrally Sponsored Schemes

The objective of renovation/branding of sub-centres as Health and Wellness Centres was not fully achieved. Instances of underutilisation of funds under the National Rural Health Mission and National Urban Health Mission were also observed. Audit also noticed that the targets under National Leprosy Eradication Programme and National Tuberculosis Elimination Programme and Family Welfare Schemes under National Health Mission have not been fully achieved.

7.1 Introduction

The National Health Mission (NHM), a flagship programme of Government of India (GoI) comprises of two sub-missions viz., National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM) launched in April 2005 and May 2013 respectively. The aim of the NRHM was to provide accessible, affordable, accountable, effective and reliable healthcare facilities in the rural areas of the entire country, especially vulnerable group. Whereas the NUHM aimed to address the health concerns of the urban poor through facilitating equitable access to available health facilities by rationalising and strengthening the existing capacity.

The NHM supports States to strengthen their health systems so as to provide universal access to equitable, affordable and quality healthcare services. All centrally sponsored schemes related to health are under umbrella of NHM. Under the NHM, funds was provided in the ratio of 60:40 between GoI and GoM.

Apart from NHM, GoI also announced Ayushman Bharat Programme in February 2018 with two interconnected components—Ayushman Bharat- Health and Wellness Centres (AB-HWC) and Pradhan Mantri Jan Arogya Yojana (PMJAY).

Audit selected Ayushman Bharat- Health and Wellness Centres (AB-HWC) under Ayushman Bharat Programme and four schemes namely (i) National Leprosy Eradication Programme, (ii) National Tuberculosis Elimination Programme, (iii) Janani Shishu Suraksha Karyakram, and (iv) Janani Suraksha Yojana under NHM for scrutiny. In addition, *Maheer Ghar* Scheme, a concept of Government of Maharashtra (GoM) which was included under Programme Implementation Plan (PIP⁶⁷) of NHM was also covered in audit.

7.2 Ayushman Bharat Health and Wellness Centre

GoI announced (February 2018) Ayushman Bharat Programme with two interconnected components—Ayushman Bharat- Health and Wellness Centres (AB-HWC) and Pradhan Mantri Jan Arogya Yojana (PMJAY)⁶⁸. Under AB-HWC, Health and Wellness Centres (HWCs) were to be created to deliver Comprehensive Primary Health Care (CPHC), i.e., universal and free to users,

⁶⁷ Programme Implementation Plan is annual plan proposed by the State covering programme wise targets and requirement of funds for its implementation.

⁶⁸ PMJAY provides health insurance cover of ₹ five lakhs per year to over 10 crore poor and vulnerable families for seeking secondary and tertiary care

with a focus on wellness and the delivery of an expanded range of services closer to the community. The year-wise budget and expenditure incurred for AB-HWCs is shown in **Table 7.1**.

Table 7.1: Year-wise budget vis-à-vis expenditure under AB-HWCs
(₹ in crore)

Year	Budget	Expenditure	Savings	Percentage of savings over Budget
2018-19	27.09	18.99	8.10	30
2019-20	209.00	157.01	51.99	25
2020-21	217.90	217.90	0	0
2021-22	383.35	270.59	112.76	29
Total	837.34	664.49	172.85	21

Source: State Health Society, Maharashtra

As seen from **Table 7.1**, during 2018-19 to 2021-22, as against total budget of ₹ 837.34 crore, the expenditure incurred was ₹ 664.49 crore (79 per cent). Further, except 2020-21, there was saving of ₹ 172.85 crore during 2018-19 to 2021-22, which ranged between 25 per cent (2019-20) and 30 per cent (2018-19).

7.2.1 Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana

MoH&W, GoI launched (September 2018) Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) to provide health cover, *inter alia*, to families included in the Socio-Economic Caste Census (SECC), 2011. The health cover was ₹ five lakh per year per family. In Maharashtra, there were 83.73 lakh families under SECC. The expenditure under AB-PMJAY was shared between GoI and GoM in the ratio of 60:40.

The Scheme was implemented (September 2018) in the State through State Health Assurance Society (SHAS) constituted by PHD. Out of health cover of ₹ five lakh per year to the families included under AB-PMJAY, ₹ 1.5 lakh was covered through insurance mode and the remaining ₹ 3.5 lakh through assurance mode. Under insurance mode, the claim of a hospital which provided treatment to a beneficiary was settled by the insurance company whereas under assurance mode, it was settled by the SHAS.

Funds were transferred by the GoM to the SHAS for payment of insurance premium and settlement of claims under assurance mode. Funds received during 2018-19 to 2022-23 are shown in **Table 7.2**.

Table 7.2: Funds received and expenditure incurred by SHAS
(₹ in crore)

Year	GoI share	GoM share	Total funds available	Expenditure incurred
2018-19	253.77	40.00	293.77	293.77
2019-20	241.88	183.42	425.30	425.30
2020-21	220.79	259.36	480.15	480.15
2021-22	362.07	253.48	615.55	615.55
2022-23	388.03	301.49	689.52	689.52
Total	1,466.54	1,037.75	2,504.29	2,504.29

Source: Information furnished by SHAS

During the drive, SHAS could locate only 55.13 lakh families (2.35 crore beneficiaries) out of 83.73 lakh families in the SECC database. Out of these 2.35 crore beneficiaries, only 74.37 lakh beneficiaries were registered under

AB-PMJAY as of March 2022. Thus, 68 *per cent* of the beneficiaries located were not registered under AB-PMJAY.

As per the guidelines on the process of empanelment for hospitals issued by National Health Authority, GoI, the State Government was required to ensure that maximum number of eligible hospitals participate under the scheme through IEC campaign and workshops. The PHD, GoM, *vide* Government Resolution of February 2019, stipulated empanelment of minimum two hospitals per block in the State. The maximum number of hospitals that could be empanelled was fixed at 1,000.

Audit noticed that total 1,000 hospitals were empaneled in the State, however, out of 358 blocks in 36 districts, 98 blocks in 29 districts did not have any empaneled hospital as of March 2022.

Reply of Government was awaited (April 2024).

7.3 National Health Mission

NHM is a major instrument of financing and support to the States to strengthen public health systems and healthcare delivery. State Health Society (SHS) headed by the Mission Director was the implementation agency for the NHM in the State. Financing to the States was based on the State's Programme Implementation Plan (SPIP). The SPIP comprises of following major pools for funding:

A. NRHM RCH⁶⁹ Flexible Pool: This flexi pool addresses needs of health systems strengthening and Reproductive, Maternal, Newborn, Child health and Adolescent (RMNCH+A) of the States.

B. National Urban Health Mission Flexible Pool: This pool includes expenditure on delivery of services, human resources, infrastructure, training, *etc.*, related to urban health centres covered under NUHM.

C. Flexible Pool for Communicable Diseases: This flexi pool includes Integrated Disease Surveillance Programme, National Vector Borne Disease Control Programme, National Leprosy Eradication Programme, Revised National Tuberculosis Control Programme and National Viral Hepatitis Control Programme.

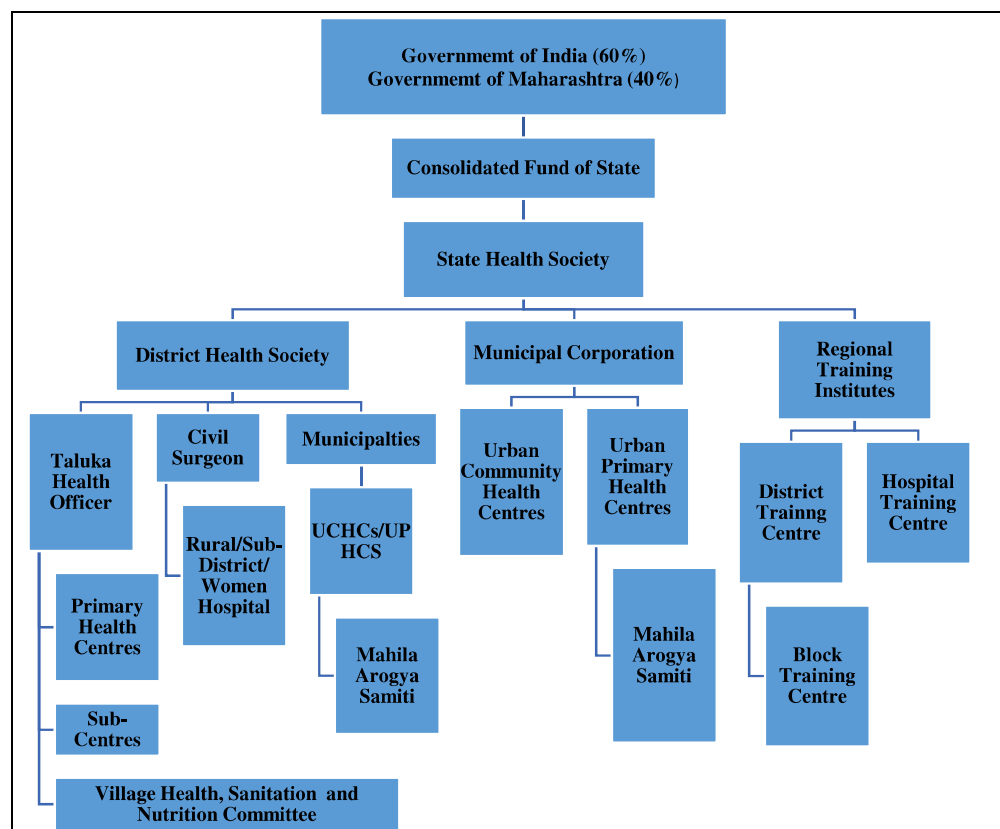
D. Flexible Pool for Non-communicable Diseases: This flexi pool includes National Programme for Control of Blindness, National Mental Health Programme, National Programme for the Healthcare of the Elderly, National Tobacco Control Programme and National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke.

E. Infrastructure Maintenance: Under this component, financial support is provided to States to meet salary requirement of schemes, Auxiliary nurse and midwife training schools, health & family welfare training centres and training of multi-purpose workers, *etc.*

⁶⁹ Reproductive Child Health.

The fund flow of NHM is depicted in **Chart 7.1**

Chart 7.1: Fund-flow of NHM



Source: Information furnished by the Mission Director, Nation Health Mission

Audit observations based on examination of test-checked components of NHM in the State are discussed in succeeding paragraphs.

7.3.1 Delay in submission of State Programme Implementation Plan

The vision of the National Health Mission (NHM) was the attainment of universal access to equitable, affordable and quality healthcare services, accountable and responsive to people's needs, with effective inter-sectoral convergent action to address the wider social determinants of health.

The financing to the States was based on the SPIP. The SPIP prepared by the States annually helps them in identifying and quantifying their targets required for programme implementation for the proposed year. Paragraph 2.6 of Operational Guidelines for Financial Management of National Rural Health Mission (Operational guidelines) stipulates that State PIP was to be submitted by 31 December every year by GoM to GoI. Further, GoI was required to approve State PIP by 28 February each year.

Audit observed that there were delays in submission of State PIP by GoM to GoI during 2016-17 to 2021-22 as shown in **Table 7.3**.

Table 7.3: Delay in submission and approval of SPIP by GoM

Financial Year	Date of submission of State PIP by GoM to GoI	Delay in days (calculated from 31 December of the concerned year)
2016-17	22.02.2016	52
2017-18	24.03.2017	82
2018-19	01.02.2018	31
2019-20	23.01.2019	22
2020-21	27.12.2019	NIL
2021-22	03.02.2021	33

Source: Information furnished by the Mission Director, National Health Mission, Maharashtra

As seen from **Table 7.3**, except 2020-21 there was delay at GoM level in submission of State PIP to GoI, which ranged between 22 days (2019-20) and 82 days (2017-18).

7.3.2 Utilisation of funds under NHM

Under NHM, a detailed planning and budgeting exercise was required to be taken up every year to fix the annual targets for programme implementation. To implement and monitor activities effectively, each implementing agency in the State was required to prepare annual plan of action. This indicated the physical targets and budgetary estimates in accordance with the approved pattern of assistance under the NHM. This also covered all aspects of the programme activities for the period April to March each year and was sent by each State/UT to the MoH&FW, GoI, for approval well before the start of the year. It was important that the action plan was realistic, practically implementable and correlates the physical outputs with the cost estimates.

Under NHM, funds were released based on the State PIP submitted by the State Government. On approval of State PIP, GoI approves the Records of Proceedings and sanctions Resource Envelope which comprises of GoI's own funds, corresponding share of the State Government and unspent balance available with the State.

As per the approvals given by the MoH&FW, GoI any unspent balance of the previous year (s) available under NHM with the State would also become a part of the Resource Envelope of the succeeding year. The funds not utilised by the State were, thus, adjusted by the GoI while releasing funds.

The details of funds available and expenditure incurred during 2016-17 to 2021-22 under NHM are shown in **Table 7.4**.

Table 7.4: Funds available and expenditure incurred during 2016-17 to 2021-22

(₹ in crore)

Year	Approved PIP	Opening balance	Central share received	State Share received	Interest	Total funds available	Expenditure	Refund	Closing balance (per cent)
2016-17	2,589.65	386.31	725.24	1,055.44	12.76	2,179.75	1,267.51	29.63	882.61 (40)
2017-18	2,584.60	882.61	1,160.71	1,083.07	18.51	3,144.90	1,485.14	42.84	1,616.92 (51)
2018-19	3,394.07	1,616.91	1,005.91	1,019.43	35.51	3,677.76	2,064.72	0	1,613.04 (44)
2019-20	4,719.63	1,613.05	1,155.90	900.17	33.69	3,702.81	2,279.90	0	1,422.91 (38)
2020-21	4,510.57	1,422.90	1,451.04	1,051.53	96.36	4,021.83	2,693.88	0	1,327.95 (33)
2021-22	4,473.75	1,327.96	1,023.86	1,196.93	145.31	3,694.06	3,005.27	0	688.79 (19)

Source: State Health Society, Maharashtra

As seen from **Table 7.4**, the Mission Director, State Health Society failed to utilise available funds in all the years during 2016-17 to 2021-22, which ranged between 19 *per cent* in 2021-22 and 51 *per cent* in 2017-18.

7.4 National Urban Health Mission

To address healthcare needs of urban population, particularly urban poor, the MoH&FW, GoI had formulated NUHM as a Sub-Mission under an over-arching NHM during the 12th Five Year Plan. NUHM was approved by the Union Cabinet on 1 May 2013 for providing equitable and quality primary healthcare services to the urban population with special focus on urban poor and vulnerable sections of the Society. NUHM sought to improve the health status by facilitating their access to quality primary healthcare.

The funding pattern under the NUHM was in the ratio of 60:40 between GoI and GoM. The GoM released entire funds (Central and State) to State Health Society (SHS), who in turn, released funds to Municipal Corporations and Municipal Councils having population above 50,000, for implementation.

7.4.1 Utilisation of National Urban Health Mission Funds

The details of the funds available and expenditure incurred under NUHM from 2016-17 to 2021-22 to GoM are shown in **Table 7.5**.

Table 7.5: Funds available and expenditure incurred under NUHM

(₹ in crore)

Year	Opening balance	Central share received	State share received	Interest	Total funds available	Expenditure	Refund	Closing balance (per cent)
2016-17	286.75	61.38	0	0	348.13	84.94	0	263.19 (76)
2017-18	263.20	66.33	0	0	329.53	111.04	0	218.49 (66)
2018-19	218.49	116.97	0	0	335.46	133.13	0	202.33 (60)
2019-20	202.33	56.39	0	0	258.72	131.13	0	127.59 (49)
2020-21	127.59	234.62	0	0	362.21	200.12	0	162.09 (45)
2021-22	162.09	43.54	130.33	17.53	353.49	289.07	0	64.42 (18)

Source: State Health Society, Maharashtra

As seen from **Table 7.5**, the Mission Director, State Health Society failed to utilise available funds in all the years during 2016-17 to 2021-22, which ranged between 18 *per cent* in 2021-22 and 76 *per cent* in 2016-17.

Scrutiny of records in nine test-checked Municipal Corporation in selected districts revealed that there was saving which ranged from 10 *per cent* in Kolhapur Municipal Corporation to 87 *per cent* in Amravati Municipal Corporation during the financial years 2016-17 to 2020-21 (**Appendix 7.1**).

7.5 National Rural Health Mission

The Ministry of Health and Family Welfare (MoHFW) was the nodal agency for running the NRHM programme. The budget/target of participating States received was reviewed, approved and funds disbursed by MoHFW.

The funds received by the State were further disbursed to the District Health Societies in accordance with the requirements stated in the respective District Health Annual Plans (DHAP). The districts disburse funds to the blocks which further disburse funds to various implementing units (CHCs/PHCs/SCs/Village

Health Sanitation and Nutrition Committee) for programme implementation activities.

7.5.1 Utilisation of National Rural Health Mission Funds

The details of the funds released under NRHM from 2016-17 to 2021-22 to GoM are shown in **Table 7.6**.

Table 7.6: Funds available and expenditure incurred under NRHM

(₹ in crore)

Year	Opening balance	Central share received	State share received	Interest	Total funds available	Expenditure	Refund	Closing balance (per cent)
2016-17	99.56	663.86	1055.44	12.76	1831.62	1182.57	29.63	619.42 (34)
2017-18	619.41	1094.38	1083.07	18.51	2815.37	1374.10	42.84	1398.43 (50)
2018-19	1398.42	888.94	1019.43	35.51	3342.3	1931.59	0	1410.71 (42)
2019-20	1410.72	1099.51	900.17	33.69	3444.09	2148.77	0	1295.32 (38)
2020-21	1295.31	1216.42	1051.53	96.36	3659.62	2493.76	0	1165.86 (32)
2021-22	1165.87	980.32	1066.60	127.78	3340.57	2716.20	0	624.37 (19)

Source: State Health Society, Maharashtra

As seen from **Table 7.6**, the Mission Director, State Health Society failed to utilise the available funds in any of the years during 2016-17 to 2021-22, which ranged between 19 *per cent* in 2021-22 and 50 *per cent* in 2017-18.

Scrutiny of test-checked units as detailed in **Appendix 7.2** revealed that the savings in available funds under the programme ranged from three *per cent* in Amravati, Kolhapur and Nanded districts to 54 *per cent* in Chhatrapati Sambhajnagar district during 2016-17 to 2021-22.

Recommendation 14: Government may ensure proper utilisation of the available NHM funds, minimise the savings and strive to improve health benefits to the public.

7.6 National Leprosy Eradication Programme

The National Leprosy Eradication Programme (NLEP) is a centrally sponsored scheme under the umbrella of NHM. This Programme was implemented by the Joint Director of Health Services (Leprosy & TB) Pune in the State as per GoI guidelines. Audit observations on funding and performance of programme are discussed in succeeding paragraphs.

7.6.1 Utilisation of funds under National Leprosy Eradication Programme

Under the NLEP, the district units prepare the annual district health plan and submits to the State Health Society, NLEP, which forwards it to State Health Mission (SHM). The SHM allocates the funds to State Health Society, NLEP, in accordance with the Annual Programme Implementation Plan which further distributes it to the district units for implementation of the programme.

Scrutiny of SPIP prepared by the State Health Society, NLEP revealed saving of funds ranging from 18 *per cent* (2019-20) to 52 *per cent* (2020-21) as shown in **Table 7.7**.

Table 7.7: Utilisation of Funds under NLEP

(₹ in crore)

Year	Approved Budget	Expenditure	(+) Excess/ (-) Saving	Percentage of (+) Excess/ (-) Saving
2016-17	14.66	10.86	-3.8	-26
2017-18	11.10	17.59	6.49	58
2018-19	22.42	17.59	-4.83	-22
2019-20	25.59	20.86	-4.73	-18
2020-21	16.62	7.96	-8.66	-52
2021-22	29.60	16.28	-13.32	-45
Total	119.99	91.14	-28.85	-24

Source: Data furnished by State Health Society, Maharashtra

7.6.2 Implementation of National Leprosy Eradication Programme

The NLEP's mission was to provide quality leprosy services free of cost to all sections of the population, with easy accessibility, through the integrated healthcare system, including care for disability after cure of the disease. The objective of the programme was to reduce the prevalence rate to less than one per 10,000 population at sub-national and district levels and to reduce Grade II deformity cases to less than one case per million population at the national level.

Further, the Global Leprosy Strategy 2016-17 to 2019-20 aimed at early detection of leprosy disease and prompt treatment to prevent deformity and reduce transmission of infection in the community. Status of the implementation of NLEP in Maharashtra as of March 2022, is shown in **Table 7.8**.

Table 7.8: Status of the implementation of NLEP in Maharashtra as of March 2022

Sr. No.	Indicators	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
1	New cases detected	15,012	16,065	15,299	16,531	12,438	14,520
	Annual New Case Detection (NCD) rate/lakh	12.41	13.08	12.28	13.07	09.55	11.14
2	Total Active Cases	9,887	9,836	9,390	10,203	10,417	11,607
	Prevalence Rate/10,000	0.82	0.80	0.75	0.81	0.80	0.89
3	Child Cases among NCD	1,528	1,624	1,358	1,360	922	1,092
	Percentage of Child Cases among NCD	10.18	10.11	8.88	8.23	7.41	7.52
4	Grade II Deformity Cases among NCD	452	444	402	258	160	141
	Grade II Deformity Cases per 10 lakh population	3.75	3.62	3.23	2.04	1.23	1.08

Source: Data furnished by Joint Director of Leprosy and Tuberculosis, Pune

Though the State had achieved Leprosy elimination⁷⁰ in September 2005, scrutiny of progress report of the NLEP scheme for the year 2021-22 revealed the following:

- The prevalence rate was still more than one per 10,000 population in 15⁷¹ districts.

⁷⁰ Elimination means to reduce the prevalence rate of the State to less than one per 10,000 population.

⁷¹ Gadchiroli (4.95), Chandrapur (3.54), Palghar (3.12), Gondia (2.60), Bhandara (2.42), Nandurabar (2.15), Dhule (1.64), Raigad (1.52), Wardha (1.42), Dharashiv (1.36), Yavatmal (1.31), Amravati (1.16), Nashik (1.07), Washim (1.02) and Jalgaon (1.00).

- Grade II disability amongst newly detected cases was still above one per million population in the State in 13⁷² districts. Further it was also noticed that the rate of Grade II disability amongst newly detected cases was 1.08 per million population.

7.7 National Tuberculosis Elimination Programme

The National Tuberculosis Elimination Programme (NTEP) is a Centrally Sponsored Scheme, implemented under the umbrella of NHM with a vision of Tuberculosis Free India, where free diagnostic and quality-assured treatment is provided to all TB patients.

The National Tuberculosis Programme of India (NTP) was initiated in 1962 and further based on the internationally recommended Directly Observed Treatment Short-course (DOTS) strategy, the Revised National TB Control Programme (RNTCP), was launched in 1997 across the country. The Standards for TB Care in India (STCI) were published jointly by RNTCP and the World Health Organization in 2014, which lays down uniform standards for TB care for all stakeholders in the country.

The National Strategic Plan (2017-25) was approved by MoH&FW, GoI on 08 May 2017 and was operational since then in the entire country with the goal of eradicating TB by 2025. In January 2020, the programme was renamed as National Tuberculosis Elimination Programme (NTEP).

7.7.1 Implementation of National Tuberculosis Elimination Programme

(a) Utilisation of funds under National Tuberculosis Elimination Programme

Under the NTEP, the district units prepare the annual district health plan and submits to the State Health Society, NTEP, which forwards it to State Health Mission (SHM). The SHM allocates the funds to State Health Society, NTEP, in accordance with the Annual Programme Implementation Plan which further distributes it to the district units for implementation of the programme.

Scrutiny of State PIP of NTEP, revealed saving of funds ranging from seven per cent (2017-18) to 50 per cent (2019-20) as shown in **Table 7.9**.

Table 7.9: Utilisation of Funds under NTEP

(₹ in crore)				
Year	Approved Budget	Expenditure	(+)Excess/ (-) Saving	Percentage of (+)Excess/ (-) Saving
2016-17	77.73	63.69	-14.04	-18
2017-18	76.21	70.54	-5.67	-7
2018-19	86.24	70.54	-15.70	-18
2019-20	247.53	125.00	-122.53	-50
2020-21	171.37	139.20	-32.17	-19
2021-22	269.68	158.96	-110.72	-41
Total	928.76	627.93	-300.83	-32

Source: Data furnished by State Health Society, Maharashtra

⁷² Nandurbar (9.43), Raigad (6.55), Gadchiroli (3.22), Sindhudurg (3.05), Mumbai (2.90), Dhule (2.10), Amravati (1.79), Palghar (1.67), Hingoli (1.46), Bhandara (1.44), Akola (1.42), Latur (1.41), Jalgaon (1.23).

(b) Shortfall in Contact tracing

TB contacts are people who have close contact with TB patients. As they are at high risk for infection (and in line with the Stop TB strategy), TB contacts should be investigated systematically and actively for TB infection and disease.

As per the guidelines of National Strategic Plan for TB (2017-2025), since transmission can happen from index case to the contact any time (before diagnosis or during treatment), all contacts of TB patients must be evaluated. However, scrutiny revealed that there was shortfall ranging between eight and 71 *per cent* in the State in contact tracing during the calendar year 2018 to 2022. The shortfall in selected districts is detailed in **Table 7.10**.

Table 7.10: Shortfall in Contact tracing

Selected districts and the State	Shortfall in Contact tracing in per cent out of TB patients notified in the State				
	2018	2019	2020	2021	2022
Amravati	62	32	10	27	14
Chhatrapati Sambhajnagar	74	36	24	13	7
Chandrapur	55	32	15	8	3
Jalgaon	75	11	7	8	5
Kolhapur	69	36	13	11	3
Nanded	90	64	27	24	13
Pune	76	46	17	22	14
Mumbai	62	30	14	11	3
Overall State percentage	71	38	16	16	8

Source: Data furnished by Joint Director, Health Services, Tuberculosis and Leprosy, Pune

Non-tracing of all contacts increases the risk of spread of TB infection among the population.

(c) TB preventive therapy to children

As per National Strategic Plan for TB (2017-2025), children are more susceptible to TB infection, more likely to develop active TB disease soon after infection and are more likely to develop severe forms of disseminated TB. Children less than six years of age, who are in close contact with a TB patient, should be evaluated for active TB by a medical officer/paediatrician. After excluding active TB, the children should be given INH⁷³ preventive therapy (chemoprophylaxis) irrespective of their BCG or nutritional status.

In Maharashtra, it was observed that INH preventive therapy was given to only four *per cent* to 85 *per cent* of eligible children of less than six years during calendar year 2018 to 2022. The overall status for the State and selected districts are given in **Table 7.11**.

⁷³ Isoniazid is the drug used for TB preventive Therapy.

Table 7.11: Percentage of eligible children who were given INH preventive therapy

Selected districts and the State	Percentage of eligible children who were given INH preventive therapy				
	2018	2019	2020	2021	2022
Amravati	3	89	96	39	57
Chhatrapati Sambhajnagar	1	92	64	52	57
Chandrapur	7	79	83	74	78
Jalgaon	8	88	83	55	47
Kolhapur	2	100	100	65	90
Nanded	5	90	86	67	51
Pune	2	72	68	31	56
Mumbai	3	80	39	19	32
Overall State percentage	4	85	69	43	59

Source: Data furnished by Joint Director, Health Services, Tuberculosis and Leprosy, Pune

The Joint Director, Health Services (TB and Leprosy) attributed the shortfall in treatment to acute shortage of INH supply by Central TB Division, Delhi during 2019-20. However, the State made provision for INH through local procurement. It was also stated that in some cases there was problem in acceptance of therapy by patients and reluctance of private practitioner for offering preventive therapy.

The fact remained that a high percentage of eligible children ranging between 15 *per cent* (2019) to 96 *per cent* (2018) were not provided the preventive therapy in the State which may result in the development of active TB disease in the children.

(d) Direct Benefit Transfer under Nikshay Poshan Yojana

The National Strategic Plan (2017-2025) was committed to provide Direct Benefit Transfer (DBT) for all TB patients in order to support their nutrition needs and help address the financial burden of tuberculosis for the affected households. A scheme called “Nikshay Poshan Yojana” was introduced in April 2018 under the National TB Elimination Programme, Ministry of Health and Family Welfare, Government of India. This scheme was aimed at providing incentive to TB patients for their nutrition.

All TB patients notified under Nikshay Scheme were eligible to get ₹ 500 per month for the duration of their treatment. The TB patients taking treatment from both public sector facilities and private sector providers were eligible to receive incentives under this scheme.

Scrutiny of records in the office of the Joint Director, Health Services (TB and Leprosy), Pune, revealed that only 46 *per cent* to 79 *per cent* of eligible beneficiaries were paid incentive under the Nikshay Scheme during the calendar years 2018 to 2022 in the State. The overall position of payment of incentive in the State and in the selected districts is shown in **Table 7.12**.

Table 7.12: Percentage of eligible beneficiaries paid incentive

Selected districts and the State	Percentage of eligible beneficiaries paid incentive				
	2018	2019	2020	2021	2022
Amravati	89	80	71	46	86
Chhatrapati Sambhajanagar	70	71	62	53	80
Chandrapur	58	71	77	56	90
Jalgaon	26	32	62	43	81
Kolhapur	34	61	79	45	88
Nanded	74	73	64	45	83
Pune	46	56	66	45	77
Mumbai	57	62	60	50	72
Maharashtra State	52	63	62	46	79

Source: Data furnished by Joint Director, Health Services, Tuberculosis and Leprosy, Pune

The Joint Director, Health Services (TB and Leprosy), Pune stated that the shortfall was due to non-receipt of details from all the beneficiaries, incorrect Account Number and IFSC of bank, shortage of funds in Single Nodal Account as well as some beneficiaries refusing to avail benefits.

7.8 Family Welfare Scheme under National Health Mission

Government of India launched a National Programme for Family Planning in 1952. Over the decades, the programme had undergone transformation in terms of policy and actual programme implementation. The programme was repositioned to achieve not only population stabilisation goals but also promote reproductive health and reduce maternal, infant and child mortality and morbidity. Two schemes viz., Janani Shishu Suraksha Karyakram and Janani Suraksha Yojana were implemented under Family Welfare Scheme.

7.8.1 Non-adherence to the guidelines for implementation of Janani Shishu Suraksha Karyakram

Janani Shishu Suraksha Karyakram (JSSK) launched in June 2011 was an initiative to assure free services to all pregnant women including normal deliveries, C-section, and treatment of sick newborn (up to 30 days after birth) in all Government health institutions across the State. JSSK stressed upon promotion of institutional deliveries and proper care of newborns in order to reduce maternal mortality rate and infant mortality rate.

Under the JSSK, pregnant women were entitled free and zero expense delivery, free drugs and consumables, free diagnostics, free diet during stay in the health institutions (up to three days for normal deliveries and up to seven days for caesarean deliveries), free provision of blood, free transport from home to health institutions, between facilities in case of referrals and drop back from institution to home.

The GoM instructed (November 2011) all stakeholders to implement the JSSK in all health facilities of GoM. Similarly, GoM, also directed (January 2012) all the Municipal Corporations (MC) to implement the scheme in their health facilities.

Scrutiny revealed the following:

- In three PHCs⁷⁴ of Jalgaon and Nanded districts, total 700 deliveries were done during 2016-17 to 2021-22, however, no diet was provided to all 700 women.

In reply, Medical Officers of PHCs of Jalgaon and Nanded districts stated that the diet would be provided hereafter.

- In three⁷⁵, out of 18 test-checked municipal hospitals/health centres, diet was not provided to pregnant women.

Medical Superintendent/Medical Officer of Nanded-Waghala Municipal Corporation accepted the fact. Secretary, Municipal Society (NHM), Pune Municipal Corporation stated that during 2016-17 to 2019-20 no budget provision for diet was made under PIP whereas in 2020-21 though budget provision made available, the same had not been spent.

7.8.2 Implementation of Janani Suraksha Yojana

Janani Suraksha Yojana (Scheme) was being implemented in the State since 2005. Under this Scheme, a pregnant woman belonging to SC, ST, below poverty line residing in rural or urban area delivering at home was entitled to ₹ 500 as incentive and pregnant women belonging to SC, ST, below poverty line staying in urban area and in rural area having normal delivery at hospital was entitled to ₹ 600 and ₹ 700 respectively. In case of C-section delivery, the entitlement was ₹ 1,500.

Scrutiny revealed the following:

- Incentive benefits were not provided to 230 beneficiaries in DBK Jain Hospital of Jalgaon Municipal Corporation and 134 beneficiaries in Nanded-Waghala Municipal Corporation during 2018-19 to 2021-22.

In reply, Medical Health Officers of Jalgaon and Nanded-Waghala Municipal Corporation stated that incentive benefits would be provided hereafter.

- In Amaravati, 6,961 out of 20,487 beneficiaries in municipal corporation area and 2,930 out of 65,374 beneficiaries in rural area did not receive incentive during 2016-17 to 2021-22.

In reply, Medical Officer, Municipal Corporation, Amravati attributed (May 2022) the non-disbursement of assistance to non-furnishing of proper documents like Janani Suraksha Yojana card, copy of bank passbook, ID proof, copy of discharge summary, etc.

- In Kolhapur district, District Health Society made payment at the rate of ₹ 2,200 per beneficiary instead of maximum entitlement of ₹ 1,500 per beneficiaries to 2,640 beneficiaries, who had undergone caesarean delivery, during 2017-18 to 2020-21 resulting in excess payment of ₹ 18.48 lakh.

In reply, District Health Officer, Zilla Parishad, Kolhapur stated that incentive benefits were made as per rules and guidelines of NHM. Reply is not acceptable

⁷⁴ (i) PHC, Mangrul, Jalgaon, (ii) PHC, Chandola Nanded and (iii) PHC, Malkoli Nanded.

⁷⁵ (i) Kamla Nehru Hospital, Pune Municipal Corporation; (ii) Shivajinagar Matrusева Kendra, Nanded Waghala Municipal Corporation and (iii) Hyderabad Urban Community Health Centre, Nanded Waghala Municipal Corporation.

as NHM guidelines provided for maximum incentive benefits of ₹ 1,500 per beneficiary.

- In 12⁷⁶ HCIs at Jalgaon and Nanded, the District Health Society made payment to 205 beneficiaries at higher rate during 2018-19 to 2021-22, which resulted in excess payment of ₹ 1.37 lakh.

Recommendation 15: Government may make efforts to extend the benefits of the scheme to maximum beneficiaries.

7.9 Shortfall in implementation of Maher Ghar Scheme

Considering the difficulties in transportation of pregnant women for delivery in emergencies and difficulty in calling ambulances in tribal areas due to network issues, *Maher Ghar* Scheme (Scheme) was implemented in the State since 2011-12. The objective of the scheme was to ensure timely arrival of pregnant women in the PHC for safe delivery and to reduce maternal and neonatal morbidity and mortality. The Scheme was being implemented in 90 PHCs of nine tribal districts in the State. The Scheme was included in State PIP under the health system strengthening pool. Under the Scheme, a pregnant woman is admitted in *Maher Ghar* four to five days before her expected date of delivery.

The target and achievement under the Scheme are shown in **Table 7.13**.

Table 7.13: Targeted and achievement

Year	Targeted beneficiaries	Actual beneficiaries	Shortfall (per cent)
2017-18	4,320	2,435	1,885(44)
2018-19	2,448	2,649	Nil
2019-20	2,448	2,525	Nil
2020-21	2,471	1,702	769(31)
2021-22	3,240	2,203	1,037(32)

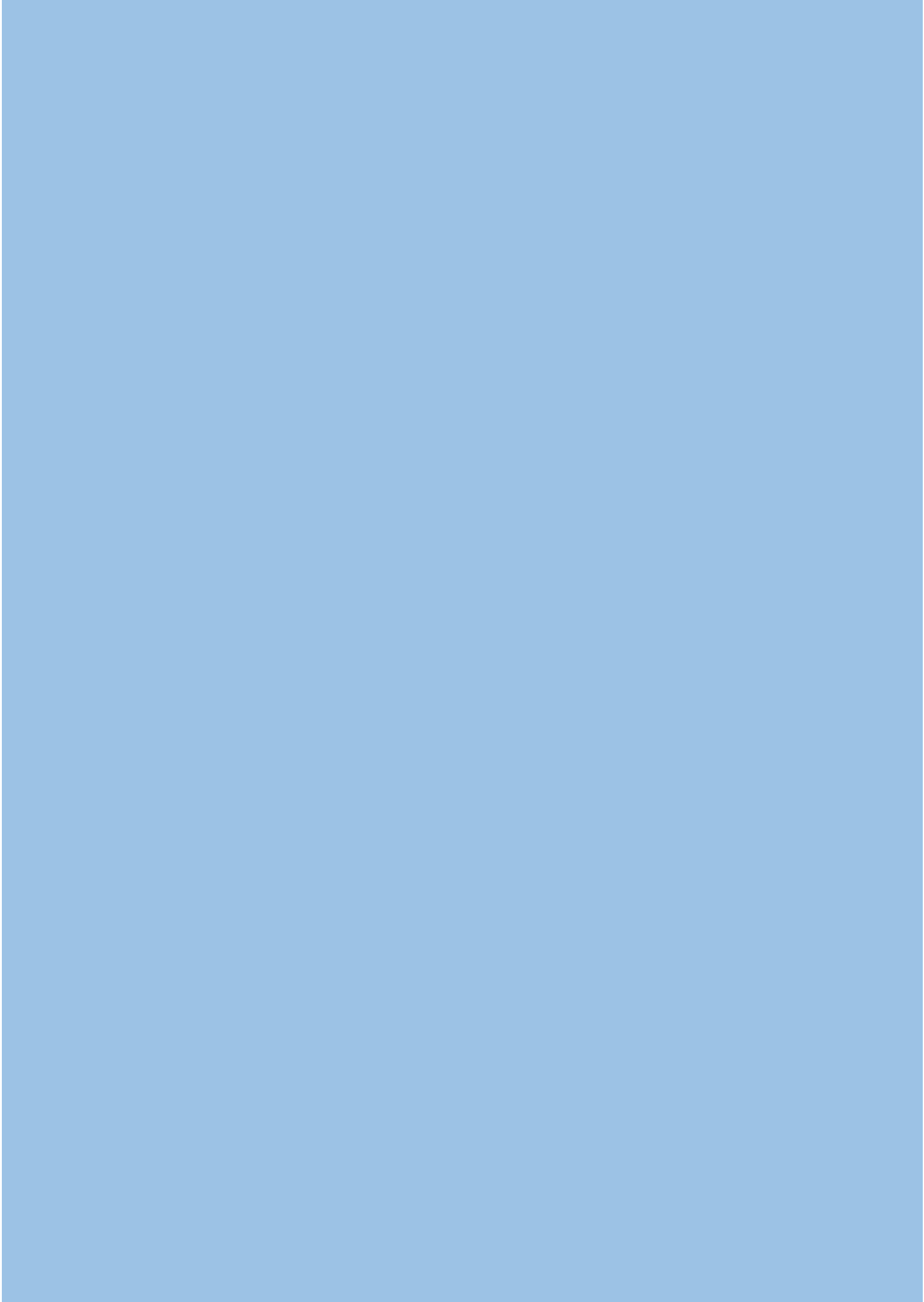
Source: Data obtained from the Mission Director, NHM, GoM

As seen from **Table 7.13**, except 2018-19 and 2019-20, there was shortfall of 31 per cent to 44 per cent in achievement during 2017-18 to 2021-22.

⁷⁶ Nanded Waghala Municipal Corporation; SDH Chopda; RH Erandol; RH Pachora and PHC at Sonkhed, Malakoli, Astha, Rohimpalgaon in Nanded district and PHC at Chandola, Mandal, Kasoda, Kinhil in Jalgaon district.

CHAPTER 8

Adequacy and Effectiveness of the Regulatory Mechanisms



Chapter 8: Adequacy and Effectiveness of the Regulatory Mechanisms

Clinical Establishment Act, 2010 was not adopted in Maharashtra as of March 2023 and the private nursing homes/healthcare facilities in the State were regulated as per the provisions of the Maharashtra Nursing Homes Registration Act. This Act with limited scope did not cover dispensaries, clinics, sanatoriums and diagnostic centres. Moreover, Local Supervising Authorities did not conduct periodic inspections of registered private Nursing Homes.

The Food and Drugs Administration had persistent shortage of manpower leading to shortfalls in its functioning like inspections, sample testing etc.

Instances of HCIs not having authorisation from Maharashtra Pollution Control Board for generation, collection, storage, transportation, etc., of bio-medical waste and disposal of liquid waste without treatment were noticed.

8.1 Regulatory Mechanism in the State

The role of regulatory bodies in the health and medical sector is to protect healthcare consumers from health risks, provide a safe working environment for healthcare professionals, and ensure that public health and welfare are served by health programs.

The healthcare system is regulated through various Union and State Acts under which various regulatory bodies have been constituted. In Maharashtra, Food and Drugs Administration, Maharashtra Medical Council, Maharashtra Para-Medical Council, Maharashtra State Pharmacy Council, and Maharashtra Nursing Council monitor individual and corporate healthcare practitioners and facilities. These regulatory bodies ensure higher safety standards and attempt to improve healthcare quality.

8.2 Regulation of Clinical Establishments

The Clinical Establishments (Registration and Regulation) Act, 2010 (CEA) of GoI provides for registration and regulation of all clinical establishments in the country with a view to prescribe minimum standards of facilities and services provided by them. The CEA was applicable to all kinds (both therapeutic and diagnostic) of clinical establishments from public and private sectors of all recognised systems of medicine including single-doctor clinics. The CEA, *inter alia*, provides for the constitution of State Council, compiling and updating the State registers of clinical establishment, publication on annual basis a report on the state of implementation of standards prescribed by the National Council.

Audit observed that the CEA was not adopted in Maharashtra as of March 2023. However, private nursing homes in Maharashtra are regulated as per the provisions of the Maharashtra Nursing Homes Registration Act (erstwhile Bombay Nursing Home Act, 1949).

Compared to CEA, the scope of the Maharashtra Nursing Homes Registration Act was very limited as it covered the registration and inspection of nursing homes only.

The non-adoption of CEA had resulted in non-coverage of dispensaries, clinics, sanatoriums and diagnostic centres and thereby increased the risk of clinical establishments running in the State without registration and also deficiencies in providing proper healthcare by these clinical establishments as per prescribed standards.

Recommendation 16: Government may explore the possibility of adopting the Clinical Establishment Act, 2010 so that all the clinical establishments in the State are registered and are adequately monitored to ensure that minimum standards of facilities and services are provided to public. Government may also ensure that updated database of medical facilities is maintained.

8.3 Drug Controller of the State

The Food and Drugs Administration (FDA) functioning under the administrative control of MEDD, was responsible for the implementation of the Drugs and Cosmetic Act, 1940 (D&C Act), the Drugs & Cosmetic Rules, 1945 (D&C Rules) and orders made thereupon to safeguard public health and to ensure the quality of drugs. Manufacturing of drugs was a controlled process under D&C Act and D&C Rules. Allopathic, Ayurvedic, Unani and Homeopathic drugs and cosmetics cannot be manufactured in the State without a valid Licence. The sale and distribution of drugs, transfer of drugs right from manufacturing of the drugs to wholesaler and retailer and selling to patients was controlled through valid licence and compulsory billing.

The FDA was headed by the Commissioner. The Joint Commissioner of each division has the Licensing Authority for the manufacturing units and the Assistant Commissioner of each district was the Licensing Authority for the selling units at the district level. The Joint Commissioner (Headquarters) also acted as the Drugs Control Authority of the State. The Drug Control Laboratory at Mumbai and Chhatrapati Smabhajinagar carried out the work of testing drug samples.

Section 18 (c) of the D&C Act provides that no person shall himself or by any other person on his behalf, manufacture for sale or for distribution, or sell, or stock or exhibit or offer for sale or distribute any drug, except under, and in accordance with the conditions of a licence issued for such purpose.

8.3.1 Human Resources in Food and Drugs Administration

For the smooth functioning of FDA, it is vital that persons are in position against sanctioned strength of various technical as well as non-technical posts. Huge vacancies in various cadres would adversely affect the functioning of the offices and hamper delivery of public service.

Scrutiny of records related to staff position for the period 2016-17 to 2021-22 in the office of the Commissioner, FDA, Mumbai, revealed that there were vacancies prominently in the technical posts throughout the period covered by Audit. Vacancy position in some of the key posts is shown in **Table 8.1**.

Table 8.1: Vacancy position in key posts in the State as of March 2022

Name of the post	Sanctioned strength	Persons in position	Vacant posts	Vacancy percentage
Joint Commissioner (Drugs)	8	1	7	87
Assistant Commissioner (Drugs)	67	43	24	36
Senior Scientific Officer	11	5	6	55
Scientific Officer	44	25	19	43
Drugs Inspectors	200	83	117	58
Analytical Chemist	40	27	13	32
Senior Technical Assistant	45	16	29	64
Lab Assistant	2	1	1	50

Source: Information furnished by Food and Drugs Administration, Mumbai

Persistent vacancies at the State level pose problems in functioning, leading to non-achievement of target of inspections and drawing and testing of samples as discussed in the succeeding paragraphs.

8.3.2 Inspection

As per Rule 51 of D&C Rules, the Drug Inspectors (DIs) were required to inspect all establishments licensed for the sale of drugs at least once a year. Rule 52 of D&C Rules states that the DI had to inspect all premises licensed for the manufacture of drugs or cosmetics at least once a year to check if the conditions of the licence and provisions of the Act and Rules are being observed. As per Rule 162 of D&C Rules, all the premises licensed for the manufacture of Ayurvedic (including Siddha) or Unani drugs have to be inspected by the DI not less than twice a year.

As per the information furnished by the FDA, Audit noticed that all firms licensed for manufacture of Allopathy drugs were inspected by FDA during 2016-17 to 2021-22. Audit further noticed that as against 4,954 inspections of firms licensed for the manufacture of Ayurvedic drugs only 1,182 firms were inspected during 2016-17 to 2021-22.

Further, scrutiny revealed that the FDA failed to achieve the target of inspections of the sales licensees in the State as shown in **Table 8.2**.

Table 8.2: Inspection of sales licensees (State)

Year	No. of Firms	Target of inspection	Actual inspections	Shortfall	Shortfall percentage
2016-17	63,930	63,930	25,958	37,972	59
2017-18	67,208	67,208	28,594	38,614	57
2018-19	71,730	71,730	24,760	46,970	65
2019-20	79,833	79,833	25,851	53,982	68
2020-21	84,662	84,662	25,340	59,322	70
2021-22	93,448	93,448	21,220	72,228	77

Source: Information furnished by the Food and Drugs Administration

As seen from **Tables 8.2**, there were huge shortfalls in inspection of sales licences in the State.

In reply, MEDD stated (January 2023) that due to shortage of staff and as per internal order, 100 *per cent* Ayurvedic manufacturing units were not inspected. The shortfall in inspection of licensed establishments during 2016-17 to 2021-22 was also accepted by MEDD. The fact remained that inspection of Ayurvedic manufacturing units and licensed establishments was not carried out as per the provisions of D&C Rules.

8.3.3 Drawing of drugs samples and sample testing

The drawing of samples, testing and follow-up action is extremely important to ensure that spurious drugs are not consumed by the public. Section 22 (1) (b) of D&C Act provided power to DIs to take samples of any drug or cosmetic (i) which is being manufactured or sold or is stocked or exhibited or offered for sale or is being distributed and (ii) from any person who is conveying, delivering, or preparing to deliver such drug or cosmetic to a purchaser or a consignee.

As per circulars issued by the Commissioner, Food and Drugs Administration, Maharashtra from time to time, Drug Inspectors were provided targets⁷⁷ for drawing drug samples and each Drug Inspector was required to draw the targeted samples per month from the licensed premises.

Analysis of information furnished to Audit revealed that there were shortfalls in drawing and testing of samples during 2016-17 to 2020-21. The target for 2021-22 was, however, achieved as shown in **Table 8.3**.

Table 8.3: Details of samples drawn and tested

Year	No. of DIs	Total samples required to be drawn	Total samples actually drawn	Shortfall (-)/ excess (+)	Samples tested	Shortfall in testing of samples (per cent)	Samples declared as of non-standard quality
2016-17	88	4,752	4,576	(-) 176	4,153	423 (9.2)	365
2017-18	88	5,280	5,240	(-) 40	4,762	478 (9.1)	407
2018-19	89	4,806	4,669	(-) 137	4,615	54 (1.1)	350
2019-20	92	4,508	4,189	(-) 319	3,823	366 (8.7)	205
2020-21	82	3,936	3,817	(-) 119	2,914	903 (23.6)	241
2021-22	70	2,520	2,574	(+) 54	2,533	41 (1.6)	320
Total		25,802	25,065	737	22,800	2,265 (9)	1,888

Source: Information furnished by the Food and Drugs Administration

As seen from **Table 8.3**, there was an average shortfall of nine *per cent* in testing of samples during 2017-18 to 2021-22. Further, out of 22,800 samples tested during 2016-17 to 2021-22, 1,888 samples (8.28 *per cent*) were found to be of non-standard quality.

In reply, MEDD stated (January 2023) that due to COVID-19, the sampling was hampered during 2019-20 to 2020-21.

8.4 Maharashtra Medical Council

The Maharashtra Medical Council (MMC) was established (November 1965) under the Maharashtra Medical Council Act 1965 (MMC, Act). The MMC, registers qualified medical practitioners working in private as well as public sector. MMC maintains biodata of the qualified doctors and keeps a watch on the conduct and upholding of ethics of the medical profession.

Section 31(6) of the National Medical Commission Act, 2019 stipulates that the State Register of Licensed Medical Practitioner should be maintained and regularly updated in the specified electronic format. A physical copy of the register was required to be furnished to the Ethics and Medical Registration

⁷⁷ Target of number of samples to be drawn by each Drug Inspector per year was 54 (2016-17), 60 (2017-18), 54 (2018-19), 48 (2019-20 and 2020-21) and 36 (2021-22).

Board, established under the National Medical Council within three months of commencement of the Act. As per Section 22 of the MMC, Act if Registered Medical Practitioner (RMP) was found guilty of any misconduct, the MMC, after due inquiry, may direct to remove the name of the RMP from the Register.

Section 23 (c) of the MMC, Act provided that every RMP registered with the MMC was required to renew the certificate of registration every five years thereafter, on payment of renewal fees.

Rule 28 of the MMC Rules, 1967 provided that the State Council shall meet in February and September of each year. Rule 43 of the MMC Rules provided for meetings of the Executive Committee (EC) once every two months.

Scrutiny of records and information provided by MMC for the year 2016-17 to 2021-22 revealed the following:

- Except for the year 2017, the State Council of MMC conducted its meetings as prescribed. However, the Executive Committee did not conduct the required number of meetings in any of the years from 2017 to 2022.
- 1,71,282 doctors were registered as RMPs till 2021-22, out of which, registration of 68,665 RMPs were due for renewal up to March 2022, but not renewed till May 2022. Audit noticed that out of these 68,665 RMPs, the registration of 4,071 RMPs was before 1st May 1960 (the date on which Maharashtra State was created), which indicated that there was no regular updation of the State Register of RMPs. In reply, MMC stated (December 2022) that in case a RMP does not renew registration in a specific time period, then MMC sends a reminder through email to RMP for renewal of registration. The fact remained that despite emails sent to RMPs, the renewal of registration by RMPs was poor.

Recommendation 17: The Maharashtra Medical Council may have appropriate mechanism for updating the register of Registered Medical Practitioners (RMPs) to ensure accurate information on the actual number of active RMPs in the State.

8.5 License for operation of radiation generating equipment from Atomic Energy Research Board

Atomic Energy (Radiation Protection) Rules, 2004, provides that hospitals should obtain licence for operation of X-ray equipment from the Atomic Energy Regulatory Board (AERB). Further, as per IPHS, protective equipment such as Lead Aprons and Thermo Luminescent Dosimeters (TLD) badges should be available with all the staff working in X-ray room and these should be periodically sent to Bhabha Atomic Research Centre (BARC) for assessment.

8.5.1 Non-registration of X-ray Machines, CT scan and MRI machines

As per the provisions of Atomic Energy (Radiation Protection) Rules, 2004, (Rules) a licence is required to be issued for sources and practices associated with the operation of telegamma and accelerators used in radiotherapy, CT scan units, etc. The licence is valid for five years from the date of issue of such licence. AERB, Mumbai is the competent authority for issuing the licence.

Audit noticed instances of HCIs not having obtained the licence from AERB, Mumbai as shown in **Table 8.4**.

Table 8.4: Hospitals operating without obtaining or renewing AERB license

Sr. No.	Name of the selected district	Test-checked HCI operating without obtaining or renewing AERB license
1	Amravati	District Hospital Regional Referral Service (Super Speciality Hospital)
2	Chhatrapati Sambhajanagar	Government Medical College and Hospital, District Hospital, Sub-District Hospital, Vaijapur, Sub District Hospital, Sillod, Rural Health Training Centre, Paithan, Rural Hospital, Pishor, Rural Hospital, Khultabad and Municipal Hospital, Chhatrapati Sambhajanagar.
3	Chandrapur	Government Medical College and Hospital
4	Jalgaon	Government Medical College and Hospital, Municipal Hospital, Sub-District Hospital, Muktainagar, Sub-District Hospital, Chopada, Rural Hospital, Erandol, Rural Hospital, Parola and Rural Hospital, Pachora
5	Mumbai City and Mumbai Suburban	G. T. Hospital
6	Nanded	Sub District Hospital, Hadgaon, Sub-District Hospital, Mukhed, Government Ayurved Medical College, Rural Hospital, Naigaon and Rural Hospital, Bhokar
7	Pune	T. B. Hospital, Regional Mental Hospital and Rural Hospital, Chakan
8	Kolhapur	Rural Hospital, Kagal and Rural Hospital, Panhala

Source: Information furnished by HCIs concerned

As seen from **Table 8.4**, out of 84 test-checked HCIs (RH and above), 29 HCIs were operating X-ray machines, CT scan and MRI machines without obtaining licence from AERB as per the Atomic Energy (Radiation Protection) Rules, 2004.

The MEDD stated (January 2023) that the renewal of the said licence of the HCIs from AERB, Mumbai was under process. Reply in respect of other HCIs was awaited.

8.5.2 Non-issue of Thermo Luminescence Dosimeter badges

Hospitals while providing radiological diagnostic services must adhere to the safety and regulatory norms to protect healthcare professionals and patients from the detrimental effects of radiation. The revised IPHS (for District Hospitals), 2012 stipulated that the technicians manning the X-ray units should be provided TLD badges to indicate levels of exposure to radiation.

Audit noticed (March 2022) that TLD badges were not provided to the technicians in 27 (56 *per cent*) out of 48 test-checked HCIs in the five selected districts (Amravati, Jalgaon, Kolhapur, Pune and Nanded) having Radiology Department, thereby endangering the lives of technicians. Information from remaining HCIs was not received.

8.6 Implementation of Maharashtra Nursing Homes Registration Act

As per Section 4 of the Maharashtra Nursing Homes Registration Act, every person intending to carry on a nursing home shall make, every year, an application in prescribed form for registration or the renewal of registration to

the local supervising authority⁷⁸. Further as per Rule 6 of the Maharashtra Nursing Homes Registration (Amendment) Rules, 2021, an application for renewal of registration shall be made in Form 'B' in advance in the month of January of the year in which registration or renewal expires.

The shortcomings noticed in the implementation of the Maharashtra Nursing Homes Registration Act are discussed in the succeeding paragraphs.

8.6.1 Inspection of Nursing home by Local Supervising Authority

As per the provisions of Rule 11A of the Maharashtra Nursing Homes Registration (Amendment) Rules, 2021, the local supervising authorities are required to inspect the nursing homes in their jurisdiction twice in a year.

There were 5,679 registered nursing homes in the nine selected districts. Out of this, in 1,383 nursing homes, no such inspections were conducted by any of the local supervising authorities. In the absence of periodical inspections, it could not be ascertained that the nursing homes continued to adhere to the staffing norms, equipment, operation theatres, ICU requirements, *etc.*, based on which registration was granted.

8.6.2 Renewal of registration of nursing homes

Scrutiny of records of local supervising authorities in selected districts revealed that in five⁷⁹ out of nine selected districts, 884 out of 2,947 private nursing homes had not renewed their registrations as of March 2022. The details are shown in **Table 8.5**.

Table 8.5: Details of renewal of nursing homes

Local Supervising Authority	No. of Nursing Homes	
	Total No. of Nursing Homes	Non-renewal of registration
Civil Surgeon, Chhatrapati Sambhajinagar	253	68
Jalgaon Municipal Corporation	339	16
District Health Officer, Kolhapur	442	372
Civil Surgeon, Kolhapur	257	39
Kolhapur Municipal Corporation	325	16
Civil Surgeon, Nanded	227	93
District Health Officer, Nanded	55	13
Nanded-Waghala Municipal Corporation	311	139
Pune Municipal Corporation	738	128
Total	2,947	884

Source: Information furnished by the Local Supervising Authority

⁷⁸ (i) In the areas falling within the jurisdiction of the Municipal Corporation- the Health Officer of the concerned Municipal Corporation, (ii) In the areas falling within the jurisdiction of the Municipal Council- the Civil Surgeon of the of the District in which such council is situated, (iii) In the areas falling within the jurisdiction of a Cantonment the Health Officer of the concerned Cantonment, (iv) In the areas not falling in (i), (ii) and (iii) the District Health Officer of the concerned Zilla Parishad.

⁷⁹ Amravati, Chandrapur, Mumbai City and Mumbai Suburban districts did not furnish information.

Non-renewal of registration increases the risk of these nursing homes functioning without adhering to the staffing norms, equipment, operation theatres, ICU requirement, etc.

Recommendation 18: Government may fill the vacancies in Food and Drugs Administration in a time bound manner to strengthen its regulatory function. Government may also direct and ensure that the Local Supervising Authorities conduct periodical inspections of registered private nursing homes as per the provision of Maharashtra Nursing Home Registration (Amendment) Rules, 2021.

8.7 Bio-Medical Waste Management

Bio-Medical Waste (BMW) is generated during procedures related to diagnosis, treatment and immunisation in the hospitals and its management is an integral part of infection control within the hospital premises. The GoI framed Bio-Medical Waste (Management and Handling) Rules, 1998 under Environment (Protection) Act, 1986, which were superseded by Bio-Medical Waste Management Rules, 2016 (BMW Rules). The BMW Rules *inter alia* stipulated the procedures for collection, handling, transportation, disposal and monitoring of the BMW with clear roles for waste generators and Common Bio-Medical Waste Treatment Facility (CBMWTF) operators.

As per Rule 10 of BMW Rules 2016, every occupier or operator handling bio-medical waste, irrespective of the quantity shall make an application to the State Pollution Control Board for grant of authorisation and the authority shall grant the provisional authorisation and the validity of such authorisation for bedded healthcare facility and operator of a common facility shall be synchronised with the validity of the consents.

Scrutiny of records and physical verification in 84 test-checked HCIs (excluding 35 PHCs) in the selected districts revealed the following:

- As per BWM Rules, 2016, an authorisation was to be obtained from the Maharashtra State Pollution Control Board (MPCB) for generation, collection, reception, storage, transportation, treatment, processing, disposal or any other form of handling of the bio-medical waste. However, six⁸⁰ HCIs had not obtained authorisation from MPCB and eight⁸¹ HCIs had not renewed their authorisation.
- Agencies in seven HCIs to whom the contract for disposal of bio-medical waste was awarded did not have the required combined consent and authorisation from MPCB as per the Rules.

⁸⁰ (i) Sub-District Hospital, Varora, (ii) Government Medical College and Hospital, Jalgaon, (iii) Sir J. J. Group of Hospitals, Mumbai (iv) Seth G. S Mediacal College and KEM and Hospital, Mumbai, (v) Babha Hospital, Kurla and (vi) YCMH, Pimpri-Chinchwad Municipal Corporation.

⁸¹ (i) Government Medical College and Hospital, Chhatrapati Sambhajanagar, (ii) Sub-District Hospital, Vaijapur, (iii) Sub-District Hospital, Sillod, (iv) Municipal Corporation Hospital, Chhatrapati Sambhajanagar, (v) Sub-District Hospital, Chimur, (vi) R A Podar Government Ayurved Medical College, Mumbai (vii) Bharatratna Babasaheb Ambedkar Municipal Corporation Hospital, Mumbai and (viii) T B Hospital, Pune.

- As per standards relating to disposal of liquid waste, the Occupier is required to treat the liquid waste in its effluent treatment plant (ETP) before discharge into the sewer and sludge from ETP shall be given to CBMWTF for incineration or to hazardous waste treatment, storage and disposal facility for disposal. Four HCIs had neither treated liquid waste nor had ETP.

Recommendation 19: Government may ensure that the provisions of the Bio-Medical Waste Management Rules are strictly followed for safe storage, collection and disposal of bio-medical waste generated in Health Care Institutions.

CHAPTER 9

Sustainable Development Goal-3

Chapter 9: Sustainable Development Goal-3

Though the State has prepared vision document for achievement of Sustainable Development Goals (SDGs), the State budget was not aligned to SDGs. Maharashtra has achieved targets set under SDG-3 related to reducing the maternal mortality rates, under five-year mortality rate, neo-natal mortality rate and successful treatment of tuberculosis patients. However, other targets like immunisation of children in age group 12-23 months, percentage of institutional deliveries out of total deliveries, percentage of births attended by skilled health personnel were yet to be achieved. Further, Maharashtra has performed better than All India SDG-3 scores in all the years.

9.1 Introduction

The United Nations General Assembly in 2015 adopted Sustainable Development Goals (SDGs) for the world to be achieved by 2030. One of the goals, SDG-3, pertains to “Good Health and Well-Being,” to ensure healthy lives and promote well-being for all.

Government of India (GoI) entrusted (September 2015) NITI Aayog⁸² with the responsibility of coordinating and overseeing the implementation of the 2030 Agenda of SDGs.

Planning Department (PD), GoM was the nodal department for the implementation of SDGs in Maharashtra. Besides, the SDG-Implementation and Coordination Centre (SDG-ICC) under the Directorate of Economics and Statistics of PD, GoM was established (December 2020) for monitoring the implementation of SDG-3.

9.2 Performance of the State pertaining to SDG-3

SDG India Index Report by NITI Aayog stipulates a mechanism⁸³ with the objective of measuring the progress of SDGs and develop competitiveness among States and Union Territories (UTs). Based on the results of the SDG India Index, States and UTs have been classified into four categories: Achiever, Front runner, Performer and Aspirant, where the 'Achiever' category represents the highest rank, and the 'Aspirant' category represents the lowest rank.

The performance of Maharashtra relating to SDG-3 in the SDG India Index and Dashboard Reports for the years 2018-19, 2019-20 and 2020-21 are shown in **Table 9.1**.

⁸² National Institution for Transforming India (NITI Aayog) is the policy think tank of the Government of India, providing both directional and policy inputs.

⁸³ As per NITI Aayog Releases SDG India Index: Baseline Report 2018 (21 December 2018) Aspirant: 0-49; Performer: 50-64; Front Runner: 65-99; Achiever: 100.

Table 9.1: SDG-3 score of India vis-a-vis SDG-3 score of Maharashtra

Sr. No.	Report	Composite SDG Score of India	Composite SDG Score of Maharashtra	SDG-3 Score of India	SDG-3 Score of Maharashtra
1	SDG India Index 1.0 ⁸⁴ (2018)	57 (Performer)	64 (Performer)	52 (Performer)	60 (Performer)
2	SDG India Index 2.0 ⁸⁵ (2019-20)	60 (Performer)	64 (Performer)	61 (Performer)	76 (Front Runner)
3	SDG India Index 3.0 ⁸⁶ (2020-21)	66 (Front Runner)	70 (Front Runner)	74 (Front Runner)	83 (Front Runner)

As seen from **Table 9.1**, the SDG-3 score of Maharashtra has shown a steady improvement over the period 2018-19 to 2020-2021. Further, Maharashtra has performed better than All India SDG-3 scores in all the years. The district-wise performance could not be ascertained as district-wise SDG Index Report was not prepared in the State.

9.3 Key steps for adoption of Sustainable Development Goals

The progress of implementation of SDGs in six steps *i.e.*, establishment of unit/cell center on SDGs, mapping of department/schemes, formulation of vision/roadmap/strategy on SDGs, alignment of budget with SDGs, constitution of monitoring framework and consultations/ orientations/training revealed the following:

- The Government of Maharashtra has prepared the “Maharashtra Vision 2030”, a vision document for achieving the SDGs.
- The mapping of department/schemes, the constitution of monitoring framework and consultations/ orientations/training has been done in the State
- The State budget was not aligned to SDGs.

Recommendation 20: Government may consider alignment of State health budget to SDG-3.

9.4 Achievement of Targets under SDG-3

The Ministry of Statistics and Programme Implementation (MoSPI), Government of India had developed National Indicator Framework (NIF) for each SDGs to assist the Government in monitoring and tracking the progress of SDGs at national level. There are 41 indicators in NIF developed for SDG-3,

⁸⁴ SDG India Index 1.0: The first version of the Index *i.e.*, SDG India Index Baseline Report, 2018 (SDG India Index 1.0) was released in December 2018. The Index tracks the progress of all the States and UTs on a set of 62 indicators covering 13 SDGs (leaving out Goals 12, 13, 14 and 17, mainly because of paucity of data). As per the Report, Maharashtra has been ranked as 'Performer' with 64 composite score in SDG India Index 1.0.

⁸⁵ SDG India Index 2.0: It is the second version of the Index which builds upon its first version. It was launched in December 2019. The Index has been constructed using 100 indicators that cover 54 targets across 16 goals barring Goal 17 due to the fact that the data for SDG 17 are not available. As per the Report, Maharashtra has been ranked as “Performer” on Composite SDG India Index 2.0 with the Index Score of 64.

⁸⁶ SDG India Index 3.0: SDG India Index 3.0 launched in June, 2021 in which Maharashtra improved its overall SDG score from 64 in 2019-20 to 70 in 2020-21, improving its position in the Front runner category.

which are to be achieved by 2030. In Maharashtra, for SDG-3, PHD, GoM is the nodal department while Home (Transport) Department, Finance Department, Environment Department and Medical Education and Drugs Department are the other departments concerned for the achievement of the targets under SDG-3. The performance at the State level and national level against 41 indicators of SDG-3 as of December 2023 is detailed in **Appendix 9.1** and performance at the State level is summarised in **Table 9.2**.

Table 9.2: Achievements vis-à-vis the SDG-3 indicators

Sr. No.	Particulars	Achievements
1	16 indicators	Targets not fixed
2	25 indicators	Targets fixed
2a	4 indicators	Targets achieved
2b	11 indicators	Targets not achieved but above the national average
2c	1 indicator	Target not achieved and below the national average
2d	9 indicators	Achievements not available

Source: Information furnished by Commissioner, Health Services, Mumbai

As seen from **Table 9.2**, out of 25 indicators for which targets were fixed by GoI, targets were achieved in respect of four indicators (16 *per cent*), in 12 indicators (48 *per cent*) targets were not achieved while in the remaining nine indicators (36 *per cent*) the data of achievement was not available.



(C.M. SANE)

Mumbai,
The 08 August 2024

Principal Accountant General (Audit)-I,
Maharashtra, Mumbai

Countersigned



(GIRISH CHANDRA MURMU)

New Delhi,
The 21 August 2024

Comptroller and Auditor General of India

Appendices

Appendix 1.1
(Reference: Paragraph 1.5)

List of Hospitals attached to Government Medical Colleges

A. List of Existing Medical Colleges

Sr. No.	Name of Medical College	List of Hospitals attached to Government Medical College
1	Government Grant Medical College, Mumbai	Sir J.J. Group of Hospitals, Mumbai St. Georges Hospital, Mumbai G.T. Hospital, Mumbai Cama & Albless Hospital, Mumbai
2	B.J. Government Medical College, Pune	Sassoon General Hospital, Pune
3	Dr. Vaishampayan Memorial Government Medical College, Solapur	Chhatrapati Shivaji Maharaj General Hospital, Solapur
4	Government Medical College, Miraj, Sangli	Government Medical College Hospital, Miraj, Sangli Padmabhushan Vasantdada Patil General Hospital, Sangli
5	C. S. M. Government Medical College, Kolhapur	Chhatrapati Pramilaraje Hospital, Kolhapur
6	Shri Bhausaheb Hire Government Medical College, Dhule	General Hospital, Dhule
7	Government Medical College, Nagpur	Government Medical College Hospital, Nagpur Super Speciality Hospital, Nagpur
8	Indira Gandhi Government Medical College, Nagpur	Meyo General Hospital, Nagpur Dr. Babasaheb Ambedkar Hospital and Research Centre, Nagpur
9	Shri V. N. Government Medical College, Yavatmal	General Hospital, Yavatmal Women Hospital, Yavatmal
10	Government Medical College, Akola	Government Medical College Hospital, Akola
11	Government Medical College, Chhatrapati Sambhajnagar	Government Medical College Hospital, Chhatrapati Sambhajnagar Government Cancer Hospital, Chhatrapati Sambhajnagar
12	Dr. S.C. Government Medical College, Nanded	Guru Govind Singh General Hospital, Nanded
13	Swami Ramanand Tirth Rural Medical College, Ambejogai, Beed	Swami Ramanand Tirth Rural Medical College Hospital, Ambejogai, Beed
14	Government Medical College, Latur	Government Medical College Hospital, Latur
15	Government Medical College, Gondia	Government Medical College Hospital, Gondia
16	Government Medical College, Chandrapur	Government Medical College Hospital, Chandrapur
17	Government Medical College, Jalgaon	Government Medical College Hospital, Jalgaon
18	Government Medical College, Baramati, Pune	Government Medical College and General Hospital, Baramati, Pune
19	Government Medical College, Nandurbar	Government Medical College Hospital, Nandurbar

Source: Information obtained from Commissioner, Medical Education and Research, Mumbai

B. List of New Medical Colleges

Sr. No.	Name of Government Medical College and Hospital (GMCH)	Functional Since (Academic Year)
1	Government Medical College and Hospital, Satara	2021-22
2	Government Medical College and Hospital, Alibaug	Yet to start function
3	Government Medical College and Hospital, Sindhudurg	Yet to start function
4	Government Medical College and Hospital, Dharashiv	2021-22

Note: During 2016-17 to 2021-22 four new Medical Colleges were planned.

C. List of AYUSH Colleges

Sr. No.	Name of AYUSH College	List of Hospital Attached to AYUSH College
1	R A Podar Ayurved College, Mumbai	R A Podar Hospital, Mumbai
2	Government. Ayurved College, Nagpur	Government. Ayurved Hospital, Nagpur
3	Government. Ayurved College, Nanded	Government. Ayurved Hospital, Nanded
4	Government. Ayurved College, Dharashiv	Government. Ayurved Hospital, Dharashiv
5	Government. Ayurved College, Jalgaon	Government. Ayurved Hospital, Jalgaon
6	Government. Ayurved College, Baramati, Pune	Government. Ayurved Hospital, Baramati, Pune
7	Government. Homeopathy College, Jalgaon	Government. Homeopathy College, Jalgaon

Further, one Ayurvedic Hospital (20 bedded) is attached to the Government Medical College, Pune and one Government Homeopathy Hospital, Mumbai is independent of any College.

Source: Information obtained from Director, AYUSH, Mumbai

Appendix 1.2
(Reference: Paragraph 1.14)
List of Health Care Institutions test-checked in audit

Sr. No.	District	Type of HCIs	Name of HCIs
1	Amravati	District Hospital (DH)/ General Hospital (GH)	DH, Amravati
2	Amravati	Sub District Hospital (SDH) (100- Bedded)	SDH, Achalpur
3	Amravati	SDH (50- Bedded)	SDH, Dharani
4	Amravati	Rural Hospital (RH)	RH, Chandur Bazar
5	Amravati	RH	RH, Dhamangaon Railway
6	Amravati	Urban Primary Health Centre (UPHC)	Municipal Corporation Dispensary, Modi Hospital Badnera
7	Amravati	Primary Health Centre (PHC)	PHC, Anjangaon Bari, Taluka- Amravati
8	Amravati	PHC	PHC, Pathrot, Taluka-Achalpur
9	Amravati	PHC	PHC, Vichori, Taluka-Morshi
10	Amravati	PHC	PHC, Kokarda, Taluka-Anjangaon Surji
11	Amravati	PHC	PHC, Kalamkhar, Taluka Dharni
12	Amravati	Women Hospital (WH)	WH, Amravati
13	Amravati	Super Speciality Hospital (SSH)	Regional Referral Service Hospital, Amravati
14	Amravati	Tuberculosis Hospital (TBH),	G.G Rathi TBH, Amravati
15	Chandrapur	GMCH	Government Medical College and Hospital
16	Chandrapur	SDH (100- Bedded)	SDH, Chimur
17	Chandrapur	SDH (100- Bedded)	SDH, Warora
18	Chandrapur	SDH (50- Bedded)	SDH, Mul
19	Chandrapur	RH	RH, Ballarpur
20	Chandrapur	RH	RH, Bhadrawati
21	Chandrapur	PHC	PHC, Chiroli, Taluka Mul
22	Chandrapur	PHC	PHC, Antargaon, Taluka Sawali
23	Chandrapur	PHC	PHC, Saori, Taluka Warora
24	Chandrapur	PHC	PHC, Tadali, Taluka Chandrapur
25	Chandrapur	PHC	PHC, Kothari, Taluka Ballarpur
26	Chhatrapati Sambhajinagar	GMCH	Government Medical College Hospital and Government Cancer Hospital, Chhatrapati Sambhajinagar
27	Chhatrapati Sambhajinagar	DH/GH	DH, Chhatrapati Sambhajinagar
28	Chhatrapati Sambhajinagar	SDH (100- Bedded)	SDH, Vaijapur
29	Chhatrapati Sambhajinagar	SDH (50- Bedded)	SDH, Sillod
30	Chhatrapati Sambhajinagar	PHC	PHC, Lasurstation, Taluka- Gangapur
31	Chhatrapati Sambhajinagar	PHC	PHC, Jikthan, Taluka Gangapur
32	Chhatrapati Sambhajinagar	PHC	PHC, Daulatabad, Taluka Chhatrapati Sambhajinagar
33	Chhatrapati Sambhajinagar	PHC	PHC, Borsar, Taluka Vaijapur
34	Chhatrapati Sambhajinagar	PHC	PHC, Amthana, Taluka Sillod
35	Chhatrapati Sambhajinagar	RH	RH, Khultabad
36	Chhatrapati Sambhajinagar	RH	RH, Pishor
37	Chhatrapati Sambhajinagar	UPHC	MCH, CIDCO N 8
38	Chhatrapati Sambhajinagar	Dental College and Hospital (DC&H)	Government DC&H, Chhatrapati Sambhajinagar

Sr. No.	District	Type of HCIs	Name of HCIs
39	Jalgaon	GMCH	Government Medical College Hospital
40	Jalgaon	SDH (100- bedded)	SDH, Chopda
41	Jalgaon	SDH (50- bedded)	SDH, Mukatainagar
42	Jalgaon	RH	RH, Erandol
43	Jalgaon	RH	RH, Pachora
44	Jalgaon	RH	Kutir, Hospital Parola
45	Jalgaon	UPHC	Dadasaheb Bhikamchandjee Jain Hospital Jalgaon Municipal Corporation
46	Jalgaon	PHC	PHC, Kinhi, Taluka Bhusawal
47	Jalgaon	PHC	PHC, Kasoda, Taluka Erandol
48	Jalgaon	PHC	PHC, Mandal, Taluka Amalner
49	Jalgaon	PHC	PHC, Patonda, Taluka Amalner
50	Jalgaon	PHC	PHC, Mangrul, Taluka Parola
51	Kolhapur	GMCH	Chhatrapati Pramilaraje Hospital
52	Kolhapur	SDH (100- bedded)	SDH Gadhingalaj
53	Kolhapur	SDH (50- bedded)	Services Hospital Kolhapur
54	Kolhapur	TBH	TBH, Kolhapur
55	Kolhapur	DH/GH	Indira Gandhi GH, Ichalkaranji
56	Kolhapur	RH	RH, Panhala
57	Kolhapur	RH	RH, Khupire, Taluka Karveer
58	Kolhapur	RH	RH, Kagal
59	Kolhapur	PHC	PHC, Tudiye, Taluka-Chandgad
60	Kolhapur	PHC	PHC, Siddhanerli, Taluka- Kagal
61	Kolhapur	PHC	PHC, Danoli, Taluka- Shirol
62	Kolhapur	PHC	PHC, Pattan Kodoli, Taluka, Hatkanangle
63	Kolhapur	PHC	PHC, Unchgaon, Taluka Karvir
64	Kolhapur	MCH	Savitribai Phule Hospital
65	Mumbai	GMCH	Sir J.J. Group of Hospitals, Mumbai
66	Mumbai	GMCH	St. George's Hospital, Mumbai
67	Mumbai	GMCH	G.T. Hospital, Mumbai
68	Mumbai	GMCH	Cama & Albless Hospital, Mumbai
69	Mumbai	GMCH	Public Health Centre, Bandra, Mumbai
70	Mumbai	GH	GH Malvani
71	Mumbai	Ayurved Hospital (AH)	R.A Podar Government Ayurved Medical College and M.A Podar Hospital Worli
72	Mumbai Sub Urban	AH	Government Homeopathic Hospital, Vile Parle
73	Mumbai	DC&H	Government Dental College and Hospital, Mumbai
74	Mumbai	MCH	Seth Gordhandas Sundardas Medical College & King Edward Memorial Hospital, Parel (KEM)
75	Mumbai	MCH	Group of Tuberculosis Hospitals, (TBH) Sewree
76	Sub Urban Mumbai	MCH	Khursheedji Behramji Bhabha, Bandra (West)
77	Sub Urban Mumbai	MCH	Vishnuprasad Nandray Desai, Santacruz (East)
78	Sub Urban Mumbai	MCH	Bharatratna Dr. Babasaheb Ambedkar Kandivali (West)
79	Sub Urban Mumbai	MCH	Khan Bahadur Bhabha Municipal, Kurla (West)
80	Sub Urban Mumbai	MCH	Seth Wadilal Chhatrabhuj Gandhi & Monji Amidas Vora, Rajawadi, Ghatkopar (East)
81	Nanded	GMCH	Guru Gobind Singh General Hospital, Nanded
82	Nanded	DH/GH	DH Nanded
83	Nanded	SDH (100- bedded)	SDH, Mukhed
84	Nanded	SDH (50- bedded)	SDH, Hadgaon

Sr. No.	District	Type of HCIs	Name of HCIs
85	Nanded	Rural Hospital	RH, Bhokar
86	Nanded	Rural Hospital	RH, Naigaon
87	Nanded	WH	WH, Nanded
88	Nanded	AH	Government Ayurved College and Hospital, Nanded
89	Nanded	PHC	PHC, Malkoli, Taluka Loha
90	Nanded	PHC	PHC, Astha, Taluka Mahur
91	Nanded	PHC	PHC, Somkhed, Taluka Loha
92	Nanded	PHC	PHC, Rohimpalgaon, Taluka Mudkhed
93	Nanded	PHC	PHC, Chandola, Taluka Mukhed
94	Nanded	UPHC	Sangavi Nanded Waghela, Municipal Corporation (NWMC)
95	Nanded	UPHC	Shivaji Nagar, NWMC
96	Nanded	Urban Community Health Centre (UCHC)	Hyderabad, NWMC
97	Nanded	UPHC	CIDCO, NWMC
98	Pune	GMCH	Sasoon General Hospital, Pune
99	Pune	GMCH	Government Medical College and General Hospital, Baramati, Pune
100	Pune	DH/GH	DH, Pune
101	Pune	Leprosy Hospital (LH)	Dr Banderwala LH, Pune
102	Pune	Mental Hospital (MH)	Regional M. H., Yerawada, Pune
103	Pune	TBH	Tuberculosis Hospital, Aundh, Pune
104	Pune	WH	Women Hospital, Baramati
105	Pune	SDH (100- Bedded)	SDH, Manchar
106	Pune	SDH (100- Bedded)	SDH, Baramati
107	Pune	SDH (50- Bedded)	SDH, Daund
108	Pune	RH	RH, Chakan, Taluka Khed
109	Pune	RH	RH Shikrapur, Taluka Shirur
110	Pune	RH	RH, Shirur, Taluka Shirur
111	Pune	PHC	PHC, Hol, Taluka Baramati
112	Pune	PHC	PHC, Walhe, Taluka Purandar
113	Pune	PHC	PHC, Khedshivapur, Taluka Haveli
114	Pune	PHC	PHC, Aptale, Taluka Junnar
115	Pune	PHC	PHC, Rajgurunagar, Taluka Khed
116	Pune	AH	RMO, 20 Bedded Ayurved ward at Sassoon GH
117	Pune	MCH	Kamla Nehru Hospital, Pune Municipal Corporation
118	Pune	MCH	Y. C. M. Hospital, Pimpri Chinchwad. Municipal Corporation (PCMC)
119	Pune	MCH	Krantijyoti Savitribai Phule (Talera) Hospital, PCMC

DH/GH:- District Hospital/General Hospital; GMCH:- Government Medical College and Hospital; DC&H:- Dental College and Hospital; AH:- AYUSH Hospital; SSH:- Super Speciality Hospital; LH:- Leprosy Hospital; WH:- Women Hospital; SDH:- Sub-District Hospital; TBH:- Tuberculosis Hospital; MH:- Mental Hospital; RH:- Rural Hospital; PHC:- Primary Health Centre; MCH:- Municipal Corporation Hospital; UPHC:- Urban Primary Health Centre; UCHC:- Urban Community Health Centre.

Note: Total 119 HCIs were test-checked in selected districts which included 35 PHCs. Besides, a survey of 1,973 patients (Inpatient: 690; Outpatient: 1,283) in 84 test-checked HCIs (excluding 35 PHCs) was done to assess the effectiveness of health care services.

Appendix 1.3
(Reference: Paragraph 1.14)
Methodology adopted for selection of HCIs in the selected Districts

All District/General Hospitals in the selected Districts.
All Medical College & Hospitals, Dental College & Hospitals in the selected Districts.
All Super Speciality, Women, AYUSH, Leprosy, Tuberculosis and Mental Hospitals in the selected Districts.
All 100 bedded Sub-District hospitals at Sub-Divisional Level in the selected Districts
25 <i>per cent</i> of 50 bedded Sub-District hospitals at Sub-Divisional Level on random basis considering bed occupancy in the selected Districts.
15 <i>per cent</i> of RHs at Taluka Level in the selected Districts on random basis considering bed occupancy
Five PHCs on random basis considering population covered by PHC in the selected Districts
25 <i>per cent</i> HCIs under Municipal Corporations in the selected Districts

Appendix 2.1 (A)
(Reference: Paragraph 2.3.1)

Availability of Doctors in Primary and Secondary healthcare under PHD *vis-à-vis* requirement as per IPHS and sanctioned strength as of May 2023

Name of the District	HCI	Requirement as per IPHS	Sanctioned Strength	Shortfall (-)/ excess(+) as per IPHS	Per centage of shortfall (-)/ excess(+) <i>vis-à-vis</i> requirement as per IPHS	Persons in position	Shortfall (-)/ excess(+) as per Sanctioned strength	Per centage of shortfall (-)/ excess(+) <i>vis-à-vis</i> sanctioned strength
Ahmednagar	DH	34	36	2	6	27	-9	-25
	PHCs	96	206	110	115	174	-32	-16
	RH	242	84	-158	-65	47	-37	-44
	SCs	0	0	0		0	0	0
	SDH	60	25	-35	-58	12	-13	-52
	Total	432	351	-81	-19	260	-91	-26
Akola	PHCs	30	64	34	113	58	-6	-9
	RH	55	18	-37	-67	16	-2	-11
	SCs	0	0	0		0	0	0
	SDH	24	9	-15	-63	6	-3	-33
	Total	109	91	-18	-17	80	-11	-12
Amravati	DH	50	43	-7	-14	43	0	0
	PHCs	56	102	46	82	99	-3	-3
	RH	99	38	-61	-62	21	-17	-45
	SCs	0	0	0		0	0	0
	SDH	104	54	-50	-48	40	-14	-26
	Total	309	237	-72	-23	203	-34	-14
Bhandara	DH	58	64	6	10	54	-10	-16
	PHCs	33	69	36	109	64	-5	-7
	RH	77	15	-62	-81	10	-5	-33
	SCs	0	0	0		0	0	0
	SDH	44	20	-24	-55	11	-9	-45
	Total	212	168	-44	-21	139	-29	-17
Beed	DH	50	35	-15	-30	35	0	0
	PHCs	50	143	93	186	138	-5	-3
	RH	88	12	-76	-86	14	2	17
	SCs	0	0	0		0	0	0
	SDH	68	22	-46	-68	11	-11	-50
	Total	256	212	-44	-17	198	-14	-7
Buldhana	DH	50	29	-21	-42	15	-14	-48
	PHCs	52	104	52	100	103	-1	-1
	RH	143	40	-103	-72	20	-20	-50
	SCs	0	0	0		0	0	0
	SDH	20	21	1	5	15	-6	-29
	Total	265	194	-71	-27	153	-41	-21
Chandrapur	PHCs	58	133	75	129	126	-7	-5
	RH	99	27	-72	-73	26	-1	-4
	SCs	0	0	0		0	0	0
	SDH	68	28	-40	-59	29	1	4
	Total	225	188	-37	-16	181	-7	-4
Chhatrapati Sambhajanagar	DH	34	26	-8	-24	25	-1	-4
	PHCs	50	123	73	146	114	-9	-7
	RH	110	37	-73	-66	35	-2	-5
	SCs	0	0	0		0	0	0
	SDH	64	43	-21	-33	29	-14	-33
	Total	258	229	-29	-11	203	-26	-11

Name of the District	HCI	Requirement as per IPHS	Sanctioned Strength	Shortfall (-)/ excess(+) as per IPHS	Per centage of shortfall (-)/ excess(+) vis-à-vis requirement as per IPHS	Persons in position	Shortfall (-)/ excess(+) as per Sanctioned strength	Per centage of shortfall (-)/ excess(+) vis-à-vis sanctioned strength
Dharashiv	PHCs	42	91	49	117	89	-2	-2
	RH	66	22	-44	-67	15	-7	-32
	SCs	0	0	0		0	0	0
	SDH	108	36	-72	-67	33	-3	-8
	Total	216	149	-67	-31	137	-12	-8
Dhule	DH	29	44	15	52	25	-19	-43
	PHCs	41	114	73	178	80	-34	-30
	RH	55	28	-27	-49	22	-6	-21
	SCs	0	0	0		0	0	0
	SDH	44	26	-18	-41	22	-4	-15
	Total	169	212	43	25	149	-63	-30
Gadchiroli	DH	34	51	17	50	38	-13	-25
	PHCs	45	110	65	144	53	-57	-52
	RH	99	21	-78	-79	14	-7	-33
	SCs	0	0	0		0	0	0
	SDH	60	15	-45	-75	15	0	0
	Total	238	197	-41	-17	120	-77	-39
Gondia	PHCs	40	85	45	113	85	0	0
	RH	110	36	-74	-67	19	-17	-47
	SCs	0	0	0		0	0	0
	SDH	20	7	-13	-65	7	0	0
	Total	170	128	-42	-25	111	-17	-13
Hingoli	DH	29	45	16	55	31	-14	-31
	PHCs	24	51	27	113	51	0	0
	RH	33	8	-25	-76	7	-1	-13
	SCs	0	0	0		0	0	0
	SDH	44	18	-26	-59	12	-6	-33
	Total	130	122	-8	-6	101	-21	-17
Jalgaon	PHCs	77	156	79	103	67	-89	-57
	RH	209	82	-127	-61	42	-40	-49
	SCs	0	0	0		0	0	0
	SDH	64	27	-37	-58	15	-12	-44
	Total	350	265	-85	-24	124	-141	-53
Jalna	DH	29	33	4	14	32	-1	-3
	PHCs	40	110	70	175	96	-14	-13
	RH	77	22	-55	-71	16	-6	-27
	SCs	0	0	0		0	0	0
	SDH	20	5	-15	-75	5	0	0
	Total	166	170	4	2	149	-21	-12
Kolhapur	PHCs	73	180	107	147	94	-86	-48
	RH	165	56	-109	-66	42	-14	-25
	SCs	0	0	0		0	0	0
	SDH	84	45	-39	-46	38	-7	-16
	Total	322	281	-41	-13	174	-107	-38
Latur	PHCs	46	104	58	126	81	-23	-22
	RH	121	93	-28	-23	77	-16	-17
	SCs	0	0	0		0	0	0
	SDH	20	4	-16	-80	4	0	0
	Total	187	201	14	7	162	-39	-19
Nagpur	PHCs	49	174	125	255	111	-63	-36

Name of the District	HCI	Requirement as per IPHS	Sanctioned Strength	Shortfall (-)/ excess(+) as per IPHS	Per centage of shortfall (-)/ excess(+) vis-à-vis requirement as per IPHS	Persons in position	Shortfall (-)/ excess(+) as per Sanctioned strength	Per centage of shortfall (-)/ excess(+) vis-à-vis sanctioned strength
	RH	110	50	-60	-55	40	-10	-20
	SCs	0	0	0		0	0	0
	SDH	40	21	-19	-48	17	-4	-19
	Total	199	245	46	23	168	-77	-31
Nanded	DH	29	7	-22	-76	6	-1	-14
	PHCs	65	207	142	218	158	-49	-24
	RH	143	40	-103	-72	21	-19	-48
	SCs	0	0	0		0	0	0
	SDH	84	49	-35	-42	45	-4	-8
	Total	321	303	-18	-6	230	-73	-24
Nandurbar	PHCs	58	123	65	112	102	-21	-17
	RH	121	20	-101	-83	17	-3	-15
	SCs	0	0	0		0	0	0
	SDH	40	7	-33	-83	1	-6	-86
	Total	219	150	-69	-32	120	-30	-20
Nashik	DH	68	60	-8	-12	55	-5	-8
	PHCs	104	258	154	148	255	-3	-1
	RH	242	80	-162	-67	57	-23	-29
	SCs	0	0	0		0	0	0
	SDH	128	57	-71	-55	49	-8	-14
	Total	542	455	-87	-16	416	-39	-9
Palghar	PHCs	46	142	96	209	131	-11	-8
	RH	99	14	-85	-86	14	0	0
	SCs	0	0	0		0	0	0
	SDH	68	27	-41	-60	16	-11	-41
	Total	213	183	-30	-14	161	-22	-12
Parbhani	DH	58	48	-10	-17	48	0	0
	PHCs	31	74	43	139	48	-26	-35
	RH	77	27	-50	-65	25	-2	-7
	SCs	0	0	0		0	0	0
	SDH	40	17	-23	-58	11	-6	-35
	Total	206	166	-40	-19	132	-34	-20
Pune	DH	34	26	-8	-24	21	-5	-19
	PHCs	96	233	137	143	203	-30	-13
	RH	231	71	-160	-69	41	-30	-42
	SCs	0	0	0		0	0	0
	SDH	88	16	-72	-82	16	0	0
	Total	449	346	-103	-23	281	-65	-19
Raigad	DH	34	38	4	12	29	-9	-24
	PHCs	52	117	65	125	105	-12	-10
	RH	88	30	-58	-66	20	-10	-33
	SCs	0	0	0		0	0	0
	SDH	128	45	-83	-65	32	-13	-29
	Total	302	230	-72	-24	186	-44	-19
Ratnagiri	DH	29	31	2	7	12	-19	-61
	PHCs	67	131	64	96	131	0	0
	RH	88	27	-61	-69	15	-12	-44
	SCs	0	0	0		0	0	0
	SDH	64	20	-44	-69	7	-13	-65
	Total	248	209	-39	-16	165	-44	-21

Name of the District	HCI	Requirement as per IPHS	Sanctioned Strength	Shortfall (-)/ excess(+) as per IPHS	Per centage of shortfall (-)/ excess(+) vis-à-vis requirement as per IPHS	Persons in position	Shortfall (-)/ excess(+) as per Sanctioned strength	Per centage of shortfall (-)/ excess(+) vis-à-vis sanctioned strength
Sangli	PHCs	59	131	72	122	128	-3	-2
	RH	143	27	-116	-81	27	0	0
	SCs	0	0	0		0	0	0
	SDH	60	12	-48	-80	12	0	0
	Total	262	170	-92	-35	167	-3	-2
Satara	DH	34	27	-7	-21	17	-10	-37
	SDH	44	19	-25	-57	17	-2	-11
	PHCs	71	174	103	145	98	-76	-44
	RH	165	57	-108	-65	32	-25	-44
	SCs	0	0	0		0	0	0
	Total	314	277	-37	-12	164	-113	-41
Sindhudurg	DH	50	31	-19	-38	24	-7	-23
	PHCs	38	76	38	100	57	-19	-25
	RH	66	29	-37	-56	17	-12	-41
	SCs	0	0	0		0	0	0
	SDH	68	51	-17	-25	48	-3	-6
	Total	222	187	-35	-16	146	-41	-22
Solapur	PHCs	77	172	95	123	164	-8	-5
	RH	154	60	-94	-61	36	-24	-40
	SCs	0	0	0		0	0	0
	SDH	64	28	-36	-56	27	-1	-4
	Total	295	260	-35	-12	227	-33	-13
Thane	DH	50	54	4	8	45	-9	-17
	PHCs	33	79	46	139	75	-4	-5
	RH	66	19	-47	-71	17	-2	-11
	SCs	0	0	0		0	0	0
	SDH	68	30	-38	-56	28	-2	-7
	Total	217	182	-35	-16	165	-17	-9
Wardha	DH	34	12	-22	-65	10	-2	-17
	PHCs	27	74	47	174	72	-2	-3
	RH	88	25	-63	-72	16	-9	-36
	SCs	0	0	0		0	0	0
	SDH	44	15	-29	-66	9	-6	-40
	Total	193	126	-67	-35	107	-19	-15
Washim	DH	29	25	-4	-14	18	-7	-28
	PHCs	25	50	25	100	50	0	0
	RH	77	18	-59	-77	9	-9	-50
	SCs	0	0	0		0	0	0
	SDH	24	9	-15	-63	0	-9	-100
	Total	155	102	-53	-34	77	-25	-25
Yavatmal	PHCs	63	301	238	378	156	-145	-48
	RH	154	52	-102	-66	25	-27	-52
	SCs	0	0	0		0	0	0
	SDH	80	42	-38	-48	28	-14	-33
	Total	297	395	98	33	209	-186	-47
	Grand Total	8668	7381	-1287	-15	5765	-1616	-22

Source: Information furnished by respective Health Care Institutions

Note: As per IPHS, there is no requirement of doctors in Sub-center

Appendix 2.1 (B)
(Reference: Paragraph 2.3.1)

Availability of Nurses in Primary and Secondary healthcare under PHD *vis-à-vis* requirement as per IPHS and sanctioned strength as of May 2023

Name of the District	HCIs	Requirement as per IPHS	Sanctioned Strength	Shortfall (-)/ excess(+) as per IPHS	Per centage of shortfall (-)/ excess(+) <i>vis-à-vis</i> requirement as per IPHS	Persons in position	Shortfall (-)/ excess(+) as per Sanctioned strength	Per centage of shortfall (-)/ excess(+) <i>vis-à-vis</i> sanctioned strength
Ahmednagar	DH	90	129	39	43	127	-2	-2
	PHCs	288	272	-16	-6	180	-92	-34
	RH	242	229	-13	-5	213	-16	-7
	SCs	555	1164	609	110	170	-994	-85
	SDH	54	49	-5	-9	45	-4	-8
	Total	1229	1843	614	50	735	-1108	-60
Akola	PHCs	90	105	15	17	71	-34	-32
	RH	55	44	-11	-20	36	-8	-18
	SCs	178	245	67	38	193	-52	-21
	SDH	35	28	-7	-20	25	-3	-11
	Total	358	422	64	18	325	-97	-23
Amravati	DH	135	203	68	50	142	-61	-30
	PHCs	168	53	-115	-68	29	-24	-45
	RH	99	69	-30	-30	57	-12	-17
	SCs	333	329	-4	-1	202	-127	-39
	SDH	107	99	-8	-7	74	-25	-25
	Total	842	753	-89	-11	504	-249	-33
Bhandara	DH	180	199	19	11	187	-12	-6
	PHCs	99	39	-60	-61	26	-13	-33
	RH	77	47	-30	-39	31	-16	-34
	SCs	193	352	159	82	224	-128	-36
	SDH	53	44	-9	-17	31	-13	-30
	Total	602	681	79	13	499	-182	-27
Beed	DH	135	106	-29	-21	83	-23	-22
	PHCs	150	126	-24	-16	113	-13	-10
	RH	88	69	-19	-22	60	-9	-13
	SCs	280	495	215	77	179	-316	-64
	SDH	88	117	29	33	81	-36	-31
	Total	741	913	172	23	516	-397	-43
Buldhana	DH	135	20	-115	-85	17	-3	-15
	PHCs	156	74	-82	-53	43	-31	-42
	RH	143	85	-58	-41	55	-30	-35
	SCs	280	351	71	25	208	-143	-41
	SDH	18	14	-4	-22	8	-6	-43
	Total	732	544	-188	-26	331	-213	-39
Chandrapur	PHCs	174	133	-41	-24	95	-38	-29
	RH	99	149	50	51	135	-14	-9
	SCs	339	508	169	50	385	-123	-24
	SDH	88	89	1	1	77	-12	-13
	Total	700	879	179	26	692	-187	-21
Chhatrapati Sambhajinagar	DH	90	180	90	100	180	0	0
	PHCs	150	99	-51	-34	48	-51	-52
	RH	110	177	67	61	169	-8	-5
	SCs	279	384	105	38	197	-187	-49
	SDH	71	242	171	241	145	-97	92
	Total	700	1082	382	55	739	-343	-32

Dharashiv	PHCs	126	84	-42	-33	70	-14	-17
	RH	66	64	-2	-3	59	-5	-8
	SCs	206	294	88	43	191	-103	-35
	SDH	124	103	-21	-17	88	-15	-15
	Total	522	545	23	4	408	-137	-25
Dhule	DH	45	106	61	136	91	-15	-14
	PHCs	123	110	-13	-11	62	-48	-44
	RH	55	63	8	15	55	-8	-13
	SCs	232	336	104	45	145	-191	-57
	SDH	53	82	29	55	58	-24	-29
	Total	508	697	189	37	411	-286	-41
Gadchiroli	DH	90	95	5	6	94	-1	-1
	PHCs	135	187	52	39	126	-61	-33
	RH	99	37	-62	-63	28	-9	-24
	SCs	376	495	119	32	237	-258	-52
	SDH	54	48	-6	-11	35	-13	-27
	Total	754	862	108	14	520	-342	-40
Gondia	PHCs	120	80	-40	-33	56	-24	-30
	RH	110	69	-41	-37	62	-7	-10
	SCs	238	516	278	117	359	-157	-30
	SDH	18	24	6	33	24	0	0
	Total	486	689	203	42	501	-188	-27
Hingoli	DH	45	120	75	167	86	-34	-28
	PHCs	72	37	-35	-49	12	-25	-68
	RH	33	24	-9	-27	17	-7	-29
	SCs	132	179	47	36	90	-89	-50
	SDH	53	65	12	23	55	-10	-15
	Total	335	425	90	27	260	-165	-39
Jalgaon	PHCs	231	210	-21	-9	159	-51	-24
	RH	209	116	-93	-44	107	-9	-8
	SCs	442	519	77	17	264	-255	-49
	SDH	71	53	-18	-25	17	-36	-68
	Total	953	898	-55	-6	547	-351	-39
Jalna	DH	45	92	47	104	63	-29	-32
	PHCs	120	77	-43	-36	46	-31	-40
	RH	77	58	-19	-25	44	-14	-24
	SCs	213	272	59	28	121	-151	-56
	SDH	18	12	-6	-33	10	-2	-17
	Total	473	511	38	8	284	-227	-44
Kolhapur	PHCs	219	275	56	26	120	-155	-56
	RH	165	119	-46	-28	77	-42	-35
	SCs	413	572	159	38	254	-318	-56
	SDH	89	77	-12	-13	63	-14	-18
	Total	886	1043	157	18	514	-529	-51
Latur	PHCs	138	50	-88	-64	23	-27	-54
	RH	121	217	96	79	193	-24	-11
	SCs	252	125	-127	-50	48	-77	-62
	SDH	18	18	0	0	15	-3	-17
	Total	529	410	-119	-22	279	-131	-32
Nagpur	PHCs	147	53	-94	-64	20	-33	-62
	RH	110	112	2	2	104	-8	-7
	SCs	316	317	1	0	180	-137	-43
	SDH	36	51	15	42	25	-26	-51
	Total	609	533	-76	-12	329	-204	-38
Nanded	DH	45	31	-14	-31	4	-27	-87
	PHCs	195	68	-127	-65	50	-18	-26
	RH	143	47	-96	-67	29	-18	-38

	SCs	377	379	2	1	249	-130	-34
	SDH	89	21	-68	-76	14	-7	-33
	Total	849	546	-303	-36	346	-200	-37
Nandurbar	PHCs	174	90	-84	-48	42	-48	-53
	RH	121	68	-53	-44	62	-6	-9
	SCs	290	437	147	51	178	-259	-59
	SDH	36	32	-4	-11	16	-16	-50
	Total	621	627	6	1	298	-329	-52
Nashik	DH	225	285	60	27	269	-16	-6
	PHCs	312	353	41	13	353	0	0
	RH	242	198	-44	-18	167	-31	-16
	SCs	277	591	314	113	591	0	0
	SDH	142	77	-65	-46	65	-12	-16
	Total	1198	1504	306	26	1445	-59	-4
Palghar	PHCs	138	278	140	101	276	-2	-1
	RH	99	64	-35	-35	63	-1	-2
	SCs	305	500	195	64	473	-27	-5
	SDH	88	12	-76	-86	12	0	0
	Total	630	854	224	36	824	-30	-4
Parbhani	DH	180	192	12	7	129	-63	-33
	PHCs	93	54	-39	-42	26	-28	-52
	RH	77	41	-36	-47	28	-13	-32
	SCs	214	0	-214	-100	0	0	0
	SDH	36	44	8	22	26	-18	-41
	Total	600	331	-269	-45	209	-122	-37
Pune	DH	90	159	69	77	126	-33	-21
	PHCs	288	134	-154	-53	61	-73	-54
	RH	231	125	-106	-46	93	-32	-26
	SCs	539	557	18	3	435	-122	-22
	SDH	106	27	-79	-75	23	-4	-15
	Total	1254	1002	-252	-20	738	-264	-26
Raigad	DH	90	152	62	69	107	-45	-30
	PHCs	156	109	-47	-30	61	-48	-44
	RH	88	112	24	27	66	-46	-41
	SCs	288	274	-14	-5	168	-106	-39
	SDH	142	135	-7	-5	95	-40	-30
	Total	764	782	18	2	497	-285	-36
Ratnagiri	DH	45	155	110	244	129	-26	-17
	PHCs	201	72	-129	-64	39	-33	-46
	RH	88	83	-5	-6	58	-25	-30
	SCs	378	409	31	8	205	-204	-50
	SDH	71	74	3	4	53	-21	-28
	Total	783	793	10	1	484	-309	-39
Sangli	PHCs	177	510	333	188	266	-244	-48
	RH	143	89	-54	-38	80	-9	-10
	SCs	320	320	0	0	299	-21	-7
	SDH	54	28	-26	-48	20	-8	-29
	Total	694	947	253	36	665	-282	-30
Satara	DH	90	131	41	46	82	-49	-37
	SDH	53	64	11	21	53	-11	-17
	PHCs	213	462	249	117	263	-199	-43
	RH	165	98	-67	-41	84	-14	-14
	SCs	400	470	70	18	289	-181	-39
	Total	921	1225	304	33	771	-454	-37
Sindhudurg	DH	135	160	25	19	129	-31	-19
	PHCs	114	38	-76	-67	19	-19	-50
	RH	66	68	2	3	50	-18	-26
	SCs	248	250	2	1	163	-87	-35

	SDH	88	125	37	42	95	-30	-24
	Total	651	641	-10	-2	456	-185	-29
Solapur	PHCs	231	895	664	287	520	-375	-42
	RH	154	69	-85	-55	44	-25	-36
	SCs	431	212	-219	-51	192	-20	-9
	SDH	71	56	-15	-21	52	-4	-7
	Total	887	1232	345	39	808	-424	-34
Thane	DH	135	176	41	30	139	-37	-21
	PHCs	99	63	-36	-36	28	-35	-56
	RH	66	51	-15	-23	46	-5	-10
	SCs	187	275	88	47	123	-152	-55
	SDH	88	59	-29	-33	38	-21	-36
	Total	575	624	49	9	374	-250	-40
Wardha	DH	90	113	23	26	84	-29	-26
	PHCs	81	63	-18	-22	39	-24	-38
	RH	88	76	-12	-14	62	-14	-18
	SCs	181	225	44	24	115	-110	-49
	SDH	53	53	0	0	33	-20	-38
	Total	493	530	37	8	333	-197	-37
Washim	DH	45	14	-31	-69	12	-2	-14
	PHCs	75	178	103	137	91	-87	-49
	RH	77	55	-22	-29	41	-14	-25
	SCs	153	144	-9	-6	76	-68	-47
	SDH	35	21	-14	-40	21	0	0
	Total	385	412	27	7	241	-171	-42
Yavatmal	PHCs	189	104	-85	-45	31	-73	-70
	RH	154	107	-47	-31	67	-40	-37
	SCs	435	542	107	25	303	-239	-44
	SDH	72	45	-27	-38	30	-15	-33
	Total	850	798	-52	-6	431	-367	-46
	Grand Total	24114	26578	2464	10	17314	9264	-35

Source: Information furnished by respective Health Care Institutions

Appendix 2.1 (C)
(Reference: Paragraph 2.3.1)

Availability of Paramedics in Primary and Secondary healthcare under PHD *vis-à-vis* requirement as per IPHS and sanctioned strength as of May 2023

Name of the District	HCIs	Requirement as per IPHS	Sanctioned Strength	Shortfall (-)/ excess(+) as per IPHS	Per centage of shortfall (-)/ excess(+) <i>vis-à-vis</i> requirement as per IPHS	Persons in position	Shortfall (-)/ excess(+) as per Sanctioned strength	Per centage of shortfall (-)/ excess(+) <i>vis-à-vis</i> sanctioned strength
Ahmednagar	DH	42	66	24	57	64	-2	-3
	PHCs	192	231	39	20	188	-43	-19
	RH	242	189	-53	-22	158	-31	-16
	SCs	0	571	571	NA	219	-352	-62
	SDH	81	27	-54	-67	25	-2	-7
	Total	557	1084	527	95	654	-430	-40
Akola	PHCs	60	124	64	107	77	-47	-38
	RH	55	28	-27	-49	25	-3	-11
	SCs	0	181	181	NA	119	-62	-34
	SDH	38	15	-23	-61	15	0	0
	Total	153	348	195	127	236	-112	-32
Amravati	DH	66	102	36	55	79	-23	-23
	PHCs	112	91	-21	-19	79	-12	-13
	RH	99	38	-61	-62	25	-13	-34
	SCs	0	0	0	NA	0	0	0
	SDH	146	41	-105	-72	28	-13	-32
	Total	423	272	-151	-36	211	-61	-22
Bhandara	DH	81	81	0	0	62	-19	-23
	PHCs	66	70	4	6	41	-29	-41
	RH	77	16	-61	-79	13	-3	-19
	SCs	0	0	0	NA	0	0	0
	SDH	65	22	-43	-66	20	-2	-9
	Total	289	189	-100	-35	136	-53	-28
Beed	DH	66	27	-39	-59	19	-8	-30
	PHCs	100	68	-32	-32	52	-16	-24
	RH	88	39	-49	-56	19	-20	-51
	SCs	0	308	308	NA	145	-163	-53
	SDH	103	44	-59	-57	26	-18	-41
	Total	357	486	129	36	261	-225	-46
Buldhana	DH	66	23	-43	-65	14	-9	-39
	PHCs	104	52	-52	-50	46	-6	-12
	RH	143	29	-114	-80	19	-10	-34
	SCs	0	0	0	NA	0	0	0
	SDH	27	7	-20	-74	5	-2	-29
	Total	340	111	-229	-67	84	-27	-24
Chandrapur	PHCs	116	269	153	132	201	-68	-25
	RH	99	48	-51	-52	44	-4	-8
	SCs	0	471	471	NA	348	-123	-26
	SDH	103	45	-58	-56	34	-11	-24
	Total	318	833	515	162	627	-206	-25
Chhatrapati Sambhajinagar	DH	42	19	-23	-55	19	0	0
	PHCs	100	64	-36	-36	51	-13	-20
	RH	110	70	-40	-36	63	-7	-10
	SCs	0	0	0	NA	0	0	0
	SDH	38	44	6	16	36	-8	-18
	Total	290	197	-93	-32	169	-28	-14

Dharashiv	PHCs	84	128	44	52	117	-11	-9
	RH	66	39	-27	-41	38	-1	-3
	SCs	0	211	211	NA	152	-59	-28
	SDH	157	38	-119	-76	36	-2	-5
	Total	307	416	109	36	343	-73	-18
Dhule	DH	31	29	-2	-6	19	-10	-34
	PHCs	82	131	49	60	107	-24	-18
	RH	55	25	-30	-55	25	0	0
	SCs	0	0	0	NA	0	0	0
	SDH	65	66	1	2	40	-26	-39
	Total	233	251	18	8	191	-60	-24
Gadchiroli	DH	42	119	77	183	80	-39	-33
	PHCs	90	203	113	126	168	-35	-17
	RH	99	25	-74	-75	13	-12	-48
	SCs	0	400	400	NA	252	-148	-37
	SDH	81	15	-66	-81	12	-3	-20
	Total	312	762	450	144	525	-237	-31
Gondia	PHCs	80	120	40	50	109	-11	-9
	RH	110	41	-69	-63	38	-3	-7
	SCs	0	258	258	NA	195	-63	-24
	SDH	27	22	-5	-19	22	0	0
	Total	217	441	224	103	364	-77	-17
Hingoli	DH	31	72	41	132	26	-46	-64
	PHCs	48	24	-24	-50	20	-4	-17
	RH	33	6	-27	-82	6	0	0
	SCs	0	0	0	NA	0	0	0
	SDH	65	38	-27	-42	22	-16	-42
	Total	177	140	-37	-21	74	-66	-47
Jalgaon	PHCs	154	77	-77	-50	59	-18	-23
	RH	209	102	-107	-51	61	-41	-40
	SCs	0	0	0	NA	0	0	0
	SDH	92	29	-63	-68	16	-13	-45
	Total	455	208	-247	-54	136	-72	-35
Jalna	DH	31	24	-7	-23	12	-12	-50
	PHCs	80	217	137	171	113	-104	-48
	RH	77	51	-26	-34	42	-9	-18
	SCs	0	272	272	NA	122	-150	-55
	SDH	27	9	-18	-67	8	-1	-11
	Total	215	573	358	167	297	-276	-48
Kolhapur	PHCs	146	91	-55	-38	65	-26	-29
	RH	165	92	-73	-44	77	-15	-16
	SCs	0	438	438	NA	256	-182	-42
	SDH	119	36	-83	-70	25	-11	-31
	Total	430	657	227	53	423	-234	-36
Latur	PHCs	92	46	-46	-50	38	-8	-17
	RH	121	259	138	114	225	-34	-13
	SCs	0	98	98	NA	63	-35	-36
	SDH	27	6	-21	-78	6	0	0
	Total	240	409	169	70	332	-77	-19
Nagpur	PHCs	98	85	-13	-13	70	-15	-18
	RH	110	66	-44	-40	62	-4	-6
	SCs	0	0	0	NA	0	0	0
	SDH	54	25	-29	-54	8	-17	-68
	Total	262	176	-86	-33	140	-36	-20
Nanded	DH	31	14	-17	-55	12	-2	-14
	PHCs	130	0	-130	-100	0	0	0
	RH	143	20	-123	-86	14	-6	-30

	SCs	0	0	0	NA	0	0	0
	SDH	119	16	-103	-87	9	-7	-44
	Total	423	50	-373	-88	35	-15	-30
Nandurbar	PHCs	116	116	0	0	101	-15	-13
	RH	121	21	-100	-83	20	-1	-5
	SCs	0	4	4	NA	1	-3	-75
	SDH	54	12	-42	-78	7	-5	-42
	Total	291	153	-138	-47	129	-24	-16
Nashik	DH	100	441	341	341	338	-103	-23
	PHCs	208	733	525	252	733	0	0
	RH	242	130	-112	-46	122	-8	-6
	SCs	0	591	591	NA	591	0	0
	SDH	184	59	-125	-68	17	-42	-71
	Total	734	1954	1220	166	1801	-153	-8
Palghar	PHCs	92	242	150	163	213	-29	-12
	RH	99	40	-59	-60	29	-11	-28
	SCs	0	307	307	NA	214	-93	-30
	SDH	103	8	-95	-92	8	0	0
	Total	294	597	303	103	464	-133	-22
Parbhani	DH	81	23	-58	-72	23	0	0
	PHCs	62	33	-29	-47	19	-14	-42
	RH	77	27	-50	-65	15	-12	-44
	SCs	0	2	2	NA	2	0	0
	SDH	54	15	-39	-72	12	-3	-20
	Total	274	100	-174	-64	71	-29	-29
Pune	DH	42	31	-11	-26	28	-3	-10
	PHCs	192	202	10	5	163	-39	-19
	RH	231	106	-125	-54	89	-17	-16
	SCs	0	0	0	NA	0	0	0
	SDH	130	3	-127	-98	2	-1	-33
	Total	595	342	-253	-43	282	-60	-18
Raigad	DH	42	67	25	60	31	-36	-54
	PHCs	104	150	46	44	104	-46	-31
	RH	88	73	-15	-17	52	-21	-29
	SCs	0	0	0	NA	0	0	0
	SDH	184	84	-100	-54	67	-17	-20
	Total	418	374	-44	-11	254	-120	-32
Ratnagiri	DH	31	26	-5	-16	22	-4	-15
	PHCs	134	215	81	60	175	-40	-19
	RH	88	41	-47	-53	34	-7	-17
	SCs	0	218	218	NA	131	-87	-40
	SDH	92	38	-54	-59	37	-1	-3
	Total	345	538	193	56	399	-139	-26
Sangli	PHCs	118	441	323	274	256	-185	-42
	RH	143	30	-113	-79	30	0	0
	SCs	0	320	320	NA	233	-87	-27
	SDH	81	13	-68	-84	11	-2	-15
	Total	342	804	462	135	530	-274	-34
Satara	DH	42	29	-13	-31	22	-7	0
	SDH	65	29	-36	-55	20	-9	-31
	PHCs	142	534	392	276	318	-216	-40
	RH	165	114	-51	-31	83	-31	-27
	SCs	0	457	457	NA	245	-212	-46
	Total	414	1163	749	181	688	-475	-41
Sindhudurg	DH	66	57	-9	-14	27	-30	-53
	PHCs	76	38	-38	-50	27	-11	-29
	RH	66	41	-25	-38	22	-19	-46
	SCs	0	0	0	NA	0	0	0

	SDH	103	104	1	1	55	-49	-47
	Total	311	240	-71	-23	131	-109	-45
Solapur	PHCs	154	661	507	329	483	-178	-27
	RH	154	106	-48	-31	79	-27	-25
	SCs	0	0	0	NA	0	0	0
	SDH	92	25	-67	-73	12	-13	-52
	Total	400	831	431	108	608	-218	-28
Thane	DH	66	72	6	9	44	-28	-39
	PHCs	66	38	-28	-42	36	-2	-5
	RH	66	35	-31	-47	26	-9	-26
	SCs	0	118	118	NA	55	-63	-53
	SDH	103	26	-77	-75	22	-4	-15
	Total	301	289	-12	-4	183	-106	-37
Wardha	DH	42	6	-36	-86	4	-2	-33
	PHCs	54	142	88	163	109	-33	-23
	RH	88	42	-46	-52	31	-11	-26
	SCs	0	152	152	NA	33	-119	-78
	SDH	65	14	-51	-78	8	-6	-43
	Total	249	356	107	43	185	-171	-48
Washim	DH	31	15	-16	-52	17	2	13
	PHCs	50	52	2	4	34	-18	-35
	RH	77	76	-1	-1	47	-29	-38
	SCs	0	152	152	NA	106	-46	-30
	SDH	38	22	-16	-42	18	-4	-18
	Total	196	317	121	62	222	-95	-30
Yavatmal	PHCs	126	87	-39	-31	66	-21	-24
	RH	154	79	-75	-49	53	-26	-33
	SCs	0	0	0	NA	0	0	0
	SDH	108	21	-87	-81	12	-9	-43
	Total	388	187	-201	-52	131	-56	-30
	Grand Total	11550	15809	4259	37	11282	-4527	-29

Source: Information furnished by respective Health Care Institutions

Appendix 2.2
(Reference: Paragraph 2.3.2.)

Availability of Specialist Doctors under the jurisdiction of PHD (as of March 2023)

Sr. No.	District	Sanctioned strength	Posts filled in	Posts vacant	Percentage of vacancies
1	Ahmednagar	133	67	66	50
2	Akola	60	31	29	48
3	Amravati	171	93	78	46
4	Beed	140	93	47	34
5	Bhandara	81	54	27	33
6	Buldana	144	84	60	42
7	Chandrapur	118	42	76	64
8	Chhatrapati Sambhajnagar	101	94	7	7
9	Dharashiv	98	61	37	38
10	Dhule	63	26	37	59
11	Gadchiroli	90	33	57	63
12	Gondia	94	28	66	70
13	Hingoli	81	71	10	12
14	Jalgaon	133	49	84	63
15	Jalna	76	74	2	3
16	Kolhapur	108	69	39	36
17	Latur	136	109	27	20
18	Mumbai	21	20	1	5
19	Nanded	117	69	48	41
20	Nashik	124	105	19	15
21	Nandurbar	113	32	81	72
22	Nagpur	230	172	58	25
23	Palghar	65	26	39	60
24	Parbhani	71	55	16	23
25	Pune	154	102	52	34
26	Raigad	100	59	41	41
27	Ratnagiri	92	24	68	74
28	Sangli	55	34	21	38
29	Satara	88	32	56	64
30	Sindhudurg	96	29	67	70
31	Solapur	72	58	14	19
32	Thane	163	128	35	21
33	Wardha	90	29	61	68
34	Washim	72	31	41	57
35	Yavatmal	92	37	55	60
Grand Total		3,642	2,120	1,522	42

Source: Information furnished by Director of Health Services, Mumbai

Appendix 2.3
(Reference: Paragraph 2.4)
Availability of Human Resources under the jurisdiction of MEDD as of May 2023

Sr. No	District	Name of the college	Teaching Faculty/Doctors				Nurses				Paramedics			
			Total sanctioned post	Men in position	Vacancy	Percentage	Total sanctioned post	Men in position	Vacancy	Percentage	Total sanctioned post	Men in position	Vacancy	Percentage
1	Akola	Government Medical College, Akola	132	95	37	28	4	0	4	100	64	38	26	41
2		Government Hospital, Akola	0	0	0	NA	383	288	95	25	52	24	28	54
3		Super Speciality Hospital, Akola	16	4	12	75	82	2	80	98	11	4	7	64
4	Beed	Medical College, Ambajogai, Beed	125	97	28	22	2	1	1	50	45	27	18	40
5		Government Hospital, Ambajogai, Beed	7	5	2	29	406	293	113	28	105	74	31	30
6	Chandrapur	Government Medical College, Chandrapur	88	68	20	23	0	0	0	NA	88	19	69	78
7		Government Hospital, Chandrapur	0	0	0	NA	431	119	312	72	122	70	52	43
8	Chhatrapati Sambhajinagar	Government Medical College, Chhatrapati Sambhajinagar	216	174	42	19	6	2	4	62	88	62	26	30
9		Government Hospital, Chhatrapati Sambhajinagar	38	18	20	53	896	668	228	25	119	93	26	22
10		Government Dental College, Chhatrapati Sambhajinagar	4	2	2	50	9	6	3	33	34	14	20	59
11		Cancer Hospital, Chhatrapati Sambhajinagar	64	42	22	34	296	96	200	68	69	32	37	54
12		Health Unit, Paithan, Chhatrapati Sambhajinagar	1	1	0	0	25	24	1	4	18	9	9	50

13		Super Speciality Hospital, Chhatrapati Sambhaji Nagar	12	7	5	42	82	1	81	99	6	4	2	33
14	Dharashiv	Government Medical College, Dharashiv	76	23	53	70	0	0	0	NA	14	0	14	100
15	Dhule	Shri Bhausaheb Hire Government Medical College, Dhule	129	87	42	33	2	2	0	0	102	67	35	34
16		Government General Hospital, Dhule	30	5	25	83	431	310	121	28	45	35	10	22
17	Gondia	Government Medical College, Gondia	88	67	21	24	0	0	0	NA	88	18	70	80
18		Government Hospital, Gondia	0	0	0	NA	431	131	290	67	120	49	71	59
19	Jalgaon	Government Medical College, Jalgaon	95	61	34	36	0	0	0	NA	65	14	51	78
20		Government Hospital, Jalgaon	0	0	0	NA	457	80*	377	99	123	25	98	80
21	Kolhapur	CSM Medical College, Kolhapur	127	85	42	33	4	0	4	100	54	18	36	67
22		PMR Hospital, Kolhapur	14	6	8	57	561	494	67	12	84	50	34	40
23		Trauma Care Centre, Kolhapur	9	3	6	67	0	0	0	NA	0	0	0	NA
24	Latur	Vilasrao Deshmukh Medical College, Latur	127	104	23	18	4	0	4	100	51	26	25	49
25		Vilasrao Deshmukh Hospital, Latur	0	0	0	NA	392	315	77	20	67	60	7	10
26		Super Speciality Hospital, Latur	16	2	14	88	82	1	81	99	11	2	9	82
27	Mumbai	Grant Medical College, Mumbai	327	204	123	38	24	10	14	58	161	111	50	31
28		Sir J. J. Group of Hospitals, Mumbai	25	15	10	38	1133	860	273	24	294	191	103	35
29		St. George's Hospital, Mumbai	6	2	4	67	384	280	104	27	81	55	26	32
30		Cama & Albless Hospital, Mumbai	3	1	2	67	410	294	116	28	80	52	28	35
31		Gokuldas Tejpal Hospital, Mumbai	7	2	5	71	431	361	70	16	79	50	29	37
32		Urban Health Centre, Bandra	9	2	7	78	39	33	6	15	21	15	6	29
33		Government Dental Hospital, Mumbai	2	0	2	100	5	0	5	100	0	0	0	NA
34		Government Dental College and Hospital, Mumbai	1	0	1	100	4	4	0	0	50	39	11	22

35	Nagpur	Government Medical College, Nagpur	322	235	87	27	1	1	0	0	151	119	32	21
36		Government Hospital, Nagpur	3	1	2	67	1174	948	226	19	121	71	50	41
37		Government Dental College, Nagpur	3	3	0	0	5	3	2	40	26	18	8	31
38		Health Unit, Nagpur	1	1	0	0	22	19	3	14	11	5	6	55
39		Trauma care Centre, Nagpur	24	12	12	50	84	72	12	14	12	7	5	42
40		Super Speciality Hospital, Nagpur	78	41	37	47	178	144	34	19	78	51	27	35
41		Indira Gandhi Government Medical College, Nagpur	156	120	36	23	2	1	1	50	50	26	24	48
42		Indira Gandhi Government Hospital, Nagpur	2	2	0	0	477	330	147	31	104	71	33	32
43		Dr Babasaheb Ambedkar Research Centre, Nagpur	0			NA	23	17	6	26	16	4	12	75
44	Nanded	Dr. Shankarrao Chauhan Government Medical College and Hospital, Nanded	121	90	31	26	1	1	0	0	101	84	17	17
45		Government Hospital, Nanded	2	0	2	100	593	406	187	32	47	39	8	15
46	Nandurbar	Government Medical College, Nandurbar	85	22	63	74	0	0	0	NA	33	0	33	100
47		Government Hospital, Nandurbar	1	0	1	100	0	0	0	NA	21	12	9	43
48	Palghar	Health Unit, Palghar	1	1	0	0	22	22	0	0	7	5	2	29
49	Parbhani	Government Medical College, Parbhani	47	0**	47	100	0	0	0	NA	0	0	0	NA
50	Pune	B.J. Medical College, Pune	277	188	89	32	4	4	0	0	129	88	41	32
51		Sassoon Hospital, Pune	20	2	18	90	1086	936	150	14	137	104	33	24
52		Health Unit, Pune	1	0	1	100	20	20	0	0	9	5	4	44
53		Trauma Care Centre, Pune	9	3	6	67	20	0	20	100	3	1	2	67
54		Government Medical College, Baramati	87	43	44	51	0	0	0	NA	91	28	63	69

55		Government Hospital, Baramati	0	0	0	NA	431	101	330	77	88	22	66	75
56	Raigad	Government medical college, Alibag	68	22	46	68	137	0	137	100	26	1	25	96
57	Sangli	Government Medical College, Miraj	154	112	42	27	3	2	1	33	103	40	63	61
58		Government Hospital, Miraj	9	1	8	89	391	286	105	27	104	60	44	42
59		General Hospital, Sangli	4	4	0	0	400	280	120	30	43	26	17	40
60		Health Unit Tasgaon, Sangli	1	0	1	100	20	17	3	15	12	2	10	83
61	Satara	Government Medical College, Satara	70	21	49	70	137	0	137	100	42	3	39	93
62	Sindhudurg	Government Medical College, Sindhudurg	75	18	57	76	137	0	137	100	26	1	25	96
63	Solapur	VM Medical College, Solapur	154	119	35	23	2	1	1	50	115	70	45	39
64		CSM General Hospital, Solapur	0	0	0	NA	586	367	219	37	54	22	32	59
65	Yavatmal	Government Medical College, Yavatmal	134	95	39	29	2	1	1	50	163	114	49	30
66		Government Medical College and Hospital, Yavatmal	0	0	0	NA	391	291	100	26				
67		Women Hospital, Yavatmal	3	1	2	67	59	37	22	37	3	2	1	33
68		Super Speciality Hospital, Yavatmal	16	2	14	88	82	2	80	98	11	0	11	100
		Total	3,722	2,341	1,381	37	13,906	8,994	4,912	35	4,348	2,448	1,900	44

*76 Nurses of PHD were working in Government Medical College Jalgaon on deputation

Source: Information furnished by Director, Medical Education and Research, Mumbai

The men-in-position in GMC, Parbhani was NIL as the HCI was to commence from academic year 2023-24

Appendix 2.4
(Reference: Paragraph 2.7)
Availability of manpower in HCIs in test-checked Municipal Corporations

Name of Municipal Corporation	Cadre	Sanctioned	Filled	Vacant	Vacancy percentage
Amravati	Medical officer (Class I & II)	22	10	12	55
	Administrative	0	0	0	0
	Paramedics	24	10	14	58
	Nurses	15	1	14	93
	Group D	24	3	21	88
	Total	85	24	61	72
Chandrapur	Medical officer (Class I & II)	7	7	0	0
	Administrative	21	21	0	0
	Paramedics	0	0	0	0
	Nurses	35	35	0	0
	Group D	7	7	0	0
	Total	70	70	0	0
Chhatrapati Sambhajanagar	Medical officer (Class I & II)	56	36	20	36
	Administrative	87	41	46	53
	Paramedics	23	16	7	30
	Nurses	199	167	32	16
	Group D	18	1	17	94
	Total	383	261	122	32
Jalgaon	Medical officer (Class I & II)	10	3	7	70
	Administrative	44	13	31	70
	Paramedics	22	11	11	50
	Nurses	46	16	30	65
	Group D	118	72	46	39
	Total	240	115	125	52
Kolhapur	Medical officer (Class I & II)	93	85	8	9
	Administrative	41	19	22	54
	Paramedics	36	19	17	47
	Nurses	121	71	50	41
	Group D	169	131	38	22
	Total	460	325	135	29
Brihanmumbai Municipal Corporation (test-checked hospitals)	Medical officer (Class I&II)	1526	855	671	44
	Administrative	641	395	246	38
	Paramedics	1056	585	471	45
	Nurses	2647	2331	316	12
	Group D	4288	2849	1439	34
	Total	10158	7015	3143	31
Nanded	Medical officer (Class I&II)	17	8	9	53
	Administrative	44	11	33	75
	Paramedics	11	4	7	64
	Nurses	21	11	10	48
	Group D	84	41	43	51
	Total	177	75	102	58
Pune	Medical officer (Class I&II)	398	165	233	59
	Administrative	70	16	54	77
	Paramedics	299	99	200	67

Name of Municipal Corporation	Cadre	Sanctioned	Filled	Vacant	Vacancy percentage
	Nurses	488	321	167	34
	Group D	417	209	208	50
	Total	1672	810	862	52
Pimpri-Chinchwad	Medical officer (Class I & II)	78	78	0	0
	Administrative	120	86	34	28
	Paramedics	88	51	37	42
	Nurses	211	150	61	29
	Group D	342	218	124	36
	Total	839	583	256	31
Total	Medical officer (Class I & II)	2207	1247	960	43
	Administrative	1068	602	466	44
	Paramedics	1559	795	764	49
	Nurses	3783	3103	680	18
	Group D	5467	3531	1936	35
	Total	14084	9278	4806	34

Source: Information furnished by Health Department of respective Municipal Corporations

Appendix 2.5
(Reference: Paragraph 2.9)
Manpower position in AYUSH colleges and hospitals as of May 2023

Sr. No.	Name of College	Doctor			Nurses			Paramedics			Others			Total		
		Sanction	Filled	Vacancy (%)	Sanction	Filled	Vacancy (%)	Sanction	Filled	Vacancy (%)	Sanction	Filled	Vacancy (%)	Sanction	Filled	Vacancy (%)
1	R A Podar College, Mumbai	72	65	7(10)	0	0	0	18	14	4(22)	71	50	21(30)	161	129	32(20)
2	Government Ayurved College, Nagpur	67	56	11(16)	0	0	0	11	9	2(18)	54	41	13(24)	132	106	26(20)
3	Government Ayurved College, Nanded	73	64	9(12)	0	0	0	14	12	2(14)	41	28	13(32)	128	104	24(19)
4	Government Ayurved College, Dharashiv	59	49	10(17)	0	0	0	14	5	9(64)	44	35	9(20)	117	89	28(24)
5	Government Ayurved College, Jalgaon	43	39	4(9)	0	0	0	10	0	10(100)	34	1	33(97)	87	40	47(54)
6	Government Ayurved College, Baramati, Pune	18	17	1(6)	0	0	0	7	0	7(100)	33	1	32(97)	58	18	40(69)
7	Government Homeopathy College, Jalgaon	11	10	1(9)	0	0	0	8	0	8(100)	24	0	24(100)	43	10	33(77)
8	R A Podar Hospital Mumbai	11	6	5(45)	61	46	15 (25)	8	5	3(38)	182	123	59(32)	262	180	82(31)
9	Government Ayurved Hospital, Nagpur	4	2	2(50)	45	29	16(36)	4	3	1(25)	117	78	39(33)	170	112	58(34)
10	Government Ayurved Hospital, Nanded	4	3	1(25)	39	19	20(51)	5	4	1(20)	119	92	27(23)	167	118	49(29)

Appendices

Sr. No.	Name of College	Doctor			Nurses			Paramedics			Others			Total		
		Sanction	Filled	Vacancy (%)	Sanction	Filled	Vacancy (%)	Sanction	Filled	Vacancy (%)	Sanction	Filled	Vacancy (%)	Sanction	Filled	Vacancy (%)
	Government Ayurved Hospital, Dharashiv	4	2	2(50)	27	20	7(26)	4	1	3(75)	103	60	43(42)	138	83	55(40)
12	Government Ayurved Hospital, Jalgaon	12	0	12(100)	62	10	52(84)	5	0	5(100)	26	4	22(85)	105	14	91(87)
13	Government Ayurved Hospital, Baramati	12	0	12(100)	71	9	62(87)	6	0	6(100)	37	0	37(100)	126	9	117(93)
14	Government Homeopathy Hospital, Jalgaon	5	4	1(20)	12	4	8(67)	3	0	3(100)	24	0	24(100)	44	8	36(82)
15	Government Ayurved Hospital, Pune (20 Bedded)	3	0	3(100)	5	1	4(80)	0	0	0	10	4	6(60)	18	5	13(72)
16	Government Homeopathy Hospital, Mumbai	4	0	4(100)	7	4	3(43)	0	0	0	29	18	11(38)	40	22	18(45)
	Total	402	317	85(21)	329	142	187(57)	117	53	64(55)	948	535	413(44)	1796	1047	749(42)

Source: Information furnished by Director, AYUSH, Mumbai

Appendix 3.1 A
(Reference: Paragraph 3.1.1.1 (iii) (b))
Availability of specialist OPD services in District Hospitals

Sr. No.	Name of Hospital	Services Checked	Availability	Shortage	Percentage of Shortage
1	District Hospital, Ahmednagar	12	12	0	0
2	District Hospital, Amravati	12	12	0	0
3	District Hospital, Beed	12	12	0	0
4	District Hospital, Bhandara	12	12	0	0
5	District Hospital, Buldhana	12	11	1	8
6	District Hospital, Chhatrapati Sambhajinagar	12	10	2	17
7	District Hospital, Dhule	12	9	3	25
8	District Hospital, Gadchiroli	12	12	0	0
9	District Hospital, Hingoli	12	11	1	8
10	District Hospital, Jalna	12	12	0	0
11	District Hospital, Nanded	12	10	2	17
12	District Hospital, Nashik	12	12	0	0
13	District Hospital, Parbhani	12	12	0	0
14	District Hospital, Pune	12	12	0	0
15	District Hospital, Raigad	12	12	0	0
16	District Hospital, Ratnagiri	12	10	2	17
17	District Hospital, Satara	12	12	0	0
18	District Hospital, Sindhudurg	12	12	0	0
19	District Hospital, Thane	12	12	0	0
20	District Hospital, Wardha	12	11	1	8
21	District Hospital, Washim	12	12	0	0

Source: Data furnished by Civil Surgeons of concerned District Hospitals (May 2023)

Appendix 3.1 B
(Reference: Paragraph 3.1.1.1 (iii) (b))
Availability of specialist OPD services in Government Medical Colleges and Hospitals

Sr. No.	District	Name of Medical College & Hospital	Services checked	Available services	Shortage	Percentage of Shortage
1	Akola	Government Medical College Hospital	11	11	0	0
2	Beed	Swami Ramanand Teerth Rural Medical College Hospital, Ambejogai	11	11	0	0
3	Chandrapur	Government Medical College Hospital	11	11	0	0
4	Chhatrapati Sambhajnagar	Government Medical College Hospital	11	10	1	9
5	Dharashiv	Government Medical College Hospital	11	11	0	0
6	Dhule	General Hospital	11	11	0	0
7	Gondia	Government Medical College Hospital	11	11	0	0
8	Jalgaon	Government Medical College Hospital	11	11	0	0
9	Kolhapur	Chhatrapati Pramilaraje Hospital	11	11	0	0
10	Latur	Government Medical College Hospital	11	11	0	0
11	Mumbai City	Cama & Albless Hospital	11	3	8*	73
12		G. T. Hospital	11	8	3	27
13		Sir J. J. Group of Hospital	11	11	0	0
14		St. George's Hospital	11	7	4	36
15	Nagpur	Dr. Babasaheb Ambedkar Hospital and Research Centre	11	6	5	45
16		Government Medical College Hospital	11	11	0	0
17		Meyo General Hospital	11	11	0	0
18	Nanded	Guru Govind Singh General Hospital	11	11	0	0
19	Nandurbar	Government Medical College Hospital	11	11	0	0
20	Pune	Government Medical College and General Hospital, Baramati	11	10	1	9
21		Sasoon General Hospital	11	11	0	0
22	Sangli	Padmabhushan Vasantdada Patil General Hospital	11	11	0	0
23		Government Medical College Hospital, Miraj	11	11	0	0
24	Satara	Government Medical College Hospital	11	11	0	0
25	Solapur	Chhatrapati Shivaji Maharaj General Hospital	11	11	0	0
26	Yavatmal	General Hospital	11	11	0	0
27		Women Hospital	11	2	9	82

Source: Data furnished by Dean/Medical Superintendents of concerned Medical Colleges and Hospitals (May 2023)

*Cama & Albless Hospital, Mumbai City is a teaching Hospital attached with Grant Medical College and is exclusively for women and children

Appendix 3.1 C
(Reference: Paragraph 3.1.1.1 (iii) (b))
Availability of specialist OPD services in Women Hospitals

Sr. No.	District	Name of Hospital	Services Checked	Available services	Shortage	Percentage of Shortage
1	Akola	Women Hospital	5	5	0	0
2	Amravati	District Women Hospital	5	4	1	20
3		Women Hospital, Achalpur	5	3	2	40
4	Beed	Women Hospital, Ambejogai	5	3	2	40
5		Women Hospital, Neknur	5	5	0	0
6	Buldhana	Women Hospital	5	2	3	60
7	Gadchiroli	Women Hospital	5	3	2	40
8	Gondia	B.G. Women Hospital	5	3	2	40
9	Hingoli	Women Hospital, Basmat	5	2	3	60
10	Jalna	Women Hospital	5	3	2	40
11	Latur	Women Hospital	5	4	1	20
12	Nagpur	Daga Women Hospital	5	3	2	40
13	Nanded	Women Hospital	5	5	0	0
14	Nashik	Women Hospital, Malegaon	5	2	3	60
15	Parbhani	Women Hospital	5	3	2	40
16	Pune	Women Hospital, Baramati	5	3	2	40
17	Sindhudurg	Women Hospital	5	3	2	40
18	Thane	Government Maternity Hospital, Ulhasnagar	5	4	1	20
19	Washim	Women Hospital	5	2	3	60

Source: Data furnished by Medical Superintendent of concerned Women Hospitals (May 2023)

Appendix 3.2
(Reference: Paragraph 3.1.1.2 (i) (b))
Services available in test-checked PHCs

Sr. No.	District	Name of PHC (PHC, Taluka, District)	Emergency Services	Minor Surgeries	Ante-natal Care	Intra-natal Care	Post-natal Care	New born Care	Medical Termination of Pregnancy	Tubectomy and Vasectomy
1	Amravati	Anjangaon bari	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
2		Kalamkhar	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
3		Kokarda	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
4		Pathrot	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
5		Vichori	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
6	Chandrapur	Antargaon	Yes	No	Yes	Yes	Yes	Yes	No	Yes
7		Chiroli,	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
8		Kothari	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
9		Sawari	Yes	Yes	Yes	Yes	Yes	Yes	No	No
10		Tadali	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
11	Chhatrapati Sambhajinagar	Amthana	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12		Borsar	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
13		Daulatabad	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
14		Jikthan	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
15		Lasurstation	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
16	Jalgaon	Kasoda	Yes	Yes	Yes	Yes	Yes	Yes	No	No
17		Kinhi	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18		Mandal	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
19		Mangrul	Yes	Yes	Yes	Yes	Yes	No	No	Yes
20		Patoda	Yes	Yes	Yes	Yes	Yes	Yes	No	No
21	Kolhapur	Danoli	Yes	Yes	Yes	No	Yes	Yes	No	Yes
22		Pattan	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
23		Sidhanerli	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
24		Tudiye	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
25		Uchalgaon	Yes	No	Yes	Yes	Yes	Yes	No	No
26	Nanded	Ashta	Yes	No	Yes	Yes	Yes	Yes	No	Yes
27		Chandola	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
28		Malakoli	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
29		Rohi Pimpalgaon	Under construction							
30		Sonkhed	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
31	Pune	Aptale	Yes	No	Yes	Yes	Yes	Yes	No	Yes
32		Hol	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
33		Khed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
34		Rajgurunagar	Under construction							
35		Walhe	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		Total	33	29	33	32	33	32	7	28

Source: Data furnished by Medical Officer of respective Primary Health Centre

Appendix 3.3 A
(Reference: Paragraph 3.1.1.3 (i))
Availability of emergency services in District Hospitals

Sr. No.	Name Of Hospital	Services checked	Available services	Shortage	Percentage of shortage
1	District Hospital, Ahmednagar	10	10	0	0
2	District Hospital, Amravati	10	10	0	0
3	District Hospital, Beed	10	10	0	0
4	District Hospital, Bhandara	10	10	0	0
5	District Hospital, Buldhana	10	10	0	0
6	District Hospital, Chhatrapati Sambhajnagar	10	8	2	20
7	District Hospital, Dhule	10	6	4	40
8	District Hospital, Gadchiroli	10	10	0	0
9	District Hospital, Hingoli	10	10	0	0
10	District Hospital, Jalna	10	10	0	0
11	District Hospital, Nanded	10	10	0	0
12	District Hospital, Nashik	10	10	0	0
13	District Hospital, Parbhani	10	10	0	0
14	District Hospital, Pune	10	10	0	0
15	District Hospital, Raigad	10	10	0	0
16	District Hospital, Ratnagiri	10	10	0	0
17	District Hospital, Satara	10	10	0	0
18	District Hospital, Sindhudurg	10	10	0	0
19	District Hospital, Thane	10	10	0	0
20	District Hospital, Wardha	10	10	0	0
21	District Hospital, Washim	10	10	0	0

Source: Data furnished by District Hospitals (May 2023)

Appendix 3.3 B
(Reference: Paragraph 3.1.1.3 (i))

Availability of emergency services in Medical Colleges and Hospitals

Sl. No.	District	Name Of Hospital	Services checked	Available services	Shortage	Percentage of shortage
1	Akola	Government Medical College Hospital	10	10	0	0
2	Chhatrapati Sambhajnagar	Cancer Hospital	10	7	3	30
3		Government Medical College Hospital	10	10	0	0
4	Beed	Swami Ramanand Teerth Rural Medical College Hospital, Ambejogai	10	10	0	0
5	Chandrapur	Government Medical College Hospital	10	10	0	0
6	Dhule	General Hospital	10	10	0	0
7	Gondia	Government Medical College Hospital	10	8	2	20
8	Jalgaon	Government Medical College Hospital	10	10	0	0
9	Kolhapur	Chhatrapati Pramilaraje Hospital	10	10	0	0
10	Latur	Government Medical College Hospital	10	10	0	0
11	Mumbai City	Cama & Albless Hospital	10	6	4	40
12		St. George's Hospital,	10	10	0	0
13		G. T Hospital	10	10	0	0
14		Sir J.J. Group of Hospital	10	9	1	10
15	Nagpur	Government Medical College Hospital	10	10	0	0
16		Meyo General Hospital	10	9	1	10
17		Super-Speciality Hospital	10	0	10	100*
18	Nanded	Guru Govind Singh General Hospital	10	10	0	0
19	Nandurbar	Government Medical College Hospital	10	10	0	0
20	Dharashiv	Government Medical College Hospital	10	8	2	20
21	Pune	Government Medical College and General Hospital, Baramati	10	8	2	20
22		Sasoon General Hospital	10	10	0	0
23	Sangli	Government Medical College Hospital, Miraj	10	10	0	0
24		Padmabhushan Vasantdada Patil General Hospital	10	10	0	0
25	Satara	Government Medical College Hospital	10	10	0	0
26	Solapur	Chhatrapati Shivaji Maharaj General Hospital	10	10	0	0
27	Yavatmal	General Hospital	10	10	0	0
28		Women Hospital	10	2	8	80

Source: Data collected from Medical college and Hospitals (May 2023)

* Emergency services are available in Government Medical College, Nagpur situated in same campus

Appendix 3.4
(Reference: Paragraph 3.1.1.3 (ii))
Average surgeries per doctor in test-checked DHs and GMCHs

Sr. No.	District	Name of HCI	Total No. of Surgeries	Number of Surgeons	Average No. of surgeries per Surgeon
District Hospital					
1	Amravati	District Hospital, Amravati	6505	25	260
2	Chhatrapati Sambhajnagar	District Hospital, Chhatrapati Sambhajnagar	1895	16	118
3	Nanded	District Hospital, Nanded	1635	19	86
4	Pune	District Hospital, Pune	3673	36	102
Government Medical College Hospital					
1	Chandrapur	Government Medical College Hospital, Chandrapur	18970	29	654
2	Chhatrapati Sambhajnagar	Government Medical College Hospital, Chhatrapati Sambhajnagar	30532	52	587
3	Jalgaon	Government Medical College Hospital, Jalgaon	12381	29	427
4	Kolhapur	Chhatrapati Pramilaraje Hospital, Kolhapur	10023	42	239
5	Mumbai City	Cama & Albless Hospital Mumbai City	2485	10	249
6		Gokuldas Tejpal Hospital Mumbai City	1639	7	234
7		Sir J.J. Group of Hospitals Mumbai City	34187	84	407
8		St. George's Hospital, Mumbai City	702	5	140
9	Nanded	Guru Govindsing General Hospital, Nanded	11350	61	186
10	Pune	Sasoon General Hospital, Pune	64924	66	984
11		Government Medical College and General Hospital, Baramati, Pune	619	22	28

Source: Data furnished by Civil Surgeon of District Hospitals and Dean of Government Medical College & Hospitals (May 2023)

Appendix 3.5
(Reference: Paragraph: 3.1.1.3 (iii))

Availability of essential equipment in Trauma Care Centre as of February 2024

Sr. No.	Name of Equipment	Required	SDH Shilod		SDH Warora		RH Bhokar		GMCH Jalgaon		SDH Achalpur	
			Available	Shortage (-)/ Excess (+)	Available	Shortage (-)/ Excess (+)	Available	Shortage (-)/ Excess (+)	Available	Shortage (-)/ Excess (+)	Available	Shortage (-)/ Excess (+)
1	ICU Bed	5	5	0	5	0	0	-5	15	10	5	0
2	Ultrasonography (Trolley based)	1	0	-1	0	-1	1	0	0	-1	1	0
3	100 MA Portable X-ray Machine	1	1	0	1	0	1	0	1	0	1	0
4	OT Table-3 segment, Translucent top with Orthopaedic attachment	2	0	-2	1	-1	0	-2	2	0	2	0
5	Suction Machine	4	1	-3	2	-2	1	-3	1	-3	4	0
6	Ventilator with high end compressor	4	4	0	4	0	0	-4	15	11	4	0
7	Anaesthesia Machine with Monitor Parameters: Agent monitoring, NIBP, SPO2, ET CO2, ECG, Temp, IBP	2	0	-2	1	-1	1	-1	2	0	1	-1
8	ABG Machine - hand held Analyser	1	0	-1	0	-1	0	-1	0	-1	1	0
9	Defibrillator with Monitor (Parameters: NIBP, ECG, SPO2, NIBP, ATCO2)	5	1	-4	1	-4	0	-5	5	0	4	-1
10	Monitor (Large screen with ECG, SPO2, NIBP, ATCO2)	5	1	-4	5	0	0	-5	10	5	5	0

Source: Information furnished by TCCs

Appendix 3.6 A
(Reference: Paragraph 3.1.1.6 (i) (a))
Availability of diagnostic services in District Hospitals

Sr. No.	Name Of Hospital	Services checked	Available services	Shortage	Percentage of shortage
1	District Hospital, Ahmednagar	4	4	0	0
2	District Hospital, Amravati	4	4	0	0
3	District Hospital, Beed	4	3	1	25
4	District Hospital, Bhandara	4	4	0	0
5	District Hospital, Buldhana	4	4	0	0
6	District Hospital, Chhatrapati Sambhajnagar	4	3	1	25
7	District Hospital, Dhule	4	3	1	25
8	District Hospital, Gadchiroli	4	4	0	0
9	District Hospital, Hingoli	4	4	0	0
10	District Hospital, Jalna	4	4	0	0
11	District Hospital, Nanded	4	2	2	50
12	District Hospital, Nashik	4	4	0	0
13	District Hospital, Parbhani	4	4	0	0
14	District Hospital, Pune	4	3	1	25
15	District Hospital, Raigad	4	3	1	25
16	District Hospital, Ratnagiri	4	3	1	25
17	District Hospital, Satara	4	3	1	25
18	District Hospital, Sindhudurg	4	3	1	25
19	District Hospital, Thane	4	4	0	0
20	District Hospital, Wardha	4	3	1	25
21	District Hospital, Washim	4	4	0	0

Source: Data furnished by Civil Surgeon of District Hospitals (May 2023)

Appendix 3.6 B
(Reference: Paragraph 3.1.1.6 (i) (a))
Availability of diagnostic services in Medical Colleges & Hospitals

Sr. No.	District	Name Of Hospital	Services checked	Available services	Shortage	Percentage of shortage
1	Akola	Government Medical College Hospital	4	4	0	0
2	Beed	Swami Ramanand Teerth Rural Medical College Hospital, Ambejogai	4	4	0	0
3	Chandrapur	Government Medical College Hospital	4	4	0	0
4	Chhatrapati Sambhajnagar	Cancer Hospital	4	3	1	25
5		Government Medical College Hospital	4	3	1	25
6	Dhule	General Hospital	4	4	0	0
7	Gondia	Government Medical College Hospital	4	4	0	0
8	Jalgaon	Government Medical College Hospital	4	4	0	0
9	Kolhapur	Chhatrapati Pramilaraje Hospital	4	4	0	0
10	Latur	Government Medical College Hospital	4	4	0	0
11	Mumbai City	Cama & Albless Hospital	4	3	1	25
12		G. T Hospital	4	3	1	25
13		SIR J.J. Group of Hospital	4	4	0	0
14		St. George's Hospital	4	3	1	25
15	Nagpur	Dr. Babasaheb Ambedkar Hospital and Research Centre	4	3	1	25
16		Government Medical College Hospital	4	3	1	25
17		Meyo General Hospital	4	3	1	25
18		Super-Speciality Hospital	4	4	0	0
19	Nanded	Guru Govindsing General Hospital	4	3	1	25
20	Nandurbar	Government Medical College Hospital	4	4	0	0
21	Dharashiv	Government Medical College Hospital	4	2	2	50
22	Pune	Government Medical College and General Hospital, Baramati	4	4	0	0
23	Pune	Sasoon General Hospital	4	4	0	0
24	Sangli	Government Medical College Hospital, Miraj	4	3	1	25
25		Padmabhushan Vasantdada Patil General Hospital	4	4	0	0
26	Satara	Government Medical College Hospital	4	3	1	25
27	Solapur	Chhatrapati Shivaji Maharaj General Hospital	4	4	0	0
28	Yavatmal	General Hospital	4	3	1	25
29		Womens Hospital	4	3	1	25

Source: Data furnished by Dean/Medical Superintendent of concerned Medical College and Hospitals (May 2023)

No dental x-ray service in 15 HCIs

Appendix 3.7
(Reference: Paragraph 3.1.2.2(ii))
Ambulance services in districts of Maharashtra

Sr. No.	District	Total requirement	Available services	Excess (+)/ Shortage (-)	Per cent
1	Ahmednagar	46	40	-6	-13
2	Akola	16	16	0	0
3	Amravati	27	31	4	15
4	Beed	26	19	-7	-27
5	Bhandara	12	11	-1	-8
6	Buldhana	26	23	-3	-12
7	Chandrapur	20	23	3	15
8	Chhatrapati Sambhajinagar	32	31	-1	-3
9	Dharashiv	17	15	-2	-12
10	Dhule	20	18	-2	-10
11	Gadchiroli	12	10	-2	-17
12	Gondia	13	15	2	15
13	Hingoli	12	12	0	0
14	Jalgaon	39	35	-4	-10
15	Jalna	20	15	-5	-25
16	Kolhapur	37	36	-1	-3
17	Latur	23	20	-3	-13
18	Mumbai and Mumbai Suburban	69	91	22	32
19	Nagpur	34	40	6	18
20	Nanded	32	25	-7	-22
21	Nandurbar	17	14	-3	-18
22	Nashik	53	46	-7	-13
23	Parbhani	17	13	-4	-24
24	Pune	73	82	9	12
25	Raigad	24	23	-1	-4
26	Ratnagiri	16	17	1	6
27	Sangli	27	24	-3	-11
28	Satara	30	32	2	7
29	Sindhudurg	9	12	3	33
30	Solapur	41	35	-6	-15
31	Thane	76	68	-8	-11
32	Wardha	12	11	-1	-8
33	Washim	12	11	-1	-8
34	Yavatmal	27	23	-4	-15
	Total	967	937	30	

Source: Data furnished by Maharashtra Medical Emergency Services, Mumbai

Appendix 4.1

(Reference: Paragraph 4.2)

Funds provided by MEDD and PHD for purchase of medicine and equipment

A) Funds provided by DHS/NHM/DMER for Medicines

Funds provided by DHS/NHM (₹ in crore)					
Year	Funds provided	Supply order issued	Expenditure incurred	Refund, if any	Balance
2017-18	64.4	28.43	23.34	33.04	8.02
	146.47	117.57	109.3	0	37.17
Sub-total	210.87	146.00	132.64	33.04	45.19
2018-19	80.53	12.15	11.96	0	68.57
	231.1	233.35	216.73	0	14.37
Sub-total	311.63	245.50	228.69	0	82.94
2019-20	60.04	15.13	14.2	0	45.84
	146.87	311.27	263.09	0	-116.22
Sub-total	206.91	326.40	277.29	0	-70.38
2020-21	72.2	15.29	2.78	0	69.42
	223.64	163.72	175.9	0	47.74
	167.93	189.85	132.82	0	35.11
	387.57	301.13	249.27	0	138.3
Sub-total	851.34	669.99	560.77	0	290.57
2021-22	45.55	0.00	0	0	45.55
	16.64	39.28	5.66	0	10.98
	0	330.42	149.19	0	-149.19
Sub-total	62.19	369.70	154.85	0	-92.66
Total	1642.94	1757.59	1354.24	33.04	255.66
Funds provided by DMER (₹ in crore)					
2017-18	0	0	0	0	0
2018-19	127.83	238.75	30.86	0	96.97
2019-20	85.78	0	101.13	1.36	-16.71
2020-21	113.59	34.65	19.35	0	94.24
	322.85	249.41	197.94	0.14	124.77
Sub-total	650.05	522.81	349.28	1.5	299.27
2021-22	110.48	45.87	5.23	0	105.25
	81.42	82.49	19.33	0	62.09
Sub-total	191.9	128.36	24.56	0	167.34
Total	841.95	651.17	373.84	1.5	466.61

Summarised status of funds provided by DHS/NHM/DMER for Medicines (₹ in crore)

Year	Funds provided	Supply order issued	Expenditure incurred	Refund, if any	Balance
2017-18	210.87	146.00	132.64	33.04	45.19
2018-19	439.46	484.25	259.55	0	179.91
2019-20	292.69	326.40	378.42	1.36	-87.09
2020-21	1287.78	954.05	778.06	0.14	509.58
2021-22	254.09	498.06	179.41	0	74.68
Total	2484.89	2408.76	1728.08	34.54	722.27

B) Funds provided by DHS/NHM/DMER for Equipment

Funds provided by DHS/NHM (₹ in crore)					
Year	Funds provided	Supply order issued	Expenditure incurred	Refund, if any	Balance
2017-18	51.47	27.26	19.91	1.34	30.22
2018-19	144.98	30.15	23.56	5.83	115.59
2019-20	89.66	39.81	1.5	0	88.16
	0	0.67	0	0	0
Sub-total	89.66	40.48	1.50	0	88.16
2020-21	73.01	0.47	0	0	73.01
2021-22	3.81	0	0	0	3.81
	18.32	18.32	18.32	0	0
Sub-total	22.13	18.32	18.32	0	3.81
Total	381.25	116.68	63.29	7.17	310.79
Funds provided by DMER (₹ in crore)					
2017-18	221.6	130.56	105.41	67.65	48.54
2018-19	209.87	83.11	71.87	27.18	110.82
2019-20	442.35	183.45	87.75	23.11	331.49
2020-21	289.53	51.65	29.72	0	259.81
2021-22	161.14	5.50	0	0	161.14
	107.42	0.13	0	0	107.42
Sub-total	268.56	5.63	0	0	268.56
Total	1,431.91	454.40	294.75	117.94	1,019.22

Summarised status of funds provided by DHS/NHM/DMER for Equipment (₹ in crore)

Year	Funds provided	Supply order issued	Expenditure incurred	Refund, if any	Balance
2017-18	273.07	157.82	125.32	68.99	78.76
2018-19	354.85	113.26	95.43	33.01	226.41
2019-20	532.01	223.93	89.25	23.11	419.65
2020-21	362.54	52.12	29.72	0	332.82
2021-22	290.69	23.95	18.32	0	272.37
Total	1,813.16	571.08	358.04	125.11	1,330.01

C) Summarised status of funds provided by DHS/NHM/DMER for Medicines and Equipment (₹ in crore)

Year	Funds provided	Supply order issued	Expenditure incurred	Refund, if any	Balance
2017-18	483.94	303.82	257.96	102.03	123.95
2018-19	794.31	597.51	354.98	33.01	406.32
2019-20	824.70	550.33	467.67	24.47	332.56
2020-21	1,650.32	1,006.17	807.78	0.14	842.40
2021-22	544.78	522.01	197.73	0	347.05
Total	4,298.05	2,979.84	2,086.12	159.65	2,052.28

Source: Information provided by the HBPCCL

Appendix 4.2
(Reference: Paragraph 4.3.1)

Non-supply of medicines and consumables in test checked HCIs

Year	Items demanded	Items supplied	Items not supplied	Percentage of non-supplied items
Government Medical College and Hospital and Government Cancer Hospital, Chhatrapati Sambhajinagar				
2017-18	406	0	406	100
2018-19	1120	332	788	70
2019-20	1398	314	1084	78
2020-21	1286	234	1052	82
2021-22	912	78	834	91
Government Dental College and Hospital, Chhatrapati Sambhajinagar				
2020-21	23	0	23	100
2021-22	9	0	9	100
Government Medical College and Hospital, Chandrapur				
2018-19	1030	258	772	75
2019-20	1066	255	811	76
2020-21	786	249	537	68
2021-22	673	13	660	98
Government Medical College and Hospital, Jalgaon				
2018-19	604	465	139	23
2019-20	751	146	605	81
2020-21	1002	229	773	77
2021-22	232	164	68	29
Government Medical College and Hospital, Kolhapur				
2017-18	1619	0	1619	100
2018-19	810	295	515	64
2019-20	894	333	561	63
2020-21	412	285	127	31
2021-22	340	259	81	24
Cama and Albless Hospital, Mumbai				
2018-19	218	185	33	15
2019-20	140	122	18	13
2020-21	148	127	21	14
2021-22	446	190	256	57
G.T. Hospital, Mumbai				
2018-19	478	180	298	62
2019-20	445	212	233	52
2020-21	409	146	263	64
2021-22	406	151	255	63
Sir J.J. Group of Hospitals, Mumbai				
2018-19	368	244	124	34
2019-20	808	99	709	88
2020-21	401	25	376	94
2021-22	256	6	250	98
St. George Hospital, Mumbai				
2017-20	894	369	525	59
2020-21	214	67	147	69
2021-22	181	0	181	100
Guru Govind Singh General Hospital, Nanded				
2018-19	314	284	30	10
2019-20	179	153	26	15
2020-21	253	212	41	16
Sassoon General Hospital, Pune				
2018-19	908	189	719	79
2019-20	1465	285	1180	81

2020-21	719	218	501	70
Government Medical College General Hospital, Baramati, Pune				
2020-21	294	7	287	98
2021-22	332	95	237	71
Total	25,649	7,475	18,174	71

Source: Information furnished by the test-checked HCIs

Note: Government Cancer Hospital, Chhatrapati Sambhajanagar is part of Government Medical College, Chhatrapati Sambhajanagar. However, Government Cancer Hospital, Chhatrapati Sambhajanagar issues separate indent to HBPCCL for purchase of medicines and consumable items.

Appendix 5.1
(Reference: Paragraph 5.6.1)
Sanctioned beds in District Hospitals against IPHS

Sr. No.	Name of HCI	Population of District as per 2011 census	Required Beds*	Sanctioned Beds	Excess (+)/ Shortage (-)	Excess (+)/ Shortage (-) (per cent)
1	DH, Ahmednagar	4543159	999	282	-717	-72
2	DH, Amravati	2888445	635	379	-256	-40
3	DH, Beed	2585049	569	320	-249	-44
4	DH, Bhandara	1200334	264	482	218	83
5	DH, Buldhana	2586258	569	306	-263	-46
6	DH, Chhatrapati Sambhajinagar	3701282	814	220	-594	-73
7	DH, Dhule	2050862	451	100	-351	-78
8	DH, Gadchiroli	1072942	236	284	48	20
9	DH, Hingoli	1177345	259	200	-59	-23
10	DH, Jalna	1959046	431	200	-231	-54
11	DH, Nanded	3361292	739	100	-639	-86
12	DH, Nashik	6107187	1344	607	-737	-55
13	DH, Parbhani	1836086	404	406	2	0
14	DH, Pune	9429408	2074	300	-1774	-86
15	DH, Raigad	2634200	580	282	-298	-51
16	DH, Ratnagiri	1615069	355	200	-155	-44
17	DH, Satara	3003741	661	242	-419	-63
18	DH, Sindhudurg	849651	187	330	143	76
19	DH, Thane	8070032	1775	336	-1439	-81
20	DH, Wardha	1300774	286	286	0	0
21	DH, Washim	1197160	263	200	-63	-24
	Total		13895	6062	-7833	-56

Source: Calculation made as per 2011 census and Data collected and furnished by Civil Surgeons of District Hospitals (May 2023)

*For 80 per cent occupancy, beds required are 220. Therefore, required beds = Population of District/1000000*220

Appendix 5.2 A
(Reference: Paragraph 5.6.2)
Availability of beds for Maternal and Child Care services in District Hospitals

Sr. No.	Name of HCI	Required No. of Beds	Available Beds	Shortage	Shortage (-)/ Excess(+) (per cent)
1	DH, Ahmednagar	103	150	47	46
2	DH, Amravati	183	55	-128	-70
3	DH, Beed	183	96	-87	-48
4	DH, Bhandara	183	241	58	32
5	DH, Buldhana	183	50	-133	-73
6	DH, Chhatrapati Sambhajnagar	103	97	-6	-6
7	DH, Dhule	73	45	-28	-38
8	DH, Gadchiroli	103	13	-90	-87
9	DH, Hingoli	73	103	30	41
10	DH, Jalna	73	30	-43	-59
11	DH, Nanded	73	Separate maternity and paediatrics wards were not available.		
12	DH, Nashik	183	133	-50	-27
13	DH, Parbhani	183	161	-22	-12
14	DH, Pune	103	98	-5	-5
15	DH, Raigad	103	56	-47	-46
16	DH, Ratnagiri	73	55	-18	-25
17	DH, Satara	103	77	-26	-25
18	DH, Sindhudurg	183	66	-117	-64
19	DH, Thane	183	109	-74	-40
20	DH, Wardha	103	75	-28	-27
21	DH, Washim	73	74	1	1

Source: Information furnished by Civil Surgeon of respective District Hospitals

Appendix 5.2 B
(Reference: Paragraph 5.6.2)

Availability of beds for Maternal and Child Care services in Medical Colleges & Hospitals

Sr. No.	District	Name of the Hospital attached to Government Medical College	Requirement	Available Beds	Shortage (-)/ Excess(+)	Shortage (-)/ Excess (+)
1	Akola	Government Medical College Hospital	220	197	-23	-10
2	Beed	Swami Ramanand Tirth Rural Medical College Hospital, Ambejogai	175	172	-3	-2
3	Chandrapur	Government Medical College Hospital	175	167	-8	-5
4	Chhatrapati Sambhajinagar	Government Medical College Hospital	220	126	-94	-43
5		Cancer Hospital	Service Not Available			
6	Dhule	General Hospital	175	160	-15	-9
7	Gondia	Government Medical College Hospital	175	101	-74	-42
8	Jalgaon	Government Medical College Hospital	175	200	25	14
9	Kolhapur	Chhatrapati Pramilaraje Hospital	100	70	-30	-30
10	Latur	Government Medical College Hospital	100	177	77	77
11	Mumbai City	Sir J. J. Group of Hospitals	270	191	167	62
12		St. Georges Hospital		105		
13		Cama & Albless Hospital		81		
14		G. T. Hospital		60		
15	Nagpur	Dr. Babasaheb Ambedkar Hospital and Research Centre	IPD Service Not Available			
16		Government Medical College Hospital	270	845	575	213
17		Meyo General Hospital	175	188	13	7
18		Super-Speciality Hospital	Service Not Available			
19	Nanded	Guru Govindsingh General Hospital	175	250	75	43
20	Nandurbar	Government Medical College Hospital	100	178	78	78
21	Dharashiv	Government Medical College Hospital	100	223	123	123
22	Pune	Government Medical College and General Hospital, Baramati	100	42	-58	-58
23		Sasoon General Hospital	270	701	431	160
24	Sangli	Padmabhushan Vasantdada Patil General Hospital	220	191	90	41
25		Government Medical College Hospital, Miraj		119		
26	Satara	Government Medical College Hospital	100	construction of hospital building was in progress		
27	Solapur	Chhatrapati Shivaji Maharaj General Hospital	220	373	153	70
28	Yavatmal	General Hospital	220	218	98	45
29		Women Hospital		100		

Source: Information furnished by Dean/Medical Superintendent of respective Medical College and Hospitals

Appendix 5.3
(Reference: Paragraph 5.6.3)
Availability of beds in test-checked CHCs (RHs) and PHCs

Sr. No.	District	Name of HCI	Sanctioned Beds	Available beds
Rural Hospital				
1	Amravati	Chandur Bazar	30	30
2		Dhamangaon Railway	30	30
3	Chandrapur	Ballarpur	30	30
4		Bhadrawati	30	30
5	Chhatrapati	Pishor	30	30
6	Sambhajinagar	Khultabad	30	30
7	Jalgaon	Pachora	30	30
8		Parola	30	30
9		Erandol	30	30
10	Kolhapur	Khupire	30	30
11		Kagal	30	30
12		Panhala	30	30
13	Nanded	Naigaon	30	30
14		Bhokar	30	30
15	Pune	Chakan	30	30
16		Shikrapur	30	30
17		Shirur	30	30
Primary Health Centres				
1	Amravati	Kalamkhar	10	7
2		Anjangaon-bari	8	8
3		Pathrot	7	7
4		Kokarda	5	5
5		Vichori	6	6
6	Chandrapur	Saori	2	2
7		Antargaon	16	16
8		Kothari	10	10
9		Chirolia	12	12
10		Tadali	10	10
11	Chhatrapati	Lasurstation	6	6
12	Sambhajinagar	Jikthan	6	6
13		Borsar	6	6
14		Amthana	6	6
15		Daulatabad	6	6
16	Jalgaon	Kinhi	6	6
17		Kasoda	10	2
18		Mandal	10	10
19		Mangrul	10	10
20		Patonda	2	2
21	Kolhapur	Danoli	6	6
22		Siddhanerli	6	6
23		Pattan Kodoli	8	8
24		Tudiye	9	5
25		Unchgaon	8	8
26	Nanded	Sonkhed	6	6
27		Malakoli	14	6
28		Astha	6	6
29		Rohimpalgaon	Under Renovation	
30		Chandola	6	4
31	Pune	Aptale	8	8
32		Walhe	6	6
33		Khedshivapur	6	6
34		Hol	4	4
35		Rajgurunagar	Under Renovation	

Source: Information furnished by Medical Superintendent/Medical Officer of Community Health Centres/Primary Health Centre

Appendix 5.4 A
(Reference: Paragraph 5.6.4)
Shortage of beds in District Hospitals

Sr. No.	Name of HCI	Sanctioned	Available	(+) Excess/ (-) Shortage	(+) Excess/ (-) Shortfall Percentage
1	DH, Ahmednagar	282	410	128	45
2	DH, Amravati	379	335	-44	-12
3	DH, Beed	320	320	0	0
4	DH, Bhandara	482	427	-55	-11
5	DH, Buldhana	306	208	-98	-32
6	DH, Chhatrapati Sambhajinagar	220	188	-32	-15
7	DH, Dhule	100	100	0	0
8	DH, Gadchiroli	284	203	-81	-29
9	DH, Hingoli	200	200	0	0
10	DH, Jalna	200	230	30	15
11	DH, Nanded	100	24	-76	-76
12	DH, Nashik	607	607	0	0
13	DH, Parbhani	406	321	-85	-21
14	DH, Pune	300	296	-4	-1
15	DH, Raigad	282	255	-27	-10
16	DH, Ratnagiri	200	200	0	0
17	DH, Satara	242	242	0	0
18	DH, Sindhudurg	330	330	0	0
19	DH, Thane	336	279	-57	-17
20	DH, Wardha	286	306	20	7
21	DH, Washim	200	200	0	0
	Total	6,062	5,681	-381	-6

Source: Data collected and furnished by Civil Surgeons of District Hospitals (May 2023)

Appendix 5.4 B
(Reference: Paragraph 5.6.4)
Shortage of beds in Women Hospitals

Sr. No.	District	Name of HCIs	Sanctioned	No. of Beds	(+) Excess/ (-) Shortage	(+) Excess/ (-) Shortfall Percentage
1	Akola	District Women Hospital	500	400	-100	-20
2	Amravati	District Women Hospital	200	194	-6	-3
3	Amravati	Women Hospital, Achalpur	100	100	0	0
4	Beed	Women Hospital, Ambejogai	100	60	-40	-40
5	Beed	Women Hospital, Neknur	60	71	11	18
6	Buldhana	Women Hospital	100	108	8	8
7	Gadchiroli	Women Hospital	100	100	0	0
8	Gondia	B G Women Hospital	100	72	-28	-28
9	Hingoli	Women Hospital, Basmat	60	60	0	0
10	Jalna	Women Hospital	60	95	35	58
11	Latur	Women Hospital	100	112	12	12
12	Nagpur	DAGA Women Hospital	335	345	10	3
13	Nanded	Women Hospital	100	110	10	10
14	Nashik	Women Hospital, Malegaon	100	27	-73	-73
15	Parbhani	Women Hospital	100	132	32	32
16	Pune	Women Hospital, Baramati	100	99	-1	-1
17	Sindhudurg	Women Hospital	100	96	-4	-4
18	Thane	Government Maternity Hospital, Ulhasnagar	50	65	15	30
19	Washim	Women Hospital	100	114	14	14
		Total	2,465	2,360	-105	-4

Source: Data furnished by Medical Superintendents of Women Hospitals concerned (May 2023)

Appendix 5.4 C
(Reference: Paragraph 5.6.4)
Shortage of beds in Medical Colleges and Hospitals

Sr. No.	Name of District	Name of the hospital attached to Government Medical College	Sanctioned beds	Available	(+) Excess/ (-) Shortage	(+) Excess/ (-) Shortfall Percentage
1	Akola	Government Medical College Hospital	500	737	237	47
2	Beed	Swami Ramanand Teerth Rural Medical College Hospital, Ambejogai	518	506	-12	-2
3	Chandrapur	Government Medical College Hospital	500	501	1	0
4	Chhatrapati Sambhajnagar	Government Medical College Hospital	1177	952	-225	-19
5	Chhatrapati Sambhajnagar	Cancer Hospital	100	100	0	0
6	Dharashiv	Government Medical College Hospital	430	523	93	22
7	Dhule	General Hospital	545	466	-79	-14
8	Gondia	Government Medical College Hospital	500	510	10	2
9	Jalgaon	Government Medical College Hospital	500	468	-32	-6
10	Kolhapur	Chhatrapati Pramila Raje Hospital	665	380	-285	-43
11	Latur	Government Medical College Hospital	500	303	-197	-39
12	Mumbai City	Sir J. J. Group of Hospitals	1352	930	-422	-31
13		St. George's Hospital	467	465	-2	0
14		Cama & Albless Hospital	505	338	-167	-33
15		G. T. Hospital	521	373	-148	-28
16	Nagpur	Dr. Babasaheb Ambedkar Hospital and Research Centre	0	0	0	No IPD service Available
17		Government Medical College Hospital	1401	2063	662	47
18		Meyo General Hospital	594	676	82	14
19		Super-Speciality Hospital	230	230	0	0
20	Nanded	Guru Govind Singh General Hospital	508	530	22	4
21	Nandurbar	Government Medical College Hospital	315	388	73	23
22	Pune	Government Medical College and General Hospital, Baramati	500	291	-209	-42
23		Sasoon General Hospital	1296	1341	45	3
24	Sangli	Padmabhushan Vasantdada Patil General Hospital	390	476	86	22
25		Government Medical College Hospital, Miraj	310	309	-1	0
26	Satara	Government Medical College Hospital	Construction of hospital building was in progress			
27	Solapur	Chhatrapati Shivaji Maharaj General Hospital, Solapur	733	958	225	31
28	Yavatmal	General Hospital	504	704	200	40
29		Women Hospital	90	100	10	11
		Total	15,651	15,618	-33	-0.2

Source: Data furnished by Dean/Medical Superintendent of Medical College and Hospitals concerned (May 2023)

Appendix 7.1

(Reference: Paragraph 7.4.1)

Position of the utilisation of funds under NUHM in the test-checked Municipal Corporations

(₹ in crore)

Year	Particulars	Amravati	Chhatrapati Sambhaji Nagar	Chandrapur	Jalgaon	Kolhapur	Mumbai	Nanded	Pune	Pimpri - Chinchwad
2016-17	Grant	2.70	5.62	1.02	1.90	3.22	28.96	2.89	11.98	8.14
	Expenditure	2.00	4.39	0.60	0.71	1.22	15.30	1.99	3.40	2.89
	Balance	0.70	1.23	0.42	1.19	2.00	13.66	0.90	8.58	5.25
	Percentage of saving	26	22	41	63	62	47	31	72	64
2017-18	Grant	2.38	13.85	2.2	3.07	3.53	76.14	7.90	10.55	7.27
	Expenditure	0.30	5.75	1.00	1.00	2.42	23.24	2.87	5.28	3.70
	Balance	2.08	8.10	1.20	2.07	1.11	52.90	5.03	5.27	3.570
	Percentage of saving	87	58	55	67	31	69	64	50	49
2018-19	Grant	6.83	11.06	1.81	2.79	4.11	57.90	6.21	14.99	8.02
	Expenditure	6.13	9.22	1.19	1.52	3.69	45.21	3.95	11.23	5.43
	Balance	0.70	1.84	0.62	1.27	0.42	12.69	2.26	3.76	2.59
	Percentage of saving	10	17	34	46	10	22	36	25	32
2019-20	Grant	5.00	10.68	1.95	3.89	4.72	60.79	6.59	17.12	8.44
	Expenditure	3.99	7.74	1.54	1.74	4.18	25.58	4.31	10.52	6.70
	Balance	1.01	2.94	0.41	2.15	0.54	35.21	2.28	6.60	1.74
	Percentage of saving	20	28	21	55	11	58	35	39	21
2020-21	Grant	7.00	17.75	2.73	7.79	6.11	59.18	8.48	22.06	9.76
	Expenditure	6.04	13.49	1.88	4.11	4.61	25.22	6.89	18.38	7.23
	Balance	0.96	4.26	0.85	3.68	1.50	33.96	1.59	3.68	2.53
	Percentage of saving	14	24	31	47	25	57	19	17	26

Source: Information furnished by Health Department of Municipal Corporations

Appendix 7.2
(Reference Para no 7.5.1)

Position of the utilisation of funds under NRHM in the selected districts

(₹ in crore)

Year	Particulars	Amravati	Chhatrapati Sambhaji Nagar	Chandrapur	Jalgaon	Kolhapur	Nanded	Pune
2016-17	Grant	11.74	39.65	32.64	37.5	36.27	40.87	48.35
	Expenditure	10.01	18.38	23.03	25.73	27.01	35.79	34.95
	Balance	1.73	21.27	9.61	11.77	9.26	5.08	13.40
	Percentage of savings	15	54	29	31	26	12	28
2017-18	Grant	13.06	38.13	41.77	39.41	38.51	52.54	51.94
	Expenditure	11.84	27.59	32.92	31.79	34.44	43.87	43.57
	Balance	1.22	10.54	8.85	7.62	4.07	8.67	8.37
	Percentage of savings	9	28	21	19	11	17	16
2018-19	Grant	18.41	36.97	61.99	56.75	45.42	61.77	75.41
	Expenditure	17.78	31.6	51.65	43.79	44.02	44.62	61.62
	Balance	0.63	5.37	10.34	12.96	1.40	17.15	13.79
	Percentage of savings	3	15	17	23	3	28	18
2019-20	Grant	14.32	45.96	72.88	100.25	60.76	79.17	118.91
	Expenditure	12.99	36.36	56.54	61.31	50.38	65.71	68.86
	Balance	1.33	9.60	16.34	38.94	10.38	13.46	50.05
	Percentage of savings	9	21	22	39	17	17	42
2020-21	Grant	14.40	49.32	79.59	105.3	81.57	123.33	115.07
	Expenditure	12.20	39.19	54.67	80.83	57.39	88.09	99.86
	Balance	2.20	10.13	24.92	24.47	24.18	35.24	15.21
	Percentage of savings	15	21	31	23	30	29	13
2021-22	Grant	13.01	78.23	65.54	104.14	293.17	96.35	103.72
	Expenditure	11.08	62.64	71.17	84.04	261.96	93.37	92.34
	Balance	1.93	15.59	-5.63	20.10	31.21	2.98	11.38
	Percentage of saving	15	20	-9	19	11	3	11

Source: Information furnished by District Health officers of concerned Districts.

Appendix 9.1
(Reference Para No. 9.4)
Performance of Maharashtra in 41 National Indicator Framework

SDG Target No.	Sr No.	Indicators	Target	Achievement of Maharashtra	Achievement of India	Position of Maharashtra w.r.t. India
3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births	1	3.1.1 Maternal Mortality Ratio (Per 100,000 live births) by 2030	70	33	97	Better
	2	3.1.2 Percentage of births attended by skilled health personnel (Period 5 years) by 2030	100	93.8	89.4	Better
	3	3.1.3 Percentage of births attended by skilled health personnel (Period 1 year) by 2030	100	NA	90.90	NA
	4	3.1.4 Percentage of women aged 15-49 years with a live birth, for last birth, who received antenatal care, four times or more (Period 5 years/1 year) by 2030	100	70.3	58.50	Better
3.2 By 2030, end preventable deaths of new borns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 live births and U-5 mortality to at least as low as 25 per 1000 live births	5	3.2.1 Under-five mortality rate (per 1000 live births) by 2030	25	18	32	Better
	6	3.2.2 Neonatal mortality rate (per 1000 live births) by 2030	12	11	20	Better
3.3 By 2030, end the epidemic of AIDS, TB, malaria and neglected tropical disease and combat hepatitis, water-borne diseases and other communicable diseases	7	3.3.1 Number of new HIV infections per 1000 uninfected population by 2030	0	0.03	0.05	Better
	8	3.3.2 Tuberculosis incidence per 100,000 population by 2025	0	148	197	Better
	9	3.3.3 Malaria incidence per 1000 population	0	0.12	0.13	Better
	10	3.3.4 Prevalence of Hepatitis 'B' per 100000 population by 2030	0	701	850	Better
	11	3.3.5 Dengue: Case Fatality Ratio by 2030	0	0.08	0.05	Below National average
	12	3.3.6 Proportion of grade-2 cases amongst new cases of Leprosy, (Per million population) by 2030	0	0.88	1.70	Better
	13	3.3.7 Percentage of blocks reporting less than 1 Kala Azar case per 10000 population out of the total endemic blocks by 2030	0	100	99.84	Better
	14	3.3.8 Percentage of districts reporting less than 1% Microfilaria rate (MF) out of Targeted endemic distress by 2030	0	55.56	41.46	Better

SDG Target No.	Sr No.	Indicators	Target	Achievement of Maharashtra	Achievement of India	Position of Maharashtra w.r.t. India
3.4 By 2030, reduce by one third premature mortality from non-communicable disease through prevention and treatment and promote mental health and well-being.	15	3.4.1 Number of deaths due to cancer by 2030	NA	17523	NA	NA
	16	3.4.2 Suicide mortality rate (per 1,00,000 population) by 2030	3.5	NA	12	NA
3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol	17	3.5.1 Number of persons treated in de-addiction centres (in number)	NA	NA	339588	NA
	18	3.5.2 Percentage of population (Men: 15-49 years & women: 15-49 years) who drink alcohol about once a week out of total population	NA	NA	M-43.4 F-36.6	NA
	19	3.5.3 Percentage of population (Men: 15-54 years & women: 15-49 years) who consume alcohol	NA	NA	M-18.7 F-1.3	NA
3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents	20	3.6.1 People killed/injured in road accidents (per 100,000 population)	5.81	NA	Death Rate-11.38, Injury Rate-27.20	NA
3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.	21	3.7.1 Percentage of currently married women aged 15-49 years who have their need for family planning satisfied with modern methods by 2030	NA	84.2	74.1	Better
	22	3.7.2 Adolescent birth rate (aged 15-19 years) per 1000 women in that age group by 2030	NA	NA	11.3	NA
	23	3.7.3 Percentage of institutional Births (5 years/1 year) by 2030	100	5Years 94.7	5 Years 88.6/ 1 year 90.6	Better
	24	3.7.4 Percentage of currently married women (15-49 years) who use any modern family planning methods by 2030	NA	63.8	56.4	Better
	25	3.7.5 Percentage of women aged 15-19 years who were already mothers or pregnant by 2030	NA	7.6	6.80	Below National average
3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe,	26	3.8.1 Percentage of currently married women (15-49 years) who use any modern family planning methods by 2030	NA	63.8	56.4	Better
	27	3.8.2 Proportion of population with large household expenditures	7.83	NA	>10 % 6.67	NA

SDG Target No.	Sr No.	Indicators	Target	Achievement of Maharashtra	Achievement of India	Position of Maharashtra w.r.t. India
effective, quality and affordable essential medicines and vaccines for all.		on health as a share of total household expenditure or income			>20 % 2.30	
	28	3.8.3 Percentage of people living with HIV currently receiving ART among the detected numbers of adults and children living with HIV	NA	78.20	86	Below National average
	29	3.8.4 Prevalence of hypertension among men and women aged 15 years and above (in percentage)	NA	M-20.9 F- 24.0	M-24 F- 21.3	M-Better F-Below National average
	30	3.8.5 Percentage of population in age group 15-49 who reported sought treatment out of total population in that age group having diabetes	NA	M-99.9 F- 99.9	M- 71.5 F-80.7	Better
	31	3.8.6 Percentage of women aged 30-49 who have- ever undergone Cervix examinations	NA	2.8	1.90	Better
	32	3.8.7 Percentage of TB cases successfully treated (cured plus treatment completed) among TB cases notified to the national health authorities during a specified period	85	87	86	Better
	33	3.8.8 Total physicians, nurses and midwives per 10,000 population	45	NA	NA	NA
3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	34	3.9.2 Proportion of men and women reporting Asthma in the age group 15-49 years by 2030	0	NA	M- 1.20 F- 1.60	NA
	35	3.9.3 Mortality rate attributed to unintentional poisoning (per 1,00,000 population)	0	NA	1.72	NA
3.a Strengthen the implementation of the WHO framework Convention on Tobacco Control in all countries, as appropriate	36	3.a.1 Percentage of adults 15 years and above with use of any kind of tobacco (smoking and smokeless)	NA	28.6	28.6	Same
3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable	37	3.b.1: Percentage of children age 12-23 months fully vaccinated with BCG, measles and three doses each of polio and DPT or Penta vaccine (excluding polio vaccine given at birth)	100	81.7	76.6	Better
	38	3.b.2 Budgetary allocation for Development of Health Research (in ₹ crore)	NA	NA	₹ 2980.0 crore	NA

SDG Target No.	Sr No.	Indicators	Target	Achievement of Maharashtra	Achievement of India	Position of Maharashtra w.r.t. India
essential medicines and vaccines.						
3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing states	39	3.c.1: Health worker density	45	NA	49.45	NA
	40	3.c.2 Percentage of government spending (including current and capital expenditure) in health sector to GDP by 2025	2.5	NA	1.74	NA
3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks	41	3.d.1 International Health regulations (IHR) capacity and health emergency preparedness	NA	NA	85	NA

Source SDG Progress report 2023 issued by MoSPI, GoI and data furnished by DHS, Mumbai

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