



CHAPTER I

INTRODUCTION AND AUDIT FRAMEWORK



CHAPTER I

INTRODUCTION AND AUDIT FRAMEWORK

1.1 Introduction

India has a mixed healthcare system, inclusive of public and private healthcare service providers. To cater to the needs of the beneficiaries across the country, the Public Healthcare infrastructure has been developed as a three-tier system - primary, secondary and tertiary, based on the population norms. Health systems and policies have a critical role in determining the manner in which health services are delivered, utilised and affect health outcomes. The Indian Public Health Standard (IPHS) norms stipulate the distribution of healthcare infrastructure as well as the resources needed at each level of healthcare.

1.2 Health services

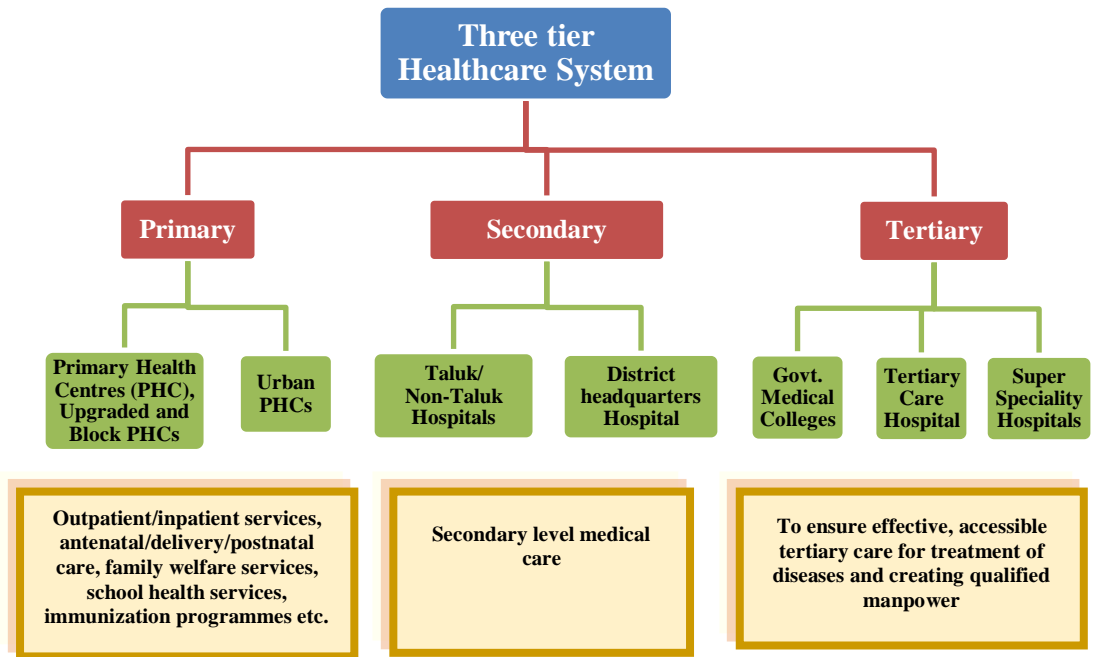
The domains considered for this Performance Audit is shown below.

<p><i>Line services</i></p> <ol style="list-style-type: none">Outpatient departmentInpatient departmentEmergency servicesSuper specialty (OT, ICU)MaternityBlood bankDiagnostic services	<p><i>Support services</i></p> <ol style="list-style-type: none">Oxygen servicesDietary serviceLaundry serviceBiomedical waste managementAmbulance serviceMortuary service
<p><i>Auxiliary services</i></p> <ol style="list-style-type: none">Patient safety facilitiesPatient registrationGrievance/complaint redressalStores	<p><i>Resource Management</i></p> <ol style="list-style-type: none">Building infrastructureHuman resourceDrugs and consumablesEquipment

1.3 Overview of healthcare facilities in the State

A schematic diagram of public health system in the State is given below in **Exhibit 1.1**.

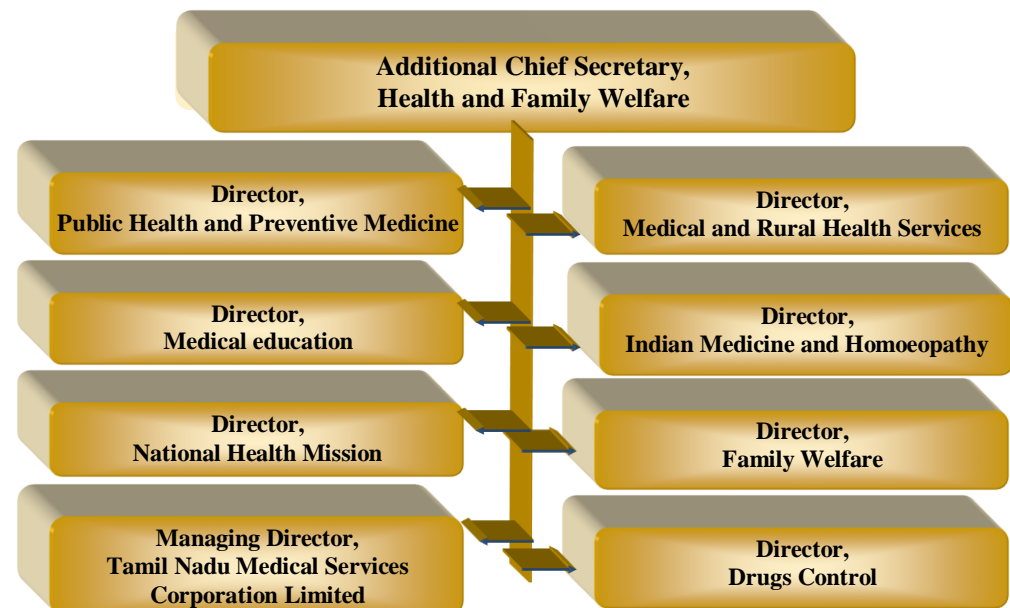
Exhibit 1.1: Schematic diagram of Public Health System in the State



1.4 Organisational set up

The Additional Chief Secretary (ACS), Health and Family Welfare (HFW) heads the Department at Government level. The Director of Medical Education (DME), the Director of Medical and Rural Health Services (DMRHS) and the Director of Public Health and Preventive Medicine (DPH) head the administrative structure for tertiary, secondary and primary care services respectively. An organisational chart of Public Health System in the State is given in Exhibit 1.2.

Exhibit 1.2: Organisational Chart of Public Health System in Tamil Nadu

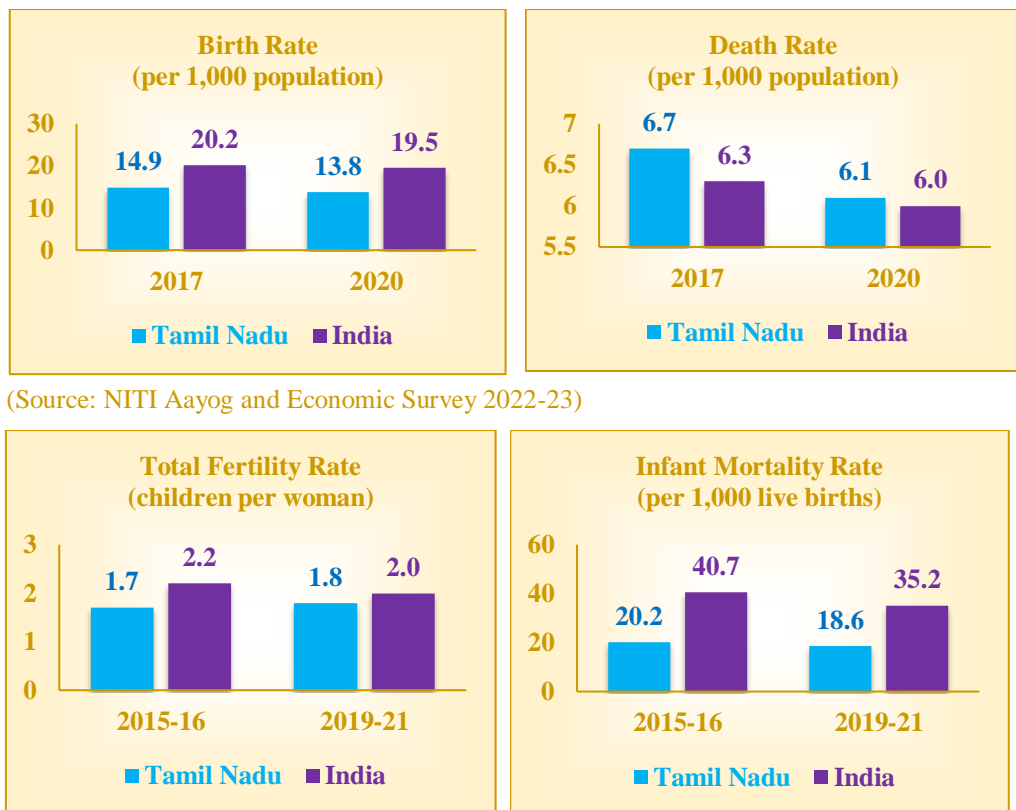


Procurement, testing, storage and distribution of drugs and medicines, consumables, medical equipment, etc., are carried out by the Tamil Nadu Medical Services Corporation Limited (TNMSC), headed by a Managing Director.

1.5 Status of Health Indicators in the State

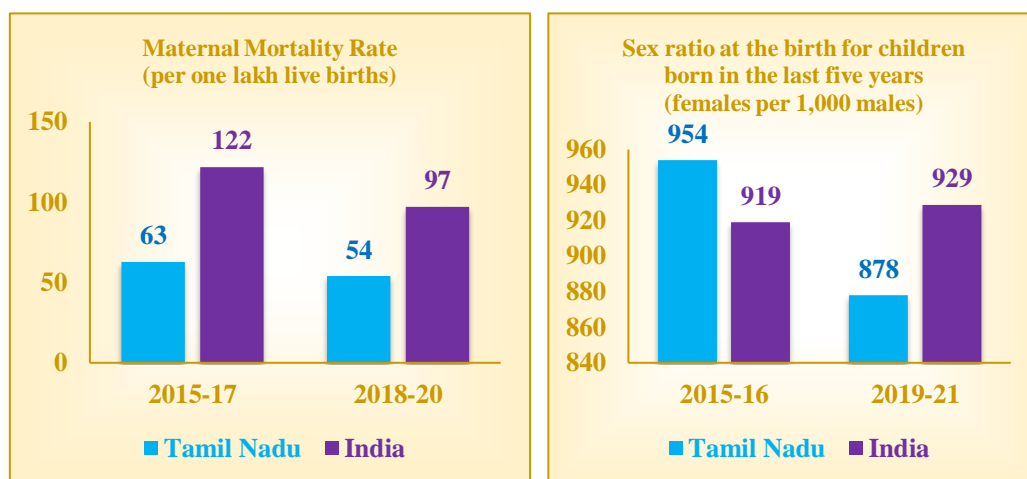
The World Health Organisation (WHO) defines Health as ‘a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity’. As health cannot be measured in exact measurable forms, Health indicators are helpful to provide a crude picture about the health scenario of a particular geographical area. Some of the major health indicators of the State are given in **Exhibit 1.3**.

Exhibit 1.3: Health Indicators in the State



(Source: NITI Aayog and Economic Survey 2022-23)

(Source: National Family Health Survey (NFHS) 4 and 5)



(Source: Sample Registration System (SRS) Statistical Reports and NFHS 4 and 5)

1.5.1 Health indicators of Tamil Nadu as compared with National Health Indicators as per NFHS surveys

The National Family Health Survey (NFHS), conducted under the Ministry of Health and Family Welfare (MoHFW), Government of India (GoI), provides information on population, health and nutrition for India and each State and Union Territory. The data pertaining to some of the major indicators of the State, as compared with that of the country, is given in **Table 1.1**.

Table 1.1: Health Indicators of Tamil Nadu as per NFHS-5

Indicator	NFHS -4 (2015-16)		NFHS-5 (2019-21)	
	Tamil Nadu	India	Tamil Nadu	India
Sex ratio of the total population (females per 1,000 males)	1,033	991	1,088	1,020
Sex ratio at birth for children born in the last five years (females per 1,000 males)	954	919	878	929
Total fertility rate (children per woman)	1.7	2.2	1.8	2
Neonatal mortality rate (NNMR)	14	29.5	12.7	24.9
Infant mortality rate (IMR)	20.2	40.7	18.6	35.2
Under-five mortality rate (U5MR)	26.8	49.7	22.3	41.9
Mothers who had an antenatal check-up in the first trimester (<i>per cent</i>)	64	58.6	77.4	70
Mothers who had at least four antenatal care visits (<i>per cent</i>)	81.1	51.2	89.9	58.1
Mothers whose last birth was protected against neonatal tetanus ¹ (<i>per cent</i>)	71	89	89.7	92
Mothers who consumed iron folic acid for 100 days or more when they were pregnant (<i>per cent</i>)	64	30.3	82.5	44.1
Mothers who consumed iron folic acid for 180 days or more when they were pregnant (<i>per cent</i>)	40.1	14.4	63.1	26

¹ Includes mothers administered with two injections during the pregnancy for their last birth, or two or more injections (the last within three years of the last live birth), or three or more injections (the last within five years of the last birth), or four or more injections (the last within 10 years of the last live birth), or five or more injections at any time prior to the last birth.

Indicator	NFHS -4 (2015-16)		NFHS-5 (2019-21)	
	Tamil Nadu	India	Tamil Nadu	India
Registered pregnancies for which the mother received a Mother and Child Protection (MCP) card (<i>per cent</i>)	96	89.3	98.8	95.9
Mothers who received postnatal care from a doctor/nurse/Lady Health Visitor/Auxiliary Nurse Midwife/midwife/other health personnel within two days of delivery (<i>per cent</i>)	74	62.4	93.2	78
Average out-of-pocket expenditure per delivery in a public health facility (₹)	2,609	3,197	3,316	2,916
Children born at home who were taken to a health facility for a check-up within 24-hour of birth (<i>per cent</i>)	11.3	2.5	N/A	4.2
Children who received postnatal care from a doctor/nurse/Lady Health Visitor/Auxiliary Nurse Midwife/midwife/other health personnel within two days of delivery (<i>per cent</i>)	35.4	24.3	94.9	79.1
Institutional births (<i>per cent</i>)	98.9	78.9	99.6	88.6
Institutional births in public facility (<i>per cent</i>)	66.7	52.1	66.9	61.9
Home births that were conducted by skilled health personnel ² (<i>per cent</i>)	0.6	4.3	0.2	3.2
Births attended by skilled health personnel (<i>per cent</i>)	99.2	81.4	99.8	89.4
Births delivered by caesarean section (<i>per cent</i>)	34.1	17.2	44.9	21.5
Births in a private health facility that were delivered by caesarean section (<i>per cent</i>)	51.3	40.9	63.8	47.4
Births in a public health facility that were delivered by caesarean section (<i>per cent</i>)	26.3	11.9	36	14.3

State health indicators, which have been shaded green above have improved, those which have deteriorated are shaded red.

(Source: NFHS 4 and NFHS 5)

1.6 Audit objectives

The Performance Audit on ‘Public Health Infrastructure and Management of Health Services’ was carried out to assess:

- the adequacy of funding for healthcare in the State;
- the availability and management of healthcare infrastructure in the State;
- the availability of drugs, medicines, equipment and other consumables;
- the availability of necessary human resource at all levels in the Healthcare Sector;
- whether various schemes of GoI were being implemented properly;
- the adequacy and effectiveness of the regulatory mechanisms for ensuring quality healthcare services; and
- whether State spending on health has improved the health and well-being of people as per the United Nations’ Sustainable Development Goal-3 (SDG-3).

² Doctor/Nurse/LHV/ANM/Midwife/other health personnel.

1.7 Audit criteria

The following criteria were adopted as benchmarks in the Performance Audit to arrive at the audit conclusions:

- ✓ National Health Policy, 2017
- ✓ Biomedical Waste Management Rules, 2016
- ✓ The National Medical Commission Act, 2019
- ✓ Atomic Energy (Radiation Protection) Rules, 2004
- ✓ Indian Public Health Standards, 2012
- ✓ Minimum Standards Requirement Regulations, 1999
- ✓ IMCAA (Professional Conduct, Etiquette and Ethics) Regulations, 2002
- ✓ World Health Organisation norms on bed/population ratio
- ✓ The Clinical Establishments (Registration and Regulation) Act, 2010
- ✓ United Nations' Sustainable Development Goals (SDG)
- ✓ The Tamil Nadu Clinical Establishment (Regulations) Act, 1997 and Rules
- ✓ National Accreditation Board for Hospitals, Blood Banks and healthcare providers, Testing and Calibration Laboratories
- ✓ Drugs and Cosmetics Act, 1940
- ✓ GoI/GoTN orders, circulars, etc.
- ✓ The National Commission for Homoeopathy Act, 2020

1.8 Audit Scope and Methodology

The Performance Audit covered healthcare facilities at primary, secondary and tertiary levels under Allopathy and Indian System of Medicine. The audit scope involved scrutiny of records relating to the period 2016-22. Audit examination included records of the Department at Government level; offices of the DME, DMRHS, DPH, Director, Indian Medicine and Homoeopathy (DIMH), Director, Family Welfare (DFW), Director, Drugs Control Administration (DAM) and the Commissioner of Municipal Administration. Further, the records of National Health Mission (NHM), Tamil Nadu Medical Services Corporation Limited (TNMSC), Medical Services Recruitment Board (MRB), the district offices³ and hospitals/healthcare institutions were also examined.

Audit methodology included scrutiny of files/records, gathering of evidence by issue of audit enquiries, Joint Physical Verification (JPV) in sampled units with departmental officials to assess the availability of health facilities. An Entry Conference was held with the Principal Secretary and Officer on Special Duty, HFW Department on 29 October 2021 to discuss the audit objectives, criteria,

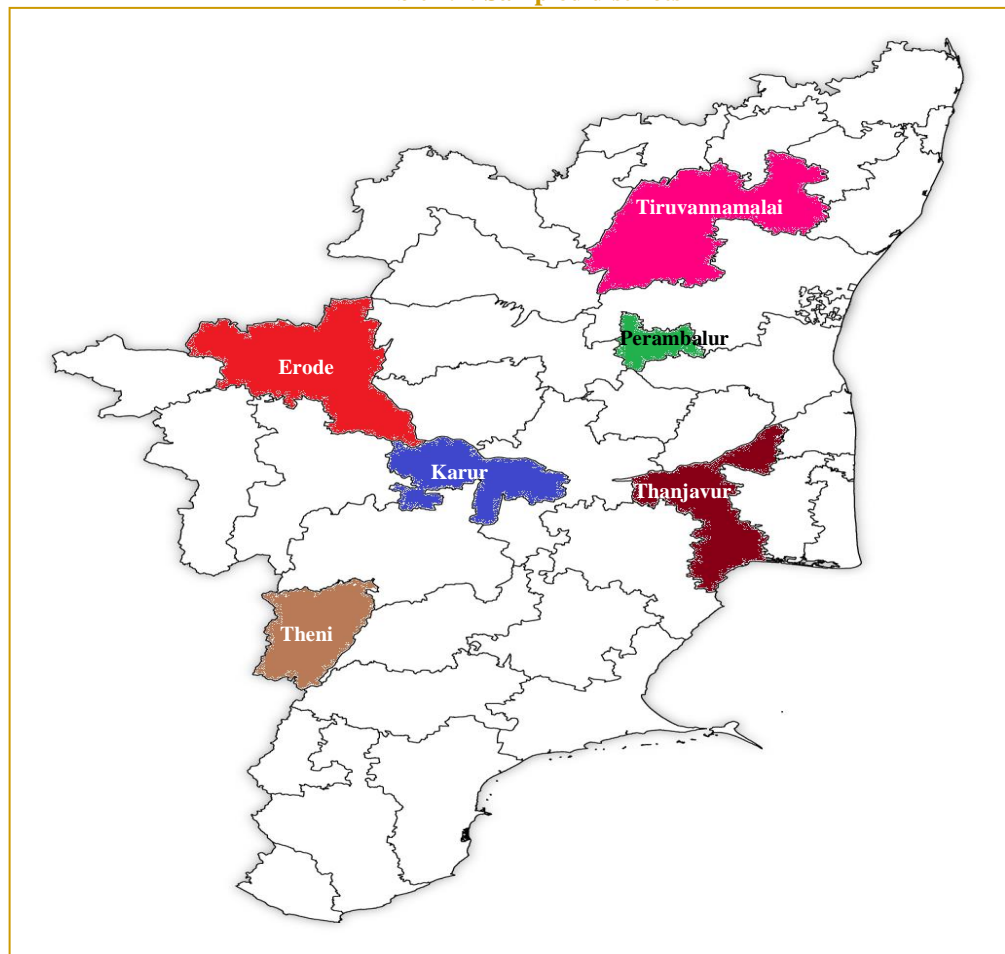
³ Joint Director of Health Services (JDHS); Deputy Director of Health Services (DDHS); District Siddha Medical Officer; District Warehouses of TNMSC; Regional Offices of Drug Control Administration.

scope, and methodology. On conclusion of the field audit, an Exit Conference was held with the Principal Secretary to Government and officers of the HFW Department on 29 August 2022. The reply of Government received in August 2022 on the audit observations were considered while drafting this Report.

1.9 Sampling Methodology

In Tamil Nadu, 1,807 Rural Primary Health Centres (PHCs) and 460 Urban PHCs are functioning under primary care; 18 District Headquarters hospitals (DHQH), 205 Taluk Hospitals (TKH) and 67 Non-Taluk Hospitals (NTKH) are functioning under secondary care and 65 Medical College Hospitals (MCH) are functioning under tertiary care. Out of these, 47 hospitals and healthcare facilities (HCFs) including 26 primary, 16 secondary and five tertiary care institutions in six districts viz., Erode, Karur, Perambalur, Thanjavur, Theni and Tiruvannamalai were selected based on random sampling method (**Appendix 1.1**). The sampled districts have been depicted on the State map in **Exhibit 1.4**.

Exhibit 1.4: Sampled districts



1.10 Consideration of Ayushman Bharat in this Report

Ayushman Bharat, a flagship scheme of GoI, was launched as recommended by the National Health Policy 2017, to achieve the vision of Universal Health Coverage (UHC). This initiative has been designed to meet Sustainable Development Goals (SDGs) and its underlining commitment, which is to 'leave no one behind' Ayushman Bharat adopts a continuum of care approach, comprising of two inter-related components, which are

- Health and Wellness Centres (HWCs)
- Pradhan Mantri Jan Arogya Yojana (PMJAY)

The salient features of HWCs and PMJAY is given in **Exhibit 1.5** and the details of both components are covered under **Chapter VII**. To a specific Audit enquiry, the Principal Director, Tamil Nadu Health Systems Project (TNHSP) replied (January 2024) that all the 2.84 crore eligible SECC beneficiaries in 38 districts of the State were registered under PMJAY.

Exhibit 1.5: Salient features of Health and Wellness Clinics and PMJAY

Health and Wellness Centres (HWCs)

- Creation of 1,50,000 HWCs by transforming the existing Sub Centres and Primary Health Centres in February 2018.
- Aim to deliver Comprehensive Primary Healthcare (CPHC) covering maternal and child health services and non-communicable diseases, including free essential drugs and diagnostic services.

PMJAY

- Aims to provide a cover of ₹5 lakh per family per year for secondary and tertiary care hospitalisation across public and private empaneled hospitals in India.
- Over 10.74 crore poor and vulnerable entitled families (approximately 50 crore beneficiaries) are eligible for these benefits.
- Provides cashless access to healthcare services for the beneficiary at the point of service, that is, the hospital.
- Benefits of the scheme are portable across the country i.e., a beneficiary can visit any empaneled public or private hospital in India to avail cashless treatment.
- Services include approximately 1,387 procedures covering all the costs related to treatment, including but not limited to drugs, supplies, diagnostic services, physician's fees, room charges, surgeon charges, Operation Theatre (OT) and Intensive Care Unit (ICU) charges etc.
- Public hospitals are reimbursed for the healthcare services at par with the private hospitals.

1.11 Doctors/Patients survey

A beneficiary survey was also conducted involving patients and doctors to examine the satisfaction and availability of infrastructure in the sampled HCFs, the findings of which are appropriately included in this Report.

1.12 Audit findings

The audit findings are grouped under the following Chapters.

- Chapter II : Human Resources
- Chapter III : Healthcare Services
- Chapter IV : Availability of Drugs, Medicine, Equipment and other Consumables
- Chapter V : Healthcare Infrastructure
- Chapter VI : Financial Management
- Chapter VII : Implementation of Centrally Sponsored Schemes
- Chapter VIII : Adequacy and Effectiveness of the Regulatory Mechanisms
- Chapter IX : Sustainable Development Goal-3