CHAPTER 1

INTRODUCTION

The focus of India's National Health Policy, 2017, is to strengthen the trust of the common man in the public healthcare system, by making it predictable, efficient, patient-centric, affordable and effective, with a comprehensive package of services and products that meet the immediate healthcare needs of most of the people. The policy also recognises the pivotal importance of the Sustainable Development Goals (SDG) in ensuring healthy lives and promoting well-being for all at all ages.

As per the NITI Aayog's report (Health Index, June 2019), the State of Odisha ranked 19, among 21 larger States, in the Health Index, with only Bihar and Uttar Pradesh, behind. Its position, in regard to the Health Index in the reference year (2017-18), in fact, deteriorated from the base year (2015-16), by 3.46 points. As such, there is a vast scope for improvement in the healthcare services at all levels, in order to enhance the faith of patients, in the services rendered by Government hospitals.

In this context, the performance of the public healthcare system, in the State of Odisha, is critical in achieving the goals of the National Health Policy and SDG - 3 (Health and Well Being), for the country as a whole. This assumes importance, as the health indicators, in Odisha, lag behind the national average, in a number of cases, as shown in **Table 1.1.**

Table 1.1: Health Indicators of Odisha, compared to India

| Sl. | Health indicator ¹ | Odisha | | India | |
|-----|--------------------------------|---------------|---------------|---------------|----------------|
| No. | rieattii iliuicator | 2016 | 2021 | 2016 | 2021 |
| 1 | Total Fertility Rate (TFR) | 2.1 | 1.8 | 2.2 | 2.0 |
| 2 | Institutional deliveries | 85.3 | 92.2 | 78.9 | 88.6 |
| 3 | Neo-natal Mortality Rate (NMR) | 28.2 | 27.0 | 29.5 | 24.9 |
| 4 | Infant Mortality Rate (IMR) | 39.6 | 36.3 | 40.7 | 35.2 |
| 5 | Under 5 Mortality Rate (U5MR) | 48.1 | 41.1 | 49.7 | 41.9 |
| 6 | Maternal Mortality Ratio (MMR) | 150 (2018) | 136 (2019) | 113 (2018) | 103 (2019) |
| 7 | Birth Rate | 18.6 | 18 (2019) | 20.4 | 19.7 (2019) |
| 8 | Death Rate | 7.8 | 7.1 (2019) | 6.4 | 6.0 (2019) |

(Source: National Family Health Survey (NFHS)-5, Sample Registration Systems (SRS) and Economic Survey, India, 2021-22)

TFR: Average number of children that would be born to a woman (15-49 years); **Institutional Deliveries**: Proportion of deliveries conducted in public and private health facilities against the number of estimated deliveries during the year; **NMR**: Number of neonatal deaths in a given year per 1,000 live births in that year; **MR**: Number of infant deaths in a year per 1,000 live births during the year; **V5MR**: Number of child deaths of less than 5 years per 1,000 live births during the year; **MMR**: Annual number of maternal deaths per 1,00,000 live births; **Birth Rate**: The number of live births per 1,000 estimated midyear population, in a given year; **Death Rate**: The number of deaths per 1,000 estimated midyear population in one year, at a given place

Thus, while the State is behind the national indicators in regard to certain health indicators, such as NMR, IMR and MMR, its position is slightly better in regard to TFR, institutional deliveries, U5MR, as compared to the National average.

1.1 Public Healthcare System in the State

The landscape of public healthcare facilities in Odisha, is structured into three levels, for providing primary care, secondary care and tertiary care, under the administrative control of the Health and Family Welfare Department, as discussed in **Table 1.2.**

Table 1.2: Three tier system of healthcare services in the State

| Primary Healthcare Service | Provided through Primary Health Centres (PHCs) and Sub-centers (SCs). A Sub-centre is the first point of contact between the health care system and the community. PHCs serve as the first port of call for a patient, to a qualified doctor in the public health system. While an SC is headed by an Auxiliary Nurse Midwife (ANM)/ Health Worker (Female), MBBS doctors look after the PHCs. |
|------------------------------------|---|
| Secondary Healthcare Service | Community Health Centres (CHCs), Sub-Divisional Hospitals (SDHs) and District Headquarter Hospitals (DHHs), constitute the secondary level of the public healthcare system. These health facilities provide curative and specialist healthcare services to the community. CHCs provide referral healthcare for cases from the PHCs, as also for patients in need of specialist care, approaching the centre directly. DHHs are responsible for providing comprehensive secondary health care services, at an acceptable level of quality. |
| Tertiary Healthcare Service | Tertiary healthcare refers to the third level of the health system, in which specialised consultative care is provided, usually on referral from primary and secondary medical care centres. Specialised intensive care units, advanced diagnostic support services and specialised medical personnel, are the key features of tertiary healthcare. Under the public health system, tertiary care service is provided by Medical College and Hospitals (MCH) and advanced medical research institutes. |

(Source: Indian Public Health Standards)

The healthcare facilities available in the State, as of March 2022, are given in **Table 1.3.**

Table 1.3: Healthcare Facilities in the State

| Sl. No. | Healthcare Facilities | Number | |
|---------|---|--------|--|
| 1 | Government Medical Colleges and Hospitals | 8 | |
| 2 | Private Medical Colleges and Hospitals | 4 | |
| 3 | Super Specialty Hospitals | 3 | |
| 4 | District Headquarter Hospitals (DHH) ² | 32 | |
| 5 | Sub-Divisional Hospitals (SDH) | 32 | |
| 6 | Community Health Centres (CHC) | 382 | |
| 7 | Primary Health Centres (PHC) | 1,340 | |
| 8 | Sub-Centres (SCs) | 6,688 | |

(Source: Data provided by the Directorate of Health Services, National Health Mission, Odisha)

² Including: (i) Capital Hospital, Bhubaneswar and (ii) Rourkela Government Hospital, Rourkela, being the two major hospitals in the State, with District Headquarter Hospital status

The availability of Medical Colleges and Hospitals and the All India Institute of Medical Sciences (AIIMS), is shown in **Map 1.1**.

Sundargarh Mayurbhanj 🗓 Keonjhar Deogarh Balasor Bhadrak Sonepur Angul Dhenkanal Jaipur Bolangir Kendrapara Guttack Nayagarh Jagatsinghpur Kalahandi Ganjam Náwarangapu Rayagada Koraput Symbology Private Medical College & Hospitals

Map 1.1: Districts having MCHs and AIIMS

The status (May 2023) of MCHs functioning in the State, including four new MCHs established during 2018-23, is given in *Appendix 1.1*.

Kilometers

200

150

1.2 Organisational set-up

Malkangiri

25 50

100

The Health and Family Welfare (H&FW) Department, GoO, is responsible for the management of healthcare services in the State. It formulates policies for providing health care services, with the assistance of its different Directorates.

In addition, the Odisha State Medical Corporation Limited (OSMCL) handles procurement of drugs, consumables and equipment, and their supply to various healthcare institutions in the State. Further, the Drug Controller, Odisha, issues licenses for drug manufacturing and sales establishments, Drug Testing Laboratories, Blood banks, *etc.* The detailed organisational structure of the Department is given in *Appendix 1.2*.

Govt. Medical College & Hospitals

Districts having Medical College & Hospitals

1.3 Audit Objectives

The Performance Audit of 'Public Health Infrastructure and Management of Health Services in the State' was undertaken with the objective of assessing the following:

- 1. Adequacy of funding for healthcare services in the State
- 2. Availability and management of the healthcare infrastructure in the State
- 3. Availability of drugs, medicines, equipment and other consumables, to meet the requirements of the beneficiaries adequately
- 4. Availability of necessary human resources (doctors, nurses, paramedics, *etc.*) at all levels
- 5. Adequacy and effectiveness of the regulatory mechanisms for ensuring quality healthcare services in the public/ private healthcare facilities
- 6. Whether spending on health has improved the health and wellbeing of the people, as per SDG 3
- 7. Efficiency of the State Government in Emergency Management

1.4 Audit Criteria

The audit criteria for the Performance Audit are derived from:

- National Health Policy, 2017
- Sustainable Development Goals
- Indian Public Health Standards (IPHS), 2012
- NHM Assessor's Guidebook and guidelines issued from time to time
- Kayakalpa Guidelines
- Indian Medical Council Act, 1956 / National Medical Commission Act, 2019
- Minimum Standard Requirements Regulations, 1999
- Clinical Establishment Act, 2010
- Odisha Clinical Establishment Act, 1991 and rules made thereunder
- Bio Medical Waste Management and Handling Rules, 1998 and Bio Medical Waste Management Rules, 2016
- Atomic Energy Regulatory Board guidelines for imaging units, etc.
- Standard Operating Procedures for management at COVID-19 hospitals/ units, GoO
- Odisha Budget Manual, and
- Departmental/ Government policies, rules, orders, manuals and regulations.

1.5 Scope and Methodology

The Performance Audit was conducted during January to August 2022, covering the period from financial years (FYs) 2016-17 to 2021-22. The Audit

methodology involved scrutiny of records at the Health and Family Welfare (H&FW) Department, Directorates and sampled units. Audit also involved document analysis, collection of information through questionnaires/ proforma, response to audit queries/ observations, patient-surveys through structured questionnaires, *etc*. Besides, joint physical inspection of hospital assets, substores and civil works, was also conducted. Analysis of the database of the web application (*e-Niramaya*) used by the OSMCL and hospitals was also conducted, through data-analysis tools, such as Microsoft Excel.

An Entry Conference was held on 7 January 2022, with the Additional Chief Secretary to Government of Odisha, H&FW Department, wherein the audit objectives, audit criteria, audit scope and methodology, were discussed.

The draft report was issued to the H&FW Department on 1 November 2022. The responses received from the Department have been suitably incorporated in the Report.

1.6 Audit Sampling

At the State level, the H&FW Department, with eight Controlling units, was selected for the Performance Audit. Two out of seven MCHs established prior to 2018 and seven out of 30 DHHs, had been selected, using the random sampling method. Similarly, two CHCs, under each DHH (total 14 CHCs), were selected, using the random sampling method. One PHC, under each sampled CHC, had been selected on judgmental basis. The details of sampling units are given in *Appendix 1.3*.

Keeping in mind the limitation of resources, the sampling strategy was designed to capture and evaluate appropriate amounts of unbiased data, to ensure that the Performance Audit was able to pick up variations across the entire audit period. Thus, a questionnaire was designed for the audit, to capture data at different frequencies - yearly, monthly and weekly.

To ensure variations/ coverage in the data recorded on monthly basis, different months of the audit period were covered. For this, each year was divided into four quarters and the middle month of each quarter was selected for capturing data for indicators, reported at monthly frequency. Following this, to capture weekly frequency, the first week of the selected months was selected, to maintain consistency.

Details of the years, months and weeks selected, are given in **Table 1.4.**

Table 1.4: Details of months and years, sampled for audit check

| Year | Quarter-1 | Quarter-2 | Quarter-3 | Quarter-4 | Weeks selected |
|---------|-----------|-------------|-----------|---------------|-------------------|
| 2016-17 | May 2016 | | | | 1-7 May 2016 |
| 2017-18 | | August 2017 | | | 1-7 August 2017 |
| 2018-19 | | | November | | 1-7 November 2018 |
| | | | 2018 | | |
| 2019-20 | | | | February 2020 | 1-7 February 2020 |
| 2020-21 | May 2020 | | | | 1-7 May 2020 |
| 2021-22 | | August 2021 | | | 1-7 August 2021 |

1.7 Structure of the Report

This report has been structured, keeping in mind the major components of healthcare, *i.e.* (i) Introduction, (ii) Human Resources, (iii) Healthcare Services,

(iv) Availability of Drugs, Medicines, Equipment and Other Consumables, (v) Healthcare Infrastructure, (vi) Financial Management, (vii) Implementation of Central and State sector health schemes, (viii) Adequacy and Effectiveness of the Regulatory Mechanisms and (ix) Sustainable Development Goal 3.

Audit findings, relating to the identified components, have been discussed in detail, in the succeeding chapters.

1.8 Acknowledgement

Audit acknowledges the co-operation of the H&FW Department, Government of Odisha, Directorate/ Controlling offices and the field functionaries, in the conduct of the audit.