सत्यमेव जयते

Report of the Comptroller and Auditor General of India

Performance Audit on Public Health Infrastructure and Management of Health Services

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

Government of Tamil Nadu
Report No. 5 of the year 2024

Report of the
Comptroller and Auditor General of India

Performance Audit on
Public Health Infrastructure and
Management of Health Services

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PREFACE

This Report for the year ended March 2022 has been prepared for submission to the Governor of Tamil Nadu under Article 151 (2) of the Constitution of India, for being laid before the State Legislature.

The Report of the Comptroller and Auditor General of India contains the results of Performance Audit on Public Health Infrastructure and Management of Health Services in Tamil Nadu covering the period April 2016 to March 2022.

The instances mentioned in the Report are those, which came to notice in the course of the performance audit conducted during October 2021 to March 2022. Matters relating to the periods outside the audit period have also been reported in places where they were found necessary.

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

EXECUTIVE SUMMARY

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Why we did this Audit?

'Health is wealth' is an adage of far-reaching significance in a welfare State. Delivery of public health and medical services is one of the major functions of the State Government, with significant support from the Central Government. The system for healthcare delivery in the State is organised with three layers; Primary Health Centres (PHCs) providing the primary healthcare with greater focus of preventive care, District and Non-District hospitals providing secondary healthcare or the first level referral services, and the Medical College Hospitals at the top of the pyramid, providing the tertiary care or second level referral services.

Considering the importance of infrastructure and management of health services in ensuring a healthy nation and the priority accorded to health by both the Central and State Government, CAG took up this Performance Audit covering the activities during 2016-22. The objectives of this Audit were to assess the: (1) adequacy of the funding for healthcare, (2) availability and management of healthcare infrastructure, (3) availability of drugs, medicines, equipment and other consumables, (4) availability of necessary human resource at all levels, (5) effectiveness of implementing GoI schemes, (6) adequacy and effectiveness of the regulatory mechanisms for ensuring quality healthcare services and (7) achievements against Sustainable Development Goal (SDG) 3 targets.

What we found?

More than 75 *per cent* of shortage was found in certain posts like in Block Extension Educator, Family Welfare Assistant/Educator, Lady Health Visitor, Maternity Child Health Officer etc., in the Directorate of Family Welfare.

Recruitment of medical manpower lagged despite constituting a separate Board for recruitment of medical manpower. Further, large number of vacancies in the HCFs under the Directorate of Indian Medicine and Homoeopathy would not augur well for popularizing alternative medicines, which is a policy of Government.

GPS devices were not used in 25 *per cent* emergency calls resulting in non-availability of the details of ambulances that were in the vicinity of the accident/emergency site on a real-time basis.

Thirty six *per cent* of total deliveries were performed through Lower Segment Caesarean Section (LSCS) during 2019-21 in Government HCFs against the all India average of only 14 *per cent.*

There were non-supply/short supply of drugs to the hospitals. There were deficiencies such as procuring of short-expiry drugs, non-blacklisting of suppliers for deficiencies in supply, issues in quality control, etc. Lapses on the part of Tamil Nadu Medical Services Corporation (TNMSC) resulted in lifting of non-standard quality drugs for issue to the patients by Healthcare Facilities.

The equipment at HCFs did not have a subsisting Annual Maintenance Contract (AMC). The Heads of the sampled hospitals did not monitor the performance of Bio-Medical Engineers and failed to furnish the list of equipment to TNMSC for arranging AMC.

There were serious disconnect between the HCFs and the TNMSC in assessing the requirement and procuring only the required equipment resulting in procurement of unnecessary equipment.

As against National Health Policy's recommendation of earmarking eight *per cent of* the budget for health, Government spent only around five *per cent* of its budget for health. GoTN had no system to prioritise developmental activities based on gap analysis through formal facility survey.

Huge unutilized funds, sanctioned for procurement of drugs and equipment, were held by TNMSC and Tamil Nadu Medicinal Plant Farms and Herbal Medicine Corporation Ltd (TAMPCOL).

Due to the absence of a formal facility survey and gap assessment, GoTN could not prioritise the areas requiring development.

The building constructed for the National Centre for Ageing was not commissioned for more than two years due to non-provision of required manpower and equipment.

Janani Suraksha Yojana was not paid to 26 *per cent* out of all institutional deliveries in the sampled HCFs. Only 46 *per cent* of mothers who gave birth in Government HCFs in the State were provided transport to their residences by Government/outsourced vehicle under *Janani Shishu Suraksha Karyakram*.

There was in-ordinate delay of 21 years in framing Rules under the Tamil Nadu Clinical Establishments (Regulation) Act, 1997, leading to slackness in monitoring the working of private medical institutions. Government healthcare facilities were not proactive in getting certified under National Accreditation Board for Hospitals and Healthcare Providers and National Quality Assurance Standards, leading to non-institution of systems for ensuring the quality of service.

GoTN did not monitor all the targets under SDG-3.

What we recommend?

We have made 14 recommendations covering the need to increase the outlay for health, enlarging primary care network in urban areas, maintenance of medical equipment, periodical recruitment of manpower with clear forecast of vacancies, strengthening enforcement of clinical establishments Act, monitoring SDG target achievement using the indicators developed by NITI Aayog, etc.

HUMAN RESOURCES

- ✓ Government should ensure that adequate manpower is available for continued effective implementation of the Family Welfare programmes.
- ✓ Government should ensure that the Directorates periodically compile the manpower requirement at different levels and pursue with the Medical Recruitment Board to recruit staff as per Annual Recruitment Calendar.

HEALTHCARE SERVICES

- ✓ Government should study the feasibility and implement a fully automated monitoring system for ambulance service by linking the vehicle position using Global Positioning System.
- ✓ Government should put in place a mechanism for clinical audit of the circumstances leading to the high proportion of LSCS deliveries in the HCFs.

AVAILABILITY OF DRUGS, MEDICINE, EQUIPMENT AND OTHER CONSUMABLES

- ✓ Government should direct TNMSC to ensure that drugs that fail the quality tests are not issued to HCFs/should be retrieved back from the HCFs. Further, the Suppliers of such drugs should be blacklisted as per the existing provisions.
- ✓ Government should ensure that TNMSC takes ownership of maintenance activity of all medical equipment supplied to all healthcare facilities and update the inventory based on annual physical verification.
- ✓ Government should ensure that medical equipment like X-ray machines, Electrocardiogram/Ultrasonography machines etc., are procured only after ascertaining the availability of infrastructure to house the equipment and technicians to operate/service them when under repair.

FINANCIAL MANAGEMENT

- ✓ Government should ensure that the outlay for healthcare is increased to eight *per cent* of the budget as envisaged in the National Health Policy to bridge the gaps in infrastructure and manpower needs of all three levels of public health institutions, particularly with a focus on the gaps in Urban Primary healthcare services. The Department should strive to utilise the budget allotments in full.
- ✓ Government should ensure that releasing funds to TNMSC and TAMPCOL are linked to the actual requirement of drugs and other supplies and direct these agencies to refund the unspent balances immediately.
- ✓ Government should ensure that the fund and manpower allocation are based on the gaps identified through the annual facility survey, as specified with National Health Mission.

IMPLEMENTATION OF CENTRALLY SPONSORED SCHEMES

- ✓ Government should ensure that the National Centre for Ageing, constructed with GoI assistance, is commissioned without any further delay by sanctioning required manpower and equipment.
- ✓ Government should ensure that adequate awareness is created to ensure scheme benefits to all the eligible women under '*Janani Suraksha Yojana*' and '*Janani Shishu Suraksha Karyakram*'.

ADEQUACY AND EFFECTIVENESS OF REGULATORY MECHANISMS

- ✓ Government should ensure that all clinical establishments (both public and private) in the State are registered under the Tamil Nadu Clinical Establishments (Regulation) Act, 1997 and Directorate of Medical and Rural Health Services may deploy adequate manpower to effectively enforce this Act.

SUSTAINABLE DEVELOPMENT GOAL - 3

- ✓ Government should ensure that all indicators devised by NITI Aayog are employed to monitor performance under SDG-3.

Government's response to Audit recommendations

Government while responding to the Audit observations raised, assured necessary corrective action wherever required. Audit acknowledges and appreciates the corrective action taken/proposed by Government to address issues pointed out in this Report.

CHAPTER I
INTRODUCTION AND AUDIT FRAMEWORK

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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 polices 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.

Line services

i. Outpatient department
ii. Inpatient department
iii. Emergency services
iv. Super specialty (OT, ICU)
v. Maternity
vi. Blood bank
vii. Diagnostic services

Support services

i. Oxygen services
ii. Dietary service
iii. Laundry service
iv. Biomedical waste management
v. Ambulance service
vi. Mortuary service

Auxiliary services

i. Patient safety facilities
ii. Patient registration
iii. Grievance/complaint redressal
iv. Stores

Resource Management

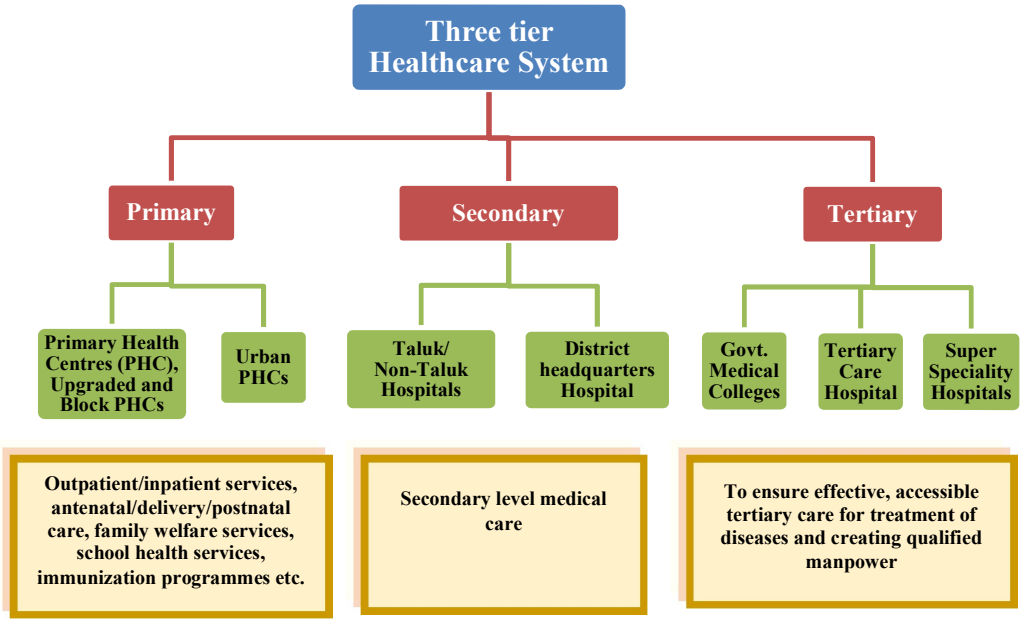
i. Building infrastructure
ii. Human resource
iii. Drugs and consumables
iv. Equipment

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**.

Abbreviations used in this report are listed in the Glossary at Page 194.

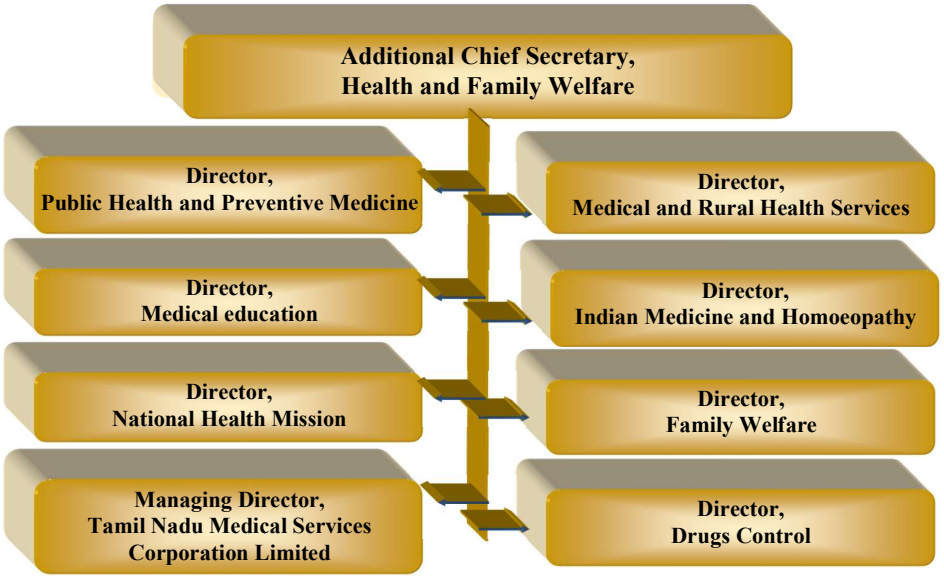
Exhibit 1.1: Schematic diagram of Public Health System in the State



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

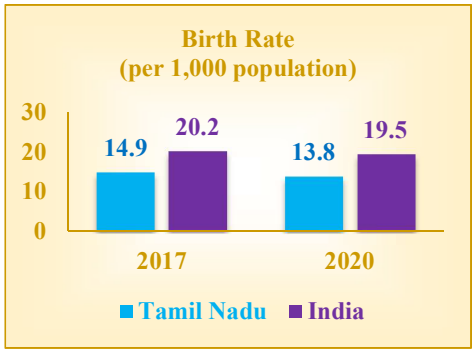


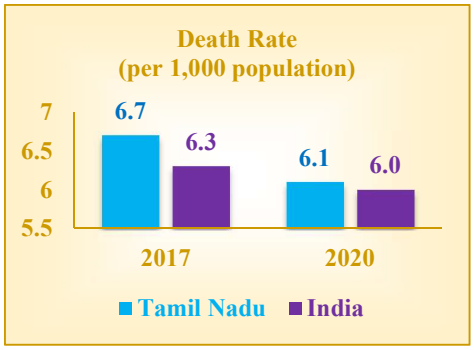
Procurement, testing, storage and distribution of drugs and medicines, consumables, medical equipment, etc., are carried out by the Tamil Nadu Medical Services Corporation Limited (TNMSC), headed by a Managing Director.

1.5 Status of Health Indicators in the State

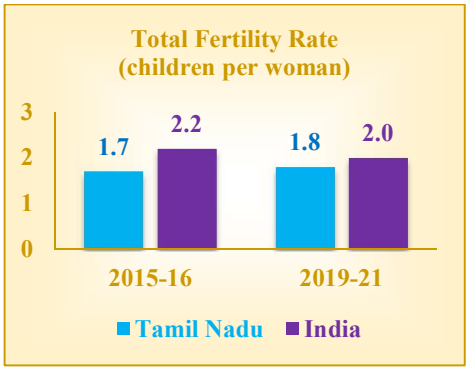
The World Health Organisation (WHO) defines Health as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'. As health cannot be measured in exact measurable forms, Health indicators are helpful to provide a crude picture about the health scenario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

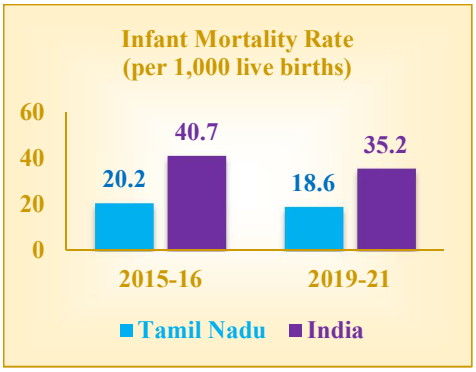
Exhibit 1.3: Health Indicators in the State



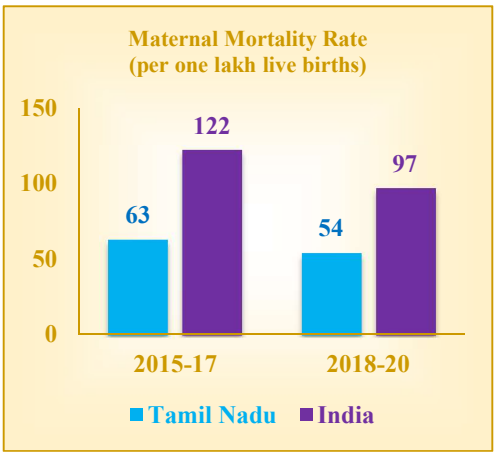


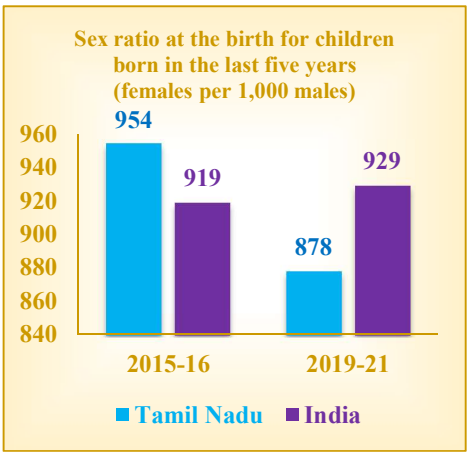
(Source: NITI Aayog and Economic Survey 2022-23)





(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 (*per cent*)	*64*	*58.6*	*77.4*	*70*
Mothers who had at least four antenatal care visits (*per cent*)	*81.1*	*51.2*	*89.9*	*58.1*
Mothers whose last birth was protected against neonatal tetanus[1] (*per cent*)	*71*	*89*	*89.7*	*92*
Mothers who consumed iron folic acid for 100 days or more when they were pregnant (*per cent*)	*64*	*30.3*	*82.5*	*44.1*
Mothers who consumed iron folic acid for 180 days or more when they were pregnant (*per cent*)	*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 (*per cent*)	*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 (*per cent*)	*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 (*per cent*)	*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 (*per cent*)	*35.4*	*24.3*	94.9	*79.1*
Institutional births (*per cent*)	*98.9*	*78.9*	*99.6*	*88.6*
Institutional births in public facility (*per cent*)	*66.7*	*52.1*	*66.9*	*61.9*
Home births that were conducted by skilled health personnel[2] (*per cent*)	*0.6*	*4.3*	*0.2*	*3.2*
Births attended by skilled health personnel (*per cent*)	*99.2*	*81.4*	*99.8*	*89.4*
Births delivered by caesarean section (*per cent*)	*34.1*	*17.2*	*44.9*	*21.5*
Births in a private health facility that were delivered by caesarean section (*per cent*)	*51.3*	*40.9*	*63.8*	*47.4*
Births in a public health facility that were delivered by caesarean section (*per cent*)	*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
- ✓ The National Medical Commission Act, 2019
- ✓ Indian Public Health Standards, 2012
- ✓ IMCAA (Professional Conduct, Etiquette and Ethics) Regulations, 2002
- ✓ The Clinical Establishments (Registration and Regulation) Act, 2010
- ✓ The Tamil Nadu Clinical Establishment (Regulations) Act, 1997 and Rules
- ✓ Drugs and Cosmetics Act, 1940
- ✓ The National Commission for Homoeopathy Act, 2020
- ✓ Biomedical Waste Management Rules, 2016
- ✓ Atomic Energy (Radiation Protection) Rules, 2004
- ✓ Minimum Standards Requirement Regulations, 1999
- ✓ World Health Organisation norms on bed/population ratio
- ✓ United Nations' Sustainable Development Goals (SDG)
- ✓ National Accreditation Board for Hospitals, Blood Banks and healthcare providers, Testing and Calibration Laboratories
- ✓ GoI/GoTN orders, circulars, etc.

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 offices[3] 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,

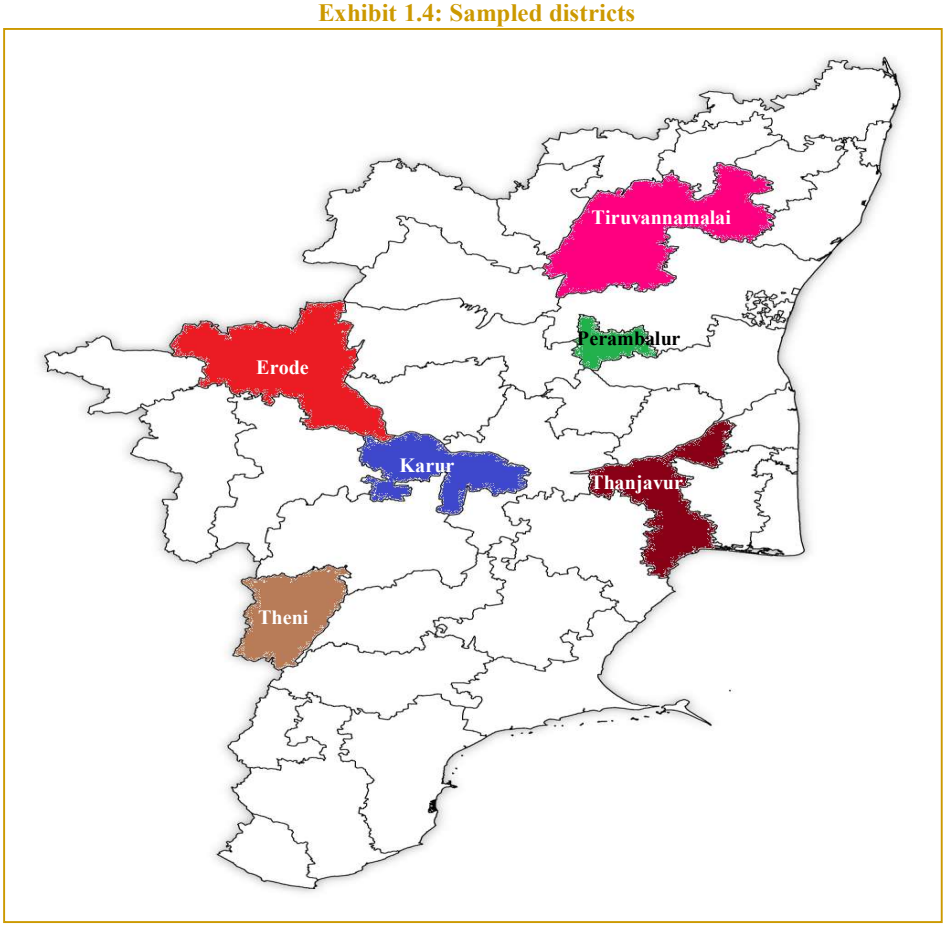
[3] Joint Director of Health Services (JDHS); Deputy Director of Health Services (DDHS); District Siddha Medical Officer; District Warehouses of TNMSC; Regional Offices of Drug Control Administration.

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

CHAPTER II
HUMAN RESOURCES

CHAPTER II

HUMAN RESOURCES

The health workforce includes clinical staff such as physicians and nurses and paramedical staff such as pharmacists, lab technicians, X-ray technicians, etc., and other management and support staff, such as ministerial staff, ambulance drivers, sanitary workers, cook, etc.

Sanctioned strength of medical and paramedical staff in secondary care institutions was inadequate with respect to the norm-based requirement. Vacancies of doctors and nurses at primary care institutions was high in comparison with the vacancies in secondary and tertiary care institutions, evidently due to the willingness for postings in urban centres.

2.1 Human resource availability against sanctioned strength

In Tamil Nadu, various Directorates, Boards and Corporations with varied responsibilities, function under the administrative control of the HFW Department. The manpower position across the different Directorates, as of March 2022, is shown in **Table 2.1**.

Table 2.1: Manpower position across different Directorates under HFW Department

Sl. No.	Name of the Directorate	Sanctioned Strength	Share in Total Work force	Working strength	Vacancy position	
					Number	Percentage
1	Directorate of Medical Education	30,767	29.71	25,112	5,655	*18*
2	Directorate of Medical and Rural Health Services	19,243	18.58	12,932	6,311	*33*
3	Directorate of Public Health and Preventive Medicine	45,071	43.52	30,850	14,221	*32*
4	Directorate of Family Welfare	586	0.57	390	196	*33*
5	Directorate of Indian Medicine and Homoeopathy	6,228	6.01	4,186	2,042	*33*
6	Drugs Control Department	488	0.47	334	154	*32*
7	Tamil Nadu Food Safety and Drugs Administration	481	0.46	277	204	*42*
8	Tamil Nadu Health Systems Project	31	0.03	29	2	*6*
9	Tamil Nadu State Health Transport Department	669	0.65	427	242	*36*
	Total	**1,03,564**	**100**	**74,537**	**29,027**	***28***

(Source: Details furnished by the respective Directorates/Departments)

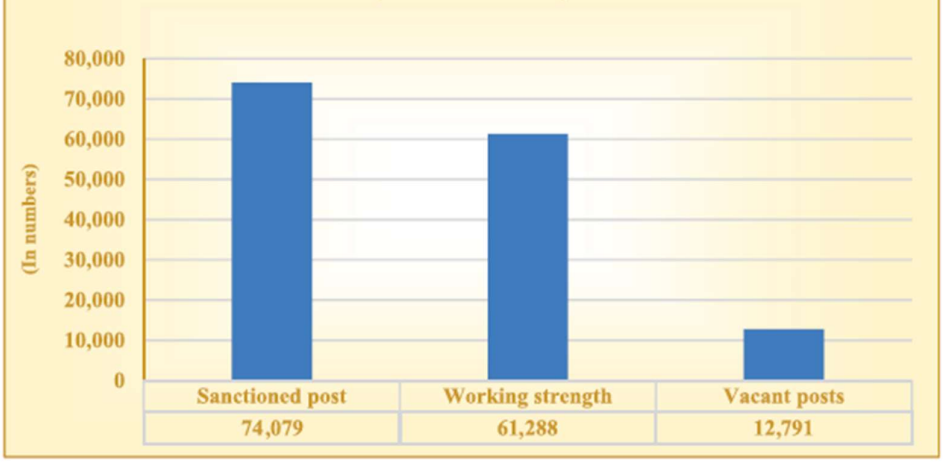
As seen from **Table 2.1**, the overall percentage of vacancies across all Directorates/Departments under HFW Department is 28 *per cent*, the range varying from six *per cent* in TNHSP to 42 *per cent* in Tamil Nadu Food Safety and Drugs Administration.

2.2 Shortage of manpower

IPHS prescribes the norms for manpower requirement in primary and secondary healthcare institutions. GoTN, however, did not adopt the IPHS norms for sanction of posts for these institutions. Government followed the Medical Council of India (MCI) norms for tertiary care institutions.

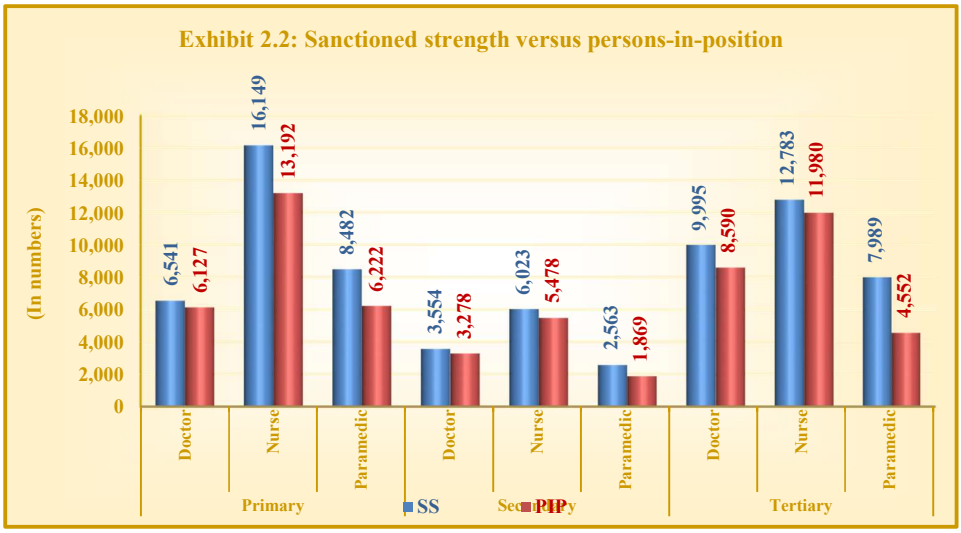
The overall manpower position in Government HCFs in the State, as of March 2022, is given in **Exhibit 2.1** and the details of sanctioned strength and person-in-position (PIP) of doctors, nurses and paramedics in primary, secondary and tertiary care Healthcare Facilities (HCFs) are given in **Exhibit 2.2**.

Exhibit 2.1: Overall manpower position (as of March 2022)



(Source: Details furnished by the respective Directorates)

Exhibit 2.2: Sanctioned strength versus persons-in-position



(Source: Details furnished by the respective Directorates)

As of March 2022, the percentage of sanctioned posts of Doctors[1], Nurses and Paramedical staff, lying vacant in primary, secondary and tertiary HCFs, is given in **Table 2.2.**

Table 2.2: Vacancy position during 2017-22 (in percentage of sanctioned strength)

HCF	Category	Vacancy position (In percentage of sanctioned strength)					
		2017	2018	2019	2020	2021	2022
Primary care	Doctors	*15*	*17*	*25*	*17*	*19*	*6*
	Nurses	*23*	*25*	*14*	*24*	*23*	*18*
	Paramedics	*41*	*43*	*43*	*46*	*45*	*27*
Secondary care	Doctors	*21*	*26*	*19*	*20*	*6*	*8*
	Nurses	*7*	*7*	*8*	*8*	*6*	*9*
	Paramedics	*29*	*29*	*23*	*26*	*27*	*27*
Tertiary care	Doctors	*18*	*17*	*14*	*20*	*13*	*14*
	Nurses	*5*	*7*	*5*	*6*	*5*	*6*
	Paramedics	*51*	*48*	*45*	*44*	*41*	*43*

High (> 25 *per cent*) **Moderate (10 to 25 *per cent*)** **Fair (<10 *per cent*)**

(Source: Details furnished by DPH, DMRHS and DME's Performance Reports)

- As of March 2022, the vacancy percentage of Doctors, Nurses and Paramedical Staff in all GMCHs of the State was 22, 6 and 44 *per cent* respectively, the details of which is given in **Appendix 2.1**.
- The vacancy percentage of specialist doctors in all the DHQHs in the state was only four *per cent*. The sanctioned strength and persons-in-position of specialist doctors, in all the DHQHs in the State, is given in **Appendix 2.2**.
- In the sampled Block PHCs, there was an overall shortage of 53 *per cent* in the sanctioned strength with reference to IPHS norms. Against the sanctioned strength, the vacancy percentage of Doctors, Nurses and Paramedical Staff was 8, 12 and 17 *per cent* respectively, the details of which is given in **Appendix 2.3**.
- In the sampled PHCs, there was an overall shortage of 45 *per cent* in the sanctioned strength with reference to IPHS norms. Against the sanctioned strength, the vacancy percentage of Doctors, Nurses and Paramedical Staff was 13, 14 and 13 p*er cent* respectively, the details of which is given in **Appendix 2.4**.

2.3 Inadequate sanction of posts

2.3.1 Shortfall of manpower in sampled secondary care hospitals

IPHS guidelines prescribe the minimum essential manpower required for a functional DHQH/TKH/NTKH of different bed strengths. Further, efforts shall be made by the States to provide all desirable services including super-specialty

[1] The SS/PIP of Doctors include both Medical Officers and Specialists.

services as listed, as and when the required manpower is available in the concerned District/State.

The details of the sanctioned strength in the sampled secondary care hospitals as of March 2022, with reference to the prescribed essential manpower requirement of doctors/nurses/paramedical staff as per IPHS norms, is given in **Appendix 2.5**. Further, the details of vacancy position in these HCFs when compared to the sanctioned strength are also given in **Appendix 2.5**.

- In the sampled 16 secondary care hospitals, the overall shortage of sanctioned strength of doctors, nurses and paramedical staff, with reference to IPHS norms, was 18, 53 and 21 *per cent* respectively.
- In the five sampled DHQHs, only two[2] DHQHs had shortage of sanctioned strength of doctors. The overall shortage in sanctioned strength of nurses was 45 *per cent*, the shortage ranging from 10 *per cent* (Cheyyar) to 64 *per cent* (Kumbakonam).
- In the six sampled TKHs, the overall shortage of sanctioned strength of doctors, nurses and paramedical staff was 66, 80 and 81 *per cent* respectively.
- In the five sampled NTKHs, the overall shortage of sanctioned strength of doctors, nurses and paramedical staff was 58, 58 and 57 *per cent* respectively.
- The overall vacancy percentage in the 16 sampled secondary care hospitals, as compared to the sanctioned strength, was 11, 5 and 53 *per cent* respectively.

Audit observed that the large number of vacancies resulted in referral of patients to other hospitals, but details of referral of patients were not maintained by the hospitals either by using Health Management Information System (HMIS) or through manual records.

2.3.2 Shortage of nurses in ICU

As per the norms of the Indian Nursing Council, one nurse is required for each bed in ICU. The shortage of nurses in sampled DHQHs is shown in **Table 2.3**.

Table 2.3: Availability of nurses in ICU at the sampled DHQHs

Name of the DHQH	Number of beds available in ICU	Staff nurses		Shortfall	
		Required as per IPHS	Available	No.	Percent-age
Cheyyar	8	8	1	7	***88***
Erode	15	15	6	9	***60***
Kumbakonam	50	50	6	44	***88***

High (> 25 *per cent*) **Moderate (10 to 25 *per cent*)** **Fair (<10 *per cent*)**

(Source: Details furnished by the respective sampled DHQH)

[2] Kumbakonam (34 *per cent*) and Periyakulam (20 *per cent*).

Audit observed that in three DHQHs, the above norms were not met as the shortfall in nurses for ICU ranges from 60 *per cent* to 88 *per cent*. This resulted inpatients not getting proper attention in times of emergency and the HCFs were constrained to refer the cases to tertiary care hospitals.

2.4 Manpower shortages in tertiary care hospitals

In the sampled tertiary care hospitals *viz*., Medical College Hospitals (MCHs) the shortfall of doctors, nurses and paramedics with reference to sanctioned strength are given in **Table 2.4**.

Table 2.4: Shortfall of manpower against sanctioned strength in sampled MCHs

Name of the hospital	Shortfall as per sanctioned strength (In *per cent*)		
	Doctors	Nurses	Paramedics
MCH, Erode	*13*	*0*	*62*
MCH, Karur	*33*	*25*	*62*
MCH, Thanjavur	*29*	*4*	*44*
MCH, Theni	*42*	*4*	*55*
MCH, Tiruvannamalai	*43*	*9*	*54*

High (> 25 *per cent*) **Moderate (10 to 25 *per cent*)** **Fair (<10 *per cent*)**

(Source: Details furnished by the sampled MCHs)

It was seen that the overall vacancy of doctors at tertiary care level in the State was only 14 *per cent.* It was, however, seen that the vacancies of doctors in the sampled hospitals were as high as 43 *per cent*, which showed posting of doctors at smaller towns like Theni and Tiruvannamalai were not enforced.

As a result, large number of vacancies in tertiary care hospitals, located in third tier cities and towns were noticed and several services were not being provided. For example, 23 MCHs had less than 12 specialty surgical departments and 11 had less than eight specialty surgical departments when compared to 18 specialty surgical departments available at Rajiv Gandhi Government Hospital, Chennai. The details of OPD services provided by the sampled GMCHs, DHQHs, TKHs/NTKHs, Block PHCs and PHCs are given in **Paragraphs 3.1.2 to 3.1.6**.

Thus, many of the tertiary care hospitals did not provide a variety of services to patients, despite being at the top of the healthcare pyramid.

2.5 Vacancies of paramedical staff

Paramedical staffs also provide critical services, and they ensure smooth functioning of the hospitals. As could be seen from **Tables 2.1** to **2.3**, the highest numbers of vacancies were noticed among paramedics.

It was seen that the Head of Departments (HoDs) did not initiate expeditious action for recruitment of paramedics through Medical Recruitment Board (MRB). A list of major paramedical posts, sanctioned strength, PIP, vacancies, and number of recruitments during 2016-22 is given in **Table 2.5**.

Table 2.5: Vacancy position of major paramedical staff posts

Sl. No.	Paramedical post	Sanctioned strength	PIP	Vacancy	Percentage of vacancy against sanctioned strength	MRB recruitment (2016-22) in numbers
		(As on March 2022)				
1	Dark Room Assistant	364	109	255	***70***	227
2	Dental Technician, Mechanic, Hygienist	216	72	144	***67***	1
3	Dietician	9	6	3	***69***	33
4	ECG/EEG/EMG Technician	213	94	119	***56***	8
5	Lab Technician	4,303	3,403	900	***21***	2,745
6	Pharmacist	3,640	2,524	1,116	***31***	323
7	Radiographer	1,109	785	324	***29***	93
8	Theatre Assistant	733	128	605	***83***	0
9	X-ray Technician/Attendant	172	17	155	***90***	0
Total		**10,759**	**7,138**	**3,621**	***34***	**3,397**

High (> 25 *per cent*) **Moderate (10 to 25 *per cent*)** **Fair (<10 *per cent*)**

(Source: Data furnished by HoDs and MRB)

As could be seen from **Table 2.5**, except for the posts of Lab Technicians, Pharmacists and Dark Room Assistant, the number of new recruitments during 2016-22 was insignificant with reference to the vacancies. Recruitments were not made during 2016-22 for X-ray Technicians and Theatre Assistants even though the vacancies were 90 and 83 *per cent* respectively, as of March 2022.

As commented in **Paragraph 4.8.1,** X-ray equipment were kept unutilised due to non-filling of vacancies of X-ray technicians.

Thus, the large number of vacancies of paramedics impacted service delivery to the needy patients which resulted in underutilisation/misuse of hospital equipment.

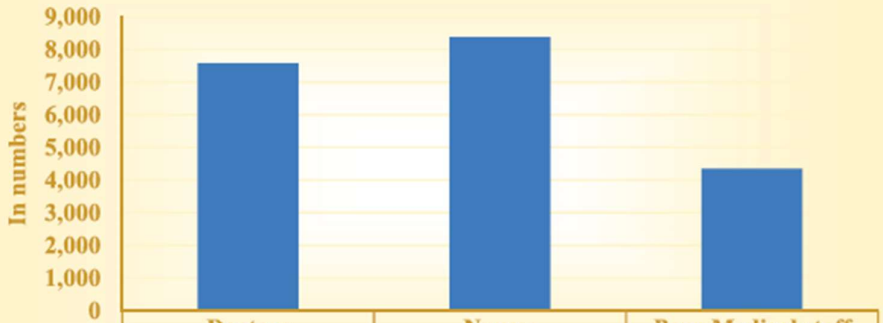
GoTN replied (August 2022) that action was being taken to recruit Pharmacists, Nurses, Dieticians and Theatre Assistants. Audit found that regular recruitment was not being done even as the vacancies were increasing. No recruitment was made for X-ray technicians and Theatre Assistant posts during the last five years.

2.6 Recruitment of manpower

GoTN constituted (January 2012) the Medical Services Recruitment Board (MRB) with the objective of making appointments to various categories of staff in the HFW Department by way of direct recruitment. During 2016-22, MRB recruited 20,301 candidates for various posts[3]. The total candidates recruited, as Doctors, Nurses and Paramedical staff is given in **Exhibit 2.3.**

[3] Besides permanent staff, a total of 17,651 candidates were appointed temporarily for COVID during 2019-21.

Exhibit 2.3: Recruitments by MRB during 2016-22



(Source: Details furnished by MRB and Policy Note 2022-23)

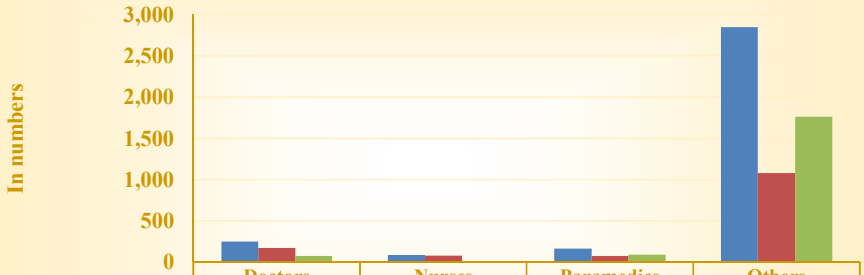
Considering the vacancies of 2,095 doctors, 4,305 nurses and 6,391 paramedical staff as of March 2022, the average annual recruitment during 2016-22 was less than the prevailing vacancies of doctors and only 32 *per cent* and 11 *per cent* of the total recruitment of 8,374 and 4,356 nurses and paramedical staff respectively were recruited.

Thus, Audit observed that the recruitment of medical manpower lagged despite constituting a separate Board for recruitment of medical manpower.

2.7 Human resource under the Directorate of Family Welfare

The National Family Planning Programme is being implemented in the State since 1956 with GoI's assistance. The objective of the programme is to maintain the Total Fertility Rate (TFR) to the extent necessary to stabilise the population at a consistent level. The Directorate of Family Welfare - implements family planning related initiatives. The manpower position under the Directorate is given in **Exhibit 2.4** and the details of shortage of manpower in certain specific posts is given in **Table 2.6**.

Exhibit 2.4: Manpower position under Directorate of Family Welfare



	Doctors	Nurses	Paramedics	Others
Sanctioned posts	249	85	166	2849
Working strength	173	79	73	1081
Vacant posts	76	6	93	1763

Note: Posts under 'Others' category consists of administrative and ministerial posts.

(Source: Data furnished by Directorate of Family Welfare)

Table 2.6: Shortage of Manpower in certain specific posts under the Directorate of Family Welfare

Sl. No.	Post Name	Sanctioned Posts	Working Strength	Vacant Posts	Vacant posts (In *per cent*)
1	Auxiliary Nurse Midwife	184	127	57	***31***
2	Block Extension Educator	382	3	379	***99***
3	Block Health Statistician	403	206	197	***49***
4	Cinema Operator	37	2	35	***95***
5	Family Welfare Assistant	163	0	163	***100***
6	Family Welfare Extension Educator	28	0	28	***100***
7	Lady Health Visitor	104	26	78	***75***
8	Lecturer in Health Education	7	0	7	***100***
9	Lecturer in Statistics and Demography	8	0	8	***100***
10	Mass Education and Information Officer	22	4	18	***82***
11	Maternity Child Health Officer	15	0	15	***100***
12	Storekeeper	374	10	364	***97***

High (> 25 *per cent*) **Moderate (10 to 25 *per cent*)** **Fair (<10 *per cent*)**

(Source: Data furnished by Directorate of Family Welfare)

It is pertinent to mention that although the TFR of the State has fallen below the population replacement level of 2.1 children per women, considering the number of tubectomy, IUD insertions carried out by Government HCFs, the need for maintaining an optimum strength of personnel for the family planning programme is essential for effective implementation of various Family Welfare programmes.

Recommendation 1:

Government should ensure that adequate manpower is available for continued effective implementation of Family Welfare programmes.

2.8 Human resource under AYUSH

The Directorate of Indian Medicine and Homoeopathy is responsible for providing AYUSH[4] medical education and its services. As of March 2023, against a sanctioned strength of 2,088 doctors in the State, there was a vacancy of 331 (16 *per cent*). The overall vacancy position of all cadres under the Directorate of Indian Medicine and Homoeopathy was 32 *per cent*, the details of which are given in **Table 2.7**.

[4] Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy.

Table 2.7: Staff details[5] of Directorate of Indian Medicine and Homoeopathy as of March 2023

Sl. No.	Post	Sanctioned	In position	Vacancy	
				No.	Percent-age
1	Director (IAS)	1	1	0	*0*
2	Medical personnel	2,136	1,771	365	***17***
3	Nursing personnel	117	110	7	***6***
4	Pharmacist/Pharmacy Supervisor/Dispenser	1,334	1,108	226	***17***
5	Therapeutic Assistant	139	4	135	***97***
6	Nursing Assistant/Hospital Worker	1,135	476	659	***58***
7	Multipurpose Worker	475	230	245	***52***
8	Attender	36	22	14	***39***
9	Driver (Mobile Tribal Unit)	2	0	2	***100***
10	Ministerial Staff	279	191	88	***32***
11	Others	574	318	256	***45***
	Total	**6,228**	**4,231**	**1,997**	***32***

High (> 25 *per cent*) **Moderate (10 to 25 *per cent*)** **Fair (<10 *per cent*)**

(Source: Directorate of Indian Medicine and Homoeopathy)

Audit observed that the large number of vacancies in the HCFs under the Directorate of Indian Medicine and Homoeopathy would not augur well for popularising alternative medicines, which is a policy of Government.

Recommendation 2:

Government should ensure that the Directorates periodically compile the manpower requirement at different levels and pursue with the Medical Recruitment Board to recruit staff as per Annual Recruitment Calendar.

2.9 Manpower for Ambulance Services

In 2008, a free Emergency Ambulance Service - '108 Emergency Services' - was launched. As of March 2022, 1,353 ambulances were deployed in all 38 districts across the State. Each ambulance has a Pilot (Driver) and one fully trained Emergency Medical Technician (EMT) who provides the pre-hospital care to victim. A total of 2,975 Pilots and 2,858 EMTs are deployed in all the districts for smooth operation of these ambulances which provide Basic and

[5] Including Regular staff, Consolidated/Part time/Outsourced staff; National Rural Health Mission; AYUSH Wellness Clinics under National AYUSH Mission; and Mobile Tribal Units (Siddha).

Advanced Life Support. The district-wise distribution of ambulances, EMTs and Pilots are given in **Appendix 2.6**.

The audit findings on the '108 Emergency Services' are discussed in **Paragraph 3.3.5**.

2.10 Availability of Accredited Social Health Activists (ASHAs)

One of the key components of the National Rural Health Mission (NRHM) is to provide every village in the country with a trained female community health activist, i.e., an 'Accredited Social Health Activist' (ASHA). Selected from the village itself and accountable to it, the ASHA will be trained to work as an interface between the community and the public health system.

The general norm for selection of ASHA is One ASHA per 1,000 rural population[6]. According to 2011 census, the rural population in Tamil Nadu was 3.72 crore for which 37,200 ASHA workers are required. However, in Tamil Nadu the sanctioned post itself was only 2,650 which is highly inadequate to cater the rural population. As of March 2022, a total of 2,615 ASHAs are placed in 30 districts in the State against a sanctioned strength of 2,650 ASHAs, the district-wise details of which are given in **Appendix 2.7**.

Audit observed that out of 38 districts in the State, only 30 districts are having sanctioned strength of ASHAs.

[6] In tribal, hilly, desert areas the norm could be relaxed to one ASHA per habitation, dependant on workload etc.

CHAPTER III
HEALTHCARE SERVICES

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HEALTHCARE SERVICES

A significant number of Healthcare Facilities (HCFs) lacked even the basic facilities such as patient waiting space, registration counters, drinking water, toilets, compound wall, etc. Deficiencies in support services like laundry, kitchen, mortuary, etc., impacted the quality of services provided by Government HCFs. Significant shortfalls were seen in the availability of Intensive Care Units (ICUs) and Operation Theatres (OTs) in District Headquarter hospitals, where the shortage ranged from 20 *per cent* to 65 *per cent* in respect of ICUs and 20 *per cent* to 83 *per cent* in respect of OTs with reference to IPHS norms. Hospitals failed to monitor the performance of doctors using HMIS, which assumed greater importance as doctors are allowed private practice and juggle between their private clinics and Government HCFs. The proportion of Lower Segment Caesarean Section (LSCS) to total deliveries in Government HCFs during 2019-21 stood high at 36 *per cent* of total deliveries against all India average of only 14 *per cent.*

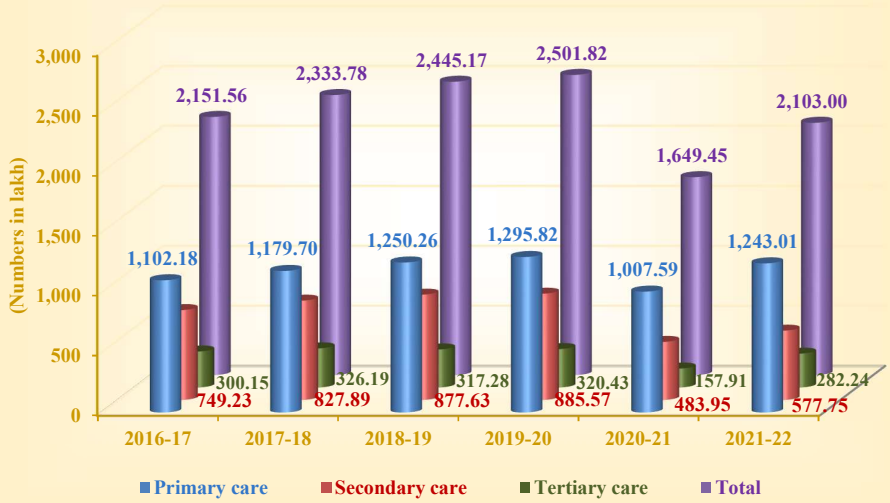
Tamil Nadu Accident and Emergency Initiative and the '108 Ambulance' services play a crucial role in emergency services. The ambulance services continue to improve its performance in terms of response time, but several other performance indicators were not monitored. COVID-19 came as a shock to the healthcare sector of the State in 2020. A favourable bed-population ratio and the ability to quickly ramp up testing and vaccination services, helped the State to tide over the impact of COVID-19, albeit with 38,000 deaths. Emergency procurement for COVID-19 lacked transparency. Administrative issues caused abnormal delays in paying the compensation due to the families of health workers who succumbed to COVID-19. Out of the 3,757 Oxygen Concentrators supplied by Government of India, 147 were not installed even as of March 2022. The Pressure Swing Adsorption oxygen generator plants were not being optimally used for its intended purpose.

3.1 Outpatient Department Services

3.1.1 Outpatients treated in Government HCFs

The number of outpatients (OPs) treated in primary, secondary and tertiary Government HCFs during the period 2016-22 are shown in **Exhibit 3.1**.

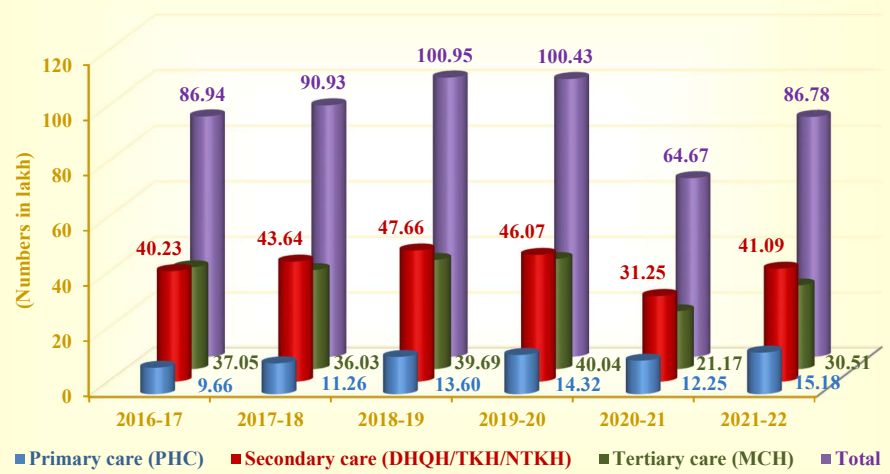
Exhibit 3.1 : Number of Outpatients in hospitals/PHC in the State



(Source: Data furnished by the respective Directorates)

Similarly, the number of outpatients attended in the sampled primary, secondary and tertiary hospitals/PHCs is shown in **Exhibit 3.2**.

Exhibit 3.2: Outpatients in sampled HCFs



(Source: Data furnished by sampled hospitals/PHCs)

- The percentage of increase of OP cases with respect to the previous year at the State level fell from eight *per cent in* 2017-18 to five *per cent* in 2018-19 and 2.3 *per cent* in 2019-20. The percentage of OP cases in tertiary sector continued to be subdued during 2016-20 and fell sharply during 2020-21.
- During 2020-21, OP numbers declined due to the COVID-19 pandemic. However, reduction in tertiary care OPs during 2017-18 and secondary care OPs during 2019-20 was also noticed.

3.1.2 Availability of Outpatient Departments in sampled Medical College Hospitals

The Government Medical Colleges, Teaching Institutions and the Hospitals attached to them are managed by the Directorate of Medical Education. The Government Medical College Hospitals (GMCH) ensure effective and accessible tertiary care for treatment of diseases and provision for health services. The details of OPD specialty services in the sampled GMCHs, as of January 2024, is given in **Appendix 3.1**.

Out of 45 speciality OPD services available in the sampled GMCHs, their availability ranged from 13 (Erode) to 34 (Thanjavur).

3.1.3 Availability of OPD services in District Headquarters hospitals in the State

The Secondary care hospitals provide a critical link between the primary and tertiary care facilities. The details of specialist OP services provided in the sampled DHQHs and non-sampled DHQHs, as of January 2024, are given in **Appendices 3.2** and **3.3** respectively.

Out of 20 speciality OPD services available in the sampled DHQHs, their availability ranged between 10 (Perambalur) and 14 (Kumbakonam).

3.1.4 Availability of OPD services in the sampled Taluk and Non-Taluk Hospitals

The Sub-district (Sub-divisional) hospitals[1] are below the district and above the block level hospitals and act as First Referral Units for the Tehsil/Taluk/block population in which they are geographically located. They are the First Referral Units in providing emergency obstetrics care and neonatal care and help in bringing down the Maternal Mortality and Infant Mortality. They form an important link between Sub-centres, PHC and CHC on one end and District Hospitals on the other end. It also saves the travel time for the cases needing emergency care and reduces the workload of the district hospital. The availability of OPD services in the sampled TKHs and NTKHs are given in **Appendix 3.4**.

Among the 15 speciality OPD services, their availability varied within the sampled TKHs, ranging from two (Karai) to 12 (Bhavani). In sampled NTKHs, the range was from four (Thirukkattupalli) to eight (Velayuthapalayam).

- The Obstetrics and Gynaecology OPD was not available in four[2] HCFs.
- The OPD for General surgery and Orthopaedics was being conducted only once a month in NTKH, Velayuthapalayam.

[1] In Tamil Nadu, these hospitals are known as Taluk and Non-Taluk Hospitals.

[2] TKHs at (i) Karai and (ii) Orathanadu; NTKHs at (iii) Thanipadi and (iv) Thirukattupalli.

- The Psychiatric OPD was being conducted monthly once[3] and twice[4] at two NTKHs each while it was not available at NTKH, Kavindapadi.

During JPV (January 2024) at TKH, Andipatti, Audit observed the following:

- Although ENT specialist was posted, the ENT equipment was not available. The Chief Civil Surgeon of the hospital stated that the supply for instruments were being regularly requested for from the JDHS of the district.
- The Dental Chair and other equipment are available. But the post of Dentist is vacant from June 2021. The Chief Civil Surgeon of the hospital stated that the dental related patients are referred to other HCFs.

3.1.5 Availability of OPD services in the sampled Block PHCs

The Community Health Centres (CHCs) constitute the secondary level of healthcare. CHCs were designed to provide referral as well as specialist healthcare to the rural population. Unlike Sub-centre and PHCs, CHCs have been envisaged as only one type and will act both as Block level health administrative unit and gatekeeper for referrals to higher level of facilities. The availability of OPD services in the sampled Block PHCs is given in **Appendix 3.5**.

Essential services like Pharmacy, Emergency/Treatment Room[5], Laboratory and AYUSH were available in all 10 sampled Block PHCs. However, only four[6] Block PHCs had specialist OPD services.

3.1.6 Availability of OPD services in the sampled PHCs

A Primary Health Centre is the cornerstone of rural health services - a first port of call to a qualified doctor of the public sector in rural areas for the sick and those who directly report or referred from Sub-centres for curative, preventive and promotive healthcare. The availability of OPD services in the sampled PHCs[7] is given in **Appendix 3.6**.

Essential services like 24-hour Emergency services, Family Welfare services, Pharmacy, Emergency and Laboratory were available in all sampled PHCs. However, only two[8] PHCs had speciality OPD services.

3.1.7 Evaluation of outpatient services through outcome indicators

National Health Mission (NHM) Assessor's Guidebook for Quality Assurance envisaged the evaluation of services provided in an OP department through outcome indicators including the number of OP cases attended by a doctor and average consultation time taken by the doctor for diagnosing the outpatient.

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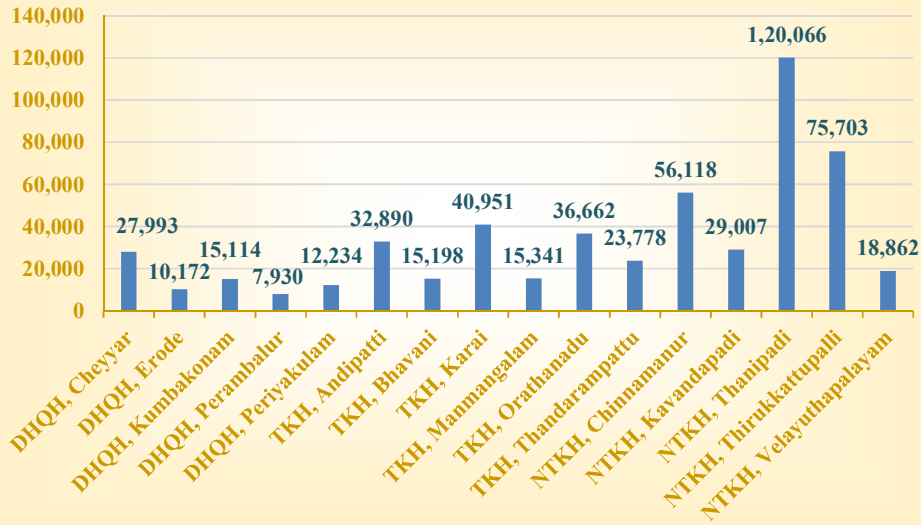
3 Thanipadi and Thirukkattupalli.
4 Chinnamanur and Velayuthapalayam.
5 Emergency room/casualty is not available in Chennimalai and Modakuruchi.
6 Chinnadharapuram, Modakuruchi, Karapattu and Vettavalam.
7 Includes Upgraded PHCs, Rural PHCs and Urban PHCs.
8 Kaikalathur and Santhavasal.

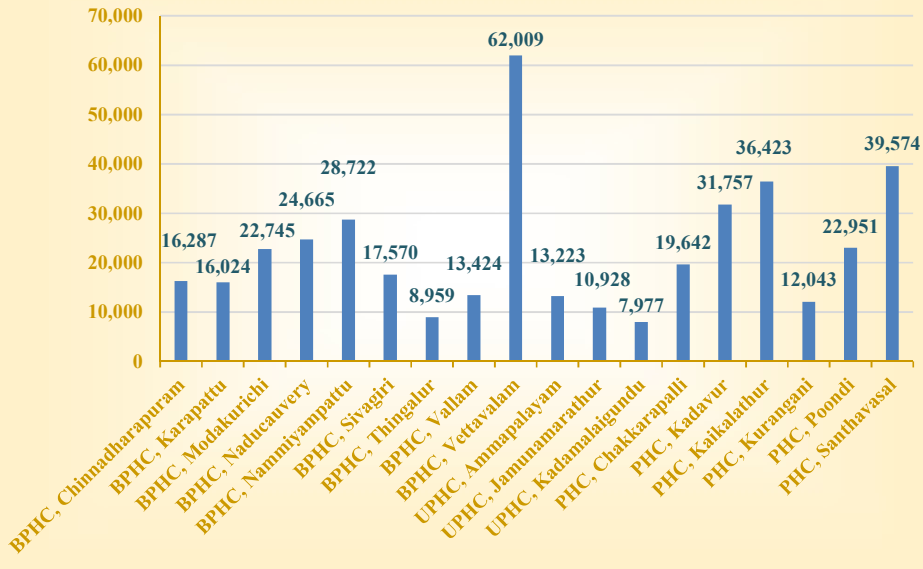
The total number of OPD cases, the average annual number of OPD cases and the average number of OPD cases per doctor per day during 2016-22 at the sampled HCFs[9] are given in **Appendix 3.7**. The average OPD cases per doctor per annum in the sampled secondary care hospitals and all types of PHCs during the period 2016-22 is given in **Exhibits 3.3, 3.4** and **3.5** respectively.

Exhibit 3.3: Average OPD cases per doctor per annum in the sampled Secondary care Hospitals during 2016-22



(Source: Details furnished by the respective Secondary Care Hospitals)

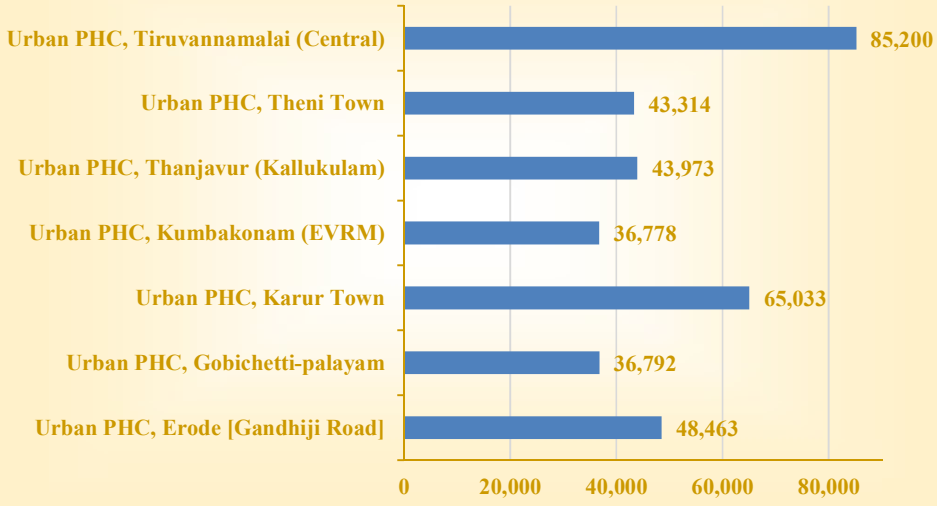
Exhibit 3.4: Average OPD cases per doctor per annum in the sampled Block PHCs, Upgraded PHCs and PHCs during 2016-22



(Source: Details furnished by the respective PHCs)

[9] Except MCHs.

Exhibit 3.5: Average OPD cases per doctor per annum in the sampled Urban PHCs during 2016-22



(Source: Details furnished by the respective Urban PHCs)

As seen from the **Exhibits 3.3** to **3.5** and **Appendix 3.7,** the average OPD cases per doctor per day in various types of sampled HCFs is as follows:

- In Secondary care hospitals, the range was from 22 in DHQH, Perambalur to 329 in NTKH, Thanipadi.
- In Block PHCs, the range was from 25 in Block PHC, Thingalur to 170 in Block PHC, Vettavalam.
- In PHCs, the range was from 22 in Urban PHC (UPHC), Kadaimalaigundu to 108 in PHC, Santhavasal.
- In Urban PHCs, the range was from 101 in Gobichettipalayam to 233 in Tiruvannamalai (Central).

3.1.8 Non-availability of basic facilities

(a) Registration counters

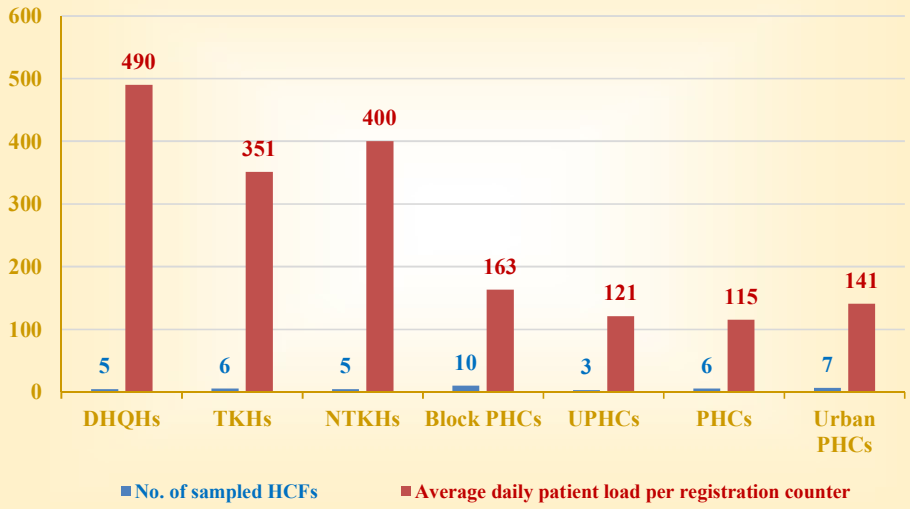
Availability of sufficient number of registration counters, in proportion to the OP load, aids in faster issue of OP tickets, thereby avoiding long queues of patients at these counters. Out of 42 sampled Secondary and Primary care HCFs, 26 HCFs had only one registration counter. In the remaining sampled HCFs, the number of registration counters ranged between two and four.

Survey finding: In DHQ hospital, Erode and Tiruvannamalai, 31 out of 131 beneficiaries (24 *per cent*) surveyed by audit expressed that the number of registration counters was grossly inadequate.

Out of 366 outpatients surveyed by Audit, 30 (8.2 *per cent*) expressed that it took 15 minutes to one hour for OP registration.

The average daily patient load per registration counter in various types of HCFs is given in **Exhibit 3.6** and the average daily patient load per registration counter for all sampled HCFs (except sampled MCHs) during the year 2021-22 is given in **Appendix 3.8**.

Exhibit 3.6: Average daily patient load per registration counter in various types of sampled HCFs during 2021-22



(Source: Details furnished by the respective HCFs)

As seen from **Exhibit 3.6**, the patient load per registration counter is more in the secondary care hospitals thereby necessitating opening of more counters to reduce the waiting time for the OPD patients. Thus, non-availability of adequate number of registration counters in proportion to the patient load had resulted in longer queues and longer waiting times.

GoTN accepted (August 2022) the audit findings and directed HCFs to increase the number of registration counters.

(b) Hospital building - Planning and layout

As per IPHS guidelines, the HCFs should have adequate signage indicating access to various facilities at strategic points in the Hospital for guidance of the public. The numbers and percentage of sampled 42 secondary and primary care HCFs where adequate signage was not available in their premises are given in **Table 3.1**.

Table 3.1: Non-availability of adequate signage in the sampled HCFs

Sl. No.	Availability of signage	Not available in sampled HCFs (except MCHs)						Total *(In per cent)*
		DHQH	TKH	NTKH	BPHC	UPHC and PHC	Urban PHC	
Sampled HCFs		5	6	5	10	9	7	42
1	Signage indicating access to various facilities at strategic points in the Hospital for guidance of the public	0	0	0	3	0	0	3 *(7)*
2	Citizen Charter at OPD and Entrance - in Tamil	0	1	1	1	1	0	4 *(10)*
3	Hospital Layout map at entrance	0	2	4	6	3	0	15 *(36)*
4	Directional signages for Emergency and all the Departments and Utilities	0	0	1	4	1	0	6 *(14)*
5	Florescent Fire Exit plan at each floor	1	1	4	4	3	1	15 *(33)*
6	Safety, Hazard and caution signs displayed prominently at relevant places	0	0	1	4	0	1	6 *(14)*
7	Display of important contacts like higher medical centres, blood banks, fire department, police and ambulance services available in nearby area.	0	0	1	3	1	0	5 *(12)*
8	Display of mandatory information (under RTI Act, PNDT Act, MTP Act etc.).	0	0	2	2	2	1	7 *(17)*

(Source: Details furnished by the sampled HCFs)

(c) Availability of basic amenities in Outpatient Department

As per IPHS Guidelines, the facility shall be planned keeping in mind the maximum peak hour patient load and shall have the scope for future expansion. OPD shall have approach from main road with signage visible from a distance. Waiting room/space with seating arrangement for patients to wait for their turn to see the doctors, toilets, drinking water, etc., are some of the basic facilities to be provided at OP department in Government HCFs. The non-availability of these facilities is given in **Table 3.2**. A couple of illustrative photos are given as **Exhibits 3.7** and **3.8**.

Table 3.2: Non-availability of certain basic amenities in the OPD of sampled HCFs

Sl. No.	Availability of basic amenities in OPDs	Not available in sampled HCFs (except MCHs)						Total *(In per cent)*
		DHQH	TKH	NTKH	BPHC	UPHC and PHC	Urban PHC	
Sampled HCFs		5	6	5	10	9	7	42
1	**Reception and Enquiry**: Enquiry/May I Help desk shall be available with competent staff fluent in local language.	0	0	1	2	0	0	3 *(7)*
2	Adequate waiting area with seating facility with fans/coolers	0	1	0	1	0	0	2 *(5)*
3	Patient amenities like Potable drinking water, Functional and clean toilets with running water and flush.	0	0	0	0	0	0	0 *(0)*
4	Patient calling systems (Manual/Digital).	1	3	1	2	2	1	10 *(24)*

(Source: Details furnished by the sampled HCFs)

Exhibit 3.7: Unclean toilet at Urban PHC, Vettavalam

Exhibit 3.8: OP counter functioning under asbestos sheet at Urban PHC, Modakuruchi

(Source: Joint Physical Verification)

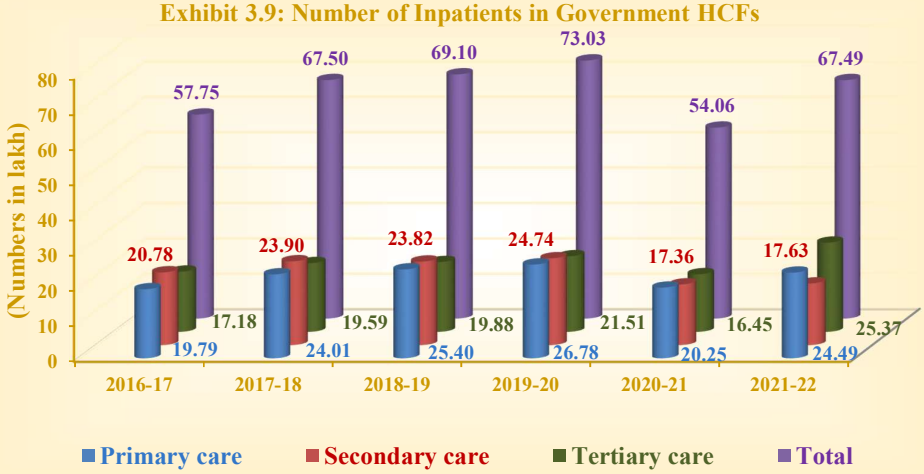
Non-availability of basic amenities in OP department clearly indicated that the infrastructural facilities were not adequate to provide decent services to the public. The facts were further confirmed by the patient's survey conducted during Audit.

3.2 Inpatient Department Services

3.2.1 Inpatient services in the State

The inpatient details under primary, secondary and tertiary care services in the State during 2016-17 to 2021-22 is shown in **Exhibit 3.9.**

Exhibit 3.9: Number of Inpatients in Government HCFs



(Source: Details furnished by Directorates)

3.2.2 Availability of beds in sampled Medical College Hospitals

As per MCI norms[10], a fully functional teaching hospital attached with Medical Colleges with 100 and 150 MBBS admissions, should have a minimum of 300 and 700 beds respectively. Audit observed that the authorised bed strength

[10] Minimum standard requirements for the Medical College for 100/150 admissions annually regulations, 1999.

of all sampled GMCHs is higher than that stipulated by MCI. The authorised bed strength and the actual number of beds available are given in **Table 3.3**.

Table 3.3: Authorised bed strength and number of beds available in sampled MCHs

Sl. No.	Location of the Government MCH	Number of MBBS seats[11]	Bed strength			Surplus	
			Required as per MCI	Authorised by the State	Available	No.	In *per cent*
1	Erode	100	300	510	1,080[12]	780	*260*
2	Karur	150	700	700	1,200	500	*71*
3	Thanjavur	150	700	1,466	1,478	778	*111*
4	Theni	100	300	876	1,126	826	*275*
5	Tiruvannamalai	100	300	740	1,003	703	*234*

(Source: Details furnished by the respective GMCH)

As seen from **Table 3.3**, all the sampled GMCHs have beds available more than the authorised strength, the surplus ranging from 71 *per cent* (Karur) to 275 *per cent* (Theni).

3.2.3 Availability of wards and beds in sampled District Headquarters hospitals

As per IPHS norms, the Inpatient Department shall be categorised into various wards[13]. Further, as per need and infrastructure, the hospital is to have other[14] wards. The types of wards and the number of beds available in these wards in the sampled DHQHs are given in **Appendix 3.9**.

Audit observed that all sampled DHQHs have beds for major specialities like Medical, Surgical, Maternity, Paediatric etc. However, burns ward was not available in three[15] DHQHs.

3.2.4 Inadequate bed strength in ICU in sampled DHQHs

IPHS norms prescribed that up to 10 *per cent* of total bed strength of the hospital should be made available in ICU of the DHQHs. The availability of ICU beds against the IPHS is shown in **Table 3.4**.

Table 3.4: ICU beds available in sampled District Headquarters hospitals

Location of DHQH	Total Bed strength	ICU beds as per IPHS Norms	ICU beds available	Shortage	Shortfall of ICU beds *(In per cent)*
Cheyyar	226	23	8	15	*65*
Kumbakonam	774	77	50	27	*35*
Perambalur	477	48	6	42	*88*
Periyakulam	296	30	6	24	*80*

(Source: Details furnished by the respective sampled DHQH)

11 In the Medical Colleges to which the sampled GMCHs are attached.

12 The Dean of GMCH, Erode stated (January 2024) that 180 beds are not being used due to very old buildings and roof leakage.

13 Male Medical ward; Male surgical ward; Female Medical ward; Female surgical ward; Maternity ward; Paediatric ward; Nursery and Isolation ward.

14 Emergency ward/trauma ward; Burn ward; Orthopaedic ward; Post-operative ward; Ophthalmology ward; Malaria ward; Infectious Disease ward and Private ward (if required).

15 Cheyyar, Perambalur and Periyakulam.

As seen from **Table 3.4**, in four out of five sampled DHQHs, the number of ICU beds did not meet the prescribed IPHS norm, and the shortfall in bed strength ranged from 35 *per cent* to 88 *per cent* which hampered the ICU services.

During JPV of sampled hospitals, it was seen that NTKH, Chinnamanur, and TKH, Manmangalam, having 54 and 60 beds respectively, did not have designated ICUs and had makeshift arrangements without adequate equipment for treating patients requiring intensive care (**Exhibits 3.10** and **3.11).**

Exhibit 3.10: ICU in non-Taluk hospital, Chinnamanur functioning at a Veranda

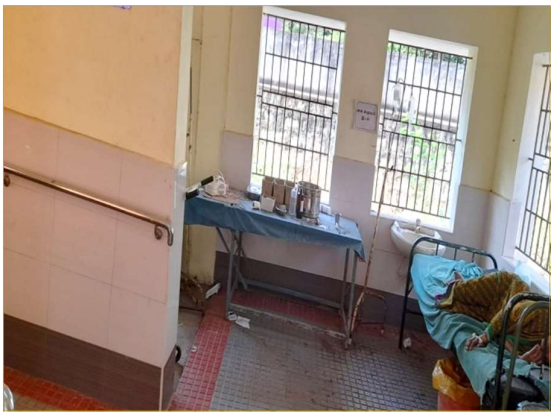


Exhibit 3.11: ICU in Taluk hospital, Manmangalam functioning at General Ward

(Source: Joint Physical Verification)

3.2.5 Shortage of Operation Theatres

As per IPHS norms for District hospitals, there should be one Operation Theatre (OT) for every 50 general beds and every 25 beds in surgical wards. The shortage of OTs in the sampled DHQHs is given in **Table 3.5**.

Table 3.5: Shortage of operation theatres

Location of the DHQH	Bed strength	Number of OTs required	Number of OTs available	Shortage of OTs	Shortfall *(In per cent)*
Cheyyar	226	5	4	1	*20*
Erode	725	14	4	10	*71*
Kumbakonam	774	15	3	12	*80*
Perambalur	477	10	4	6	*60*
Periyakulam	296	6	5	1	*17*

(Source: Details furnished by sampled DHQHs)

DHQHs in Erode, Kumbakonam and Perambalur had severe shortage of OTs and hence the available infrastructure was over-stretched with an average of more than five surgeries per OT per day. Surgeries were scheduled only on day-to-day basis in DHQHs at Cheyyar and Erode due to non-availability of adequate number of OTs and the need to prioritise emergency cases.

Thus, Audit observed that the shortage of OTs and the consequent overloading of surgery cases in the available OTs is fraught with the risk of compromising with the medical care to patients requiring surgeries on urgent basis.

3.2.6 Availability of inpatient wards and beds in the sampled TKHs and NTKHs

The details of availability of inpatient wards in the sampled TKHs and NTKHs and the number of beds available in these wards are given in **Appendix 3.10**.

Audit observed that:

- Except in two[16] TKHs, burns ward was not available in the remaining sampled TKHs/NTKHs.
- Except in three[17] HCFs, surgical wards were not available in the remaining TKHs/NTKHs.
- In TKH, Karai, the Paediatric and Post-operative wards had no cots but were only provided with six and two mattresses respectively.

3.2.7 Availability of beds in sampled PHCs with Maternity and Child care

The availability of beds, labour room and OT for Vasectomy and Tubectomy in the sampled PHCs, are given in **Appendix 3.11**.

Audit observed the following:

- In BPHC, Naducauvery, against a sanctioned bed strength of 30, only 23 are available and the rest are damaged.
- In PHC, Kaikalathur, against a sanctioned bed strength of six, only two beds are in use due to insufficient space. Further, the PHC does not have a Labour room.
- In PHC, Kurangani, against a sanctioned bed strength of six, only four are available.
- In 12 PHCs, the OT is not available for conducting Vasectomy and Tubectomy operations.
- In BPHC, Nammiyampattu, the existing OT is not functional.

3.2.8 Availability of Isolation Wards

The availability of Isolation Wards, both positive and negative isolation wards, in the sampled Secondary care HCFs are given in **Appendix 3.12**. In the sampled 16 Secondary care HCFs, eight (50 *per cent*) did not have any Isolation ward.

16 Andipatti and Thandarampattu.
17 TKHs at Andipatti, Bhavani; NTKH, Kavandapadi.

3.2.9 Availability of surgical procedures and surgery load per surgeon in the sampled HCFs

Services rendered by doctors in terms of number of consultations and surgeries could be an effective indicator of the performance of the doctors. It was, however, seen that Government HCFs of the State did not utilise HMIS to assess the performance of doctors with reference to specific indicators although it had features to capture doctor-wise performance. However, the same was not functional in the sampled HCFs.

The availability of surgeons, the various types of surgical procedures carried out and the average number of surgeries carried out by surgeons in the sampled Secondary care hospitals during the period 2016-22 is given in **Appendix 3.13**.

Audit observed that while the sampled DHQHs[18] had adequate surgeons posted and surgeries conducted in major specialties[19], the sampled TKHs/NTKHs had surgeons posted for only one or two specialties.

3.2.10 Evaluation of inpatient services through Outcome Indicators

To provide a comprehensive abstract on the IPD services provided by the sampled Secondary and Tertiary care hospitals, outcome indicators like Bed occupancy rate, Bed turnover rate, Discharge rate, referral out rate, length of stay, LAMA[20] rate and absconding rates were collated. The average rates of these outcome indicators for the period 2016-22 is given in **Appendix 3.14**.

Audit observed that the number of patients who had left against medical advice or were absconding were higher in the sampled GMCHs.

3.3 Emergency services

3.3.1 Availability of Emergency services in sampled Secondary care Hospitals

The IPHS guidelines for secondary care hospitals[21] stipulate the norms for 'Accident and Emergency Services' that should be available in these hospitals. The details of facilities available in the 16 sampled secondary care hospitals are given in **Appendix 3.15**.

Audit observed the following:

- Six[22] HCFs do not have 24x7 operational emergency with dedicated Emergency room with adequate manpower.
- In nine[23] HCFs, the 'Emergency Block' does not have mobile X-ray/ laboratory, side labs/plaster room/and minor OT facilities.

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18 Except DHQH, Erode.

19 ENT, General surgery, Obstetrics and Gynaecology, Ophthalmology, Orthopaedics and Dental.

20 Left against medical advice.

21 IPHS Guidelines for District Hospitals and Sub-District/Sub-Divisional Hospitals.

22 Three TKHs (Andipatti, Manmangalam and Thandarampattu) and three NTKHs (Chinnamanur, Kavandapadi and Thirukkattupalli).

23 Four TKHs (Andipatti, Karai, Manmangalam and Thandarampattu) and five NTKHs (Chinnamanur, Kavandapadi, Thanipadi, Thirukkattupalli and Velayuthapalayam).

- Separate emergency beds are not provided for in three[24] HCFs.
- The Emergency Block in certain HCFs does not have Cardiac Monitor with Defibrillator (seven[25] HCFs), Multiparameter Monitor (two[26] HCFs) and Ventilator (six[27] HCFs).

3.3.2 Availability of Emergency services in sampled Block PHCs

The IPHS guidelines for 'Community Health Centres' stipulate the norms for availability of 'Care of routine and Emergency cases' in Surgery and Medicine. The availability of these services in the 10 sampled Block PHCs are given in **Appendix 3.16**.

Audit observed the following:

- None of the sampled Block PHC had the facility to handle emergencies like Intestinal Obstruction, Haemorrhage, etc.
- Except in two[28] Block PHCs, facilities for fracture reduction and putting splints/plaster cast were not available.
- Three[29] Block PHCs did not have the facility to handle burns cases.

3.3.3 Availability of 24-hour Emergency services in sampled PHCs

The IPHS guidelines for 'Public Health Centres' stipulate the norms[30] for availability of '24-hour emergency services' in PHCs. Audit observed that all the stipulated services were available in all the sampled PHCs.

3.3.4 Emergency care through Government HCFs

Tertiary care hospitals, secondary care hospitals and Block PHCs provide 24-hour services including emergency care services. The types of emergency services available in them were not uniform, with the tertiary care hospitals having a wide range of services and the Block PHCs having only a limited number of services.

To standardise, streamline and strengthen the emergency care network in the State, GoTN started Tamil Nadu Accident and Emergency Care Initiative (TAEI) in 2017. TAEI aims to bring together all the emergency medical services encompassing management of six[31] emergencies. The Managing Director, NHM is designated as ex-officio Commissioner of Trauma Care in the State.

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24 Two TKHs (Karai and Manmangalam) and NTKH, Kavandapadi.

25 TKHs at Andipatti, Karai, Manmangalam and Thandarampattu; NTKHs at Chinnamanur, Kavandapadi and Thirukattupalli.

26 NTKHs at Kavandapadi and Thirukattupalli.

27 TKHs at Andipatti and Karai; NTKHs at Chinnamanur, Kavandapadi, Thanipadi and Thirukattupalli.

28 Chennimalai and Chinnadharapuram.

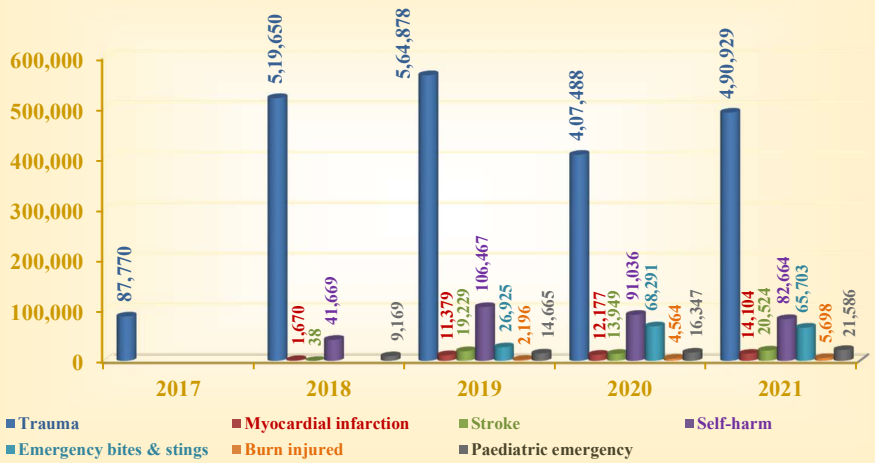
29 Chennimalai, Naducauvery and Vallam.

30 Management of injuries and accident; First aid; Stitching of wounds; Incision and drainage of abscess; Stabilisation of patient; Dog/Snake/Scorpion bites and Medical Officer on call basis.

31 Management of (i) Stroke, (ii) Myocardial infarction (MI), (iii) Trauma (including Road Traffic Accidents), (iv) Burns, (v) Poison and (vi) Paediatric emergencies and other life-threatening conditions.

As of March 2022, 86 TAEI centres have been established across the State in 39 DME Institutions, 20 DHQHs and 27 Sub-District Hospitals located in strategic locations along the Highways. The performance of these TAEI centres during the period 2017-21 is given in **Exhibit 3.12**.

Exhibit 3.12: Number of patients treated at the TAEI centres during the period 2017-21



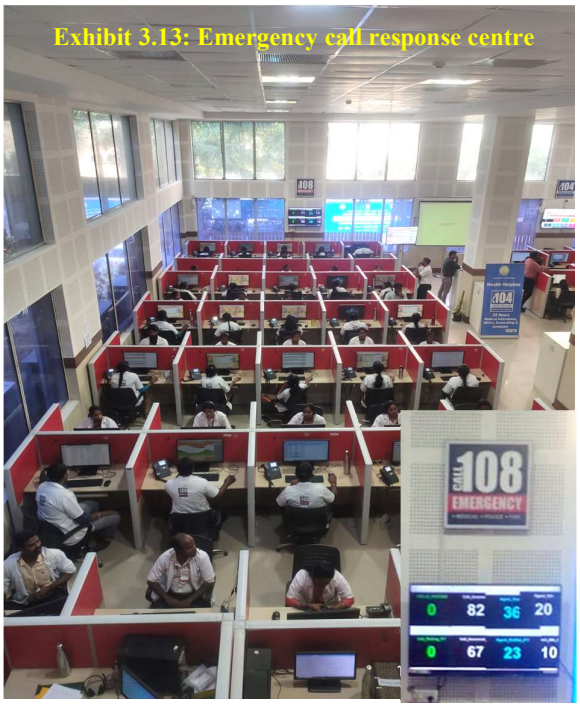
(Source: Policy Note of HFW Department 2022-23)

Audit found that the number of patients treated at these centres increased significantly during 2018 and 2019 but fell sharply during 2020 and 2021.

3.3.5 '108' Emergency Ambulance Services

In September 2008, through a Memorandum of Understanding (MoU) with the Emergency Management Research Institute (EMRI), Hyderabad, GoTN launched the Free '108 Ambulance' services. The MoU was subsequently extended in July 2013, April 2019 and February 2020. The district-wise distribution of ambulances, EMTs and Pilots are given in **Paragraph 2.9**.

Exhibit 3.13: Emergency call response centre

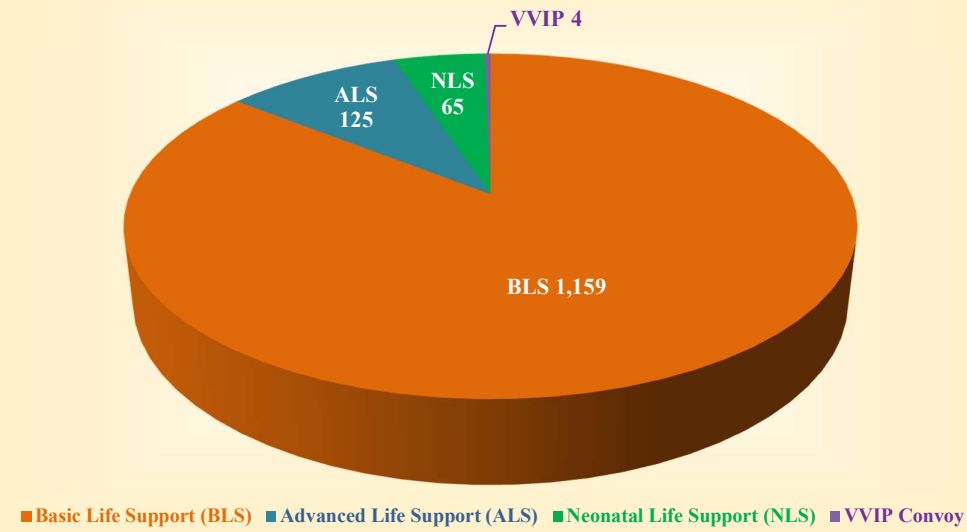


(Source: Photograph taken by Audit team during joint physical verification)

The '108 Ambulance' service aims at reaching the patients/sites within 20 minutes to shift the patient to the nearest hospital. The emergency transportation through ambulance is free. This service is managed by the Emergency Call Response Centre, functioning at Chennai (**Exhibit 3.13**).

As of March 2022, the State had a fleet strength of 1,353 ambulances and 41 First Responder Bike Ambulances, the details of which are given in **Exhibit 3.14**.

Exhibit 3.14: Details of Ambulance fleet strength in the State



(Source: HFW Policy Note 2022-23)

GoTN, while issuing (February 2020) orders for extension of '108 Ambulance' services for a further period of two years, laid out an additional condition that suitable performance indicators be reviewed annually. Replying to a specific Audit enquiry in this regard, the Project Director (PD), Tamil Nadu Health System Project (TNHSP) stated (January 2023) that performance is reviewed, and due instructions are given periodically. The reply, however, was silent on the performance indicators which were stipulated to facilitate such a review. Audit found that neither the MoU nor PD, TNHSP had prescribed detailed performance indicators for the Ambulance services, except citing a standard response time of 20 minutes from the time of emergency call to reaching the scene. The data pertaining to each of the emergency calls attended by the '108 Ambulance' services are captured electronically. Audit analysed 17.43 lakh ambulance call records pertaining to the year 2021, and observed the following:

3.3.5.1 Ambulances used for Inter-facility transfers and Emergency calls

Out of 17.43 lakh cases, 10.74 lakh calls were emergency calls (61.6 *per cent*), directly received from the public. The remaining 6.49 lakh calls (37.26 *per cent*) related to Inter Facility Transfer[32] (IFT).

Out of 6.49 lakh IFT cases, the reasons stated for 5.52 lakh cases were 'Non-availability of duty doctors/specialists/facility'. The reasons for the remaining cases were not recorded.

[32] For transfer of patients from a lower healthcare facility like PHC to a higher hospital like DHQHs/MCHs.

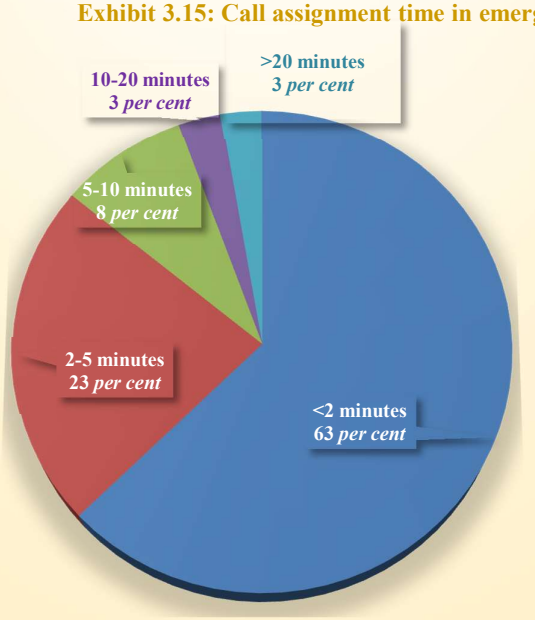
The ambulances are fitted with GPS to locate the site of emergency and to monitor the availability and mobility of the vehicle near the site of emergency. Data analysis revealed that GPS was not used in 2.75 lakh instances (25.6 *per cent*) out of 10.74 lakh emergency calls.

Although Audit could not analyse the reasons for non-usage of GPS in the ambulances, Audit observed that non-usage of GPS had resulted in non-availability of the details of ambulances that were in the vicinity of the accident/emergency site on a real-time basis.

3.3.5.2 Assignment of ambulance

EMRI has established '108 Ambulance' Control Rooms in Chennai and Pudukottai. Emergency calls are received in the Control Rooms and assigned to the nearest available ambulance team. Though GoTN has not prescribed any service level benchmark, EMRI strives to assign the calls to the ambulance team within 90 seconds of receipt of the call. Analysis of the call assignment time in emergency calls revealed that in 0.92 lakh cases (eight *per cent*), the time taken for assigning an ambulance was 5 to 10 minutes and in 0.60 lakh cases (six *per cent*), it took more than 10 minutes **(Exhibit 3.15)**. Delay in assigning the ambulance invariably increases the response time.

Exhibit 3.15: Call assignment time in emergency calls



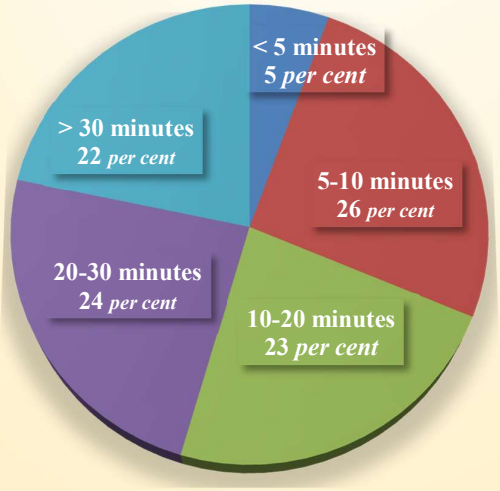
(Source: Analysis of '108 Ambulance' services data)

3.3.5.3 Response time of ambulance

Response time is the time taken by the ambulance to reach the scene. According to PD, TNHSP the average response time had significantly reduced from 19.22 minutes in 2016-17 to 14.24 minutes in 2020-21. Audit analysis of the data pertaining to 2021, however, revealed that in 2.56 lakh cases (24 *per cent*), the response time was between 20 to 30 minutes and more than 30 minutes in 2.33 lakh cases (22 *per cent*) **(Exhibit 3.16)**. Thus, the service

benchmark of a response time of less than 20 minutes was not achieved in 46 *per cent* of the cases.

Exhibit 3.16: Response time in emergency calls



(Source: Analysis of '108 Ambulance' service data)

3.3.5.4 Distance covered by ambulance to reach the scene

Although the distance covered by the ambulance to reach the scene was up to 10 km in 78 *per cent* of the cases, the distance covered was 11-30 km in 19 *per cent* and more than 30 km in two *per cent* of cases. This shows that the ambulances need to be located at more strategic locations to reduce the distance covered and time taken by the ambulance to reach the scene.

3.3.5.5 Errors due to manual data

It was observed that a vehicle monitoring desk in the Control Room tracks whether the ambulance allotted to a call is on the move. It is noticed that the data relating to time or distance covered is manually updated by the Ambulance Team on completion of each stage. Audit observed several potentially inaccurate capturing of data regarding the time of arrival of ambulance at the scene and at the hospital, and the distance covered by the Ambulance. It was found that in 1,477 cases, the distance covered by the ambulance from the base to the scene was more than 100 km and in 4,671 cases the response time was more than five hours. Two illustrative cases of such data capturing errors are given in **Table 3.6**.

Table 3.6: Illustrative cases of erroneous data capture

Details	Case 1	Case 2
Call ID	20210003523445	20210003571052
District/Incident Location	Chennai/R8 Vadapalani Police Station, Arcot Road, Vadapalani	Villupuram/ Arumpattu, Thiruvennainallur
Vehicle Location	FR - Vadapalani Police Station	Periyasevalai, Villupuram
Emergency Type/Subtype	Trauma (Vehicular)/2 Wheeler accidents	Acute Abdomen
Call Date	25-10-2021 16:04:58	30-10-2021 08:51:50
Call Assignment Time	25-10-2021 16:05:34	30-10-2021 08:53:19
Vehicle Departure Time	25-10-2021 16:06:34	30-10-2021 08:54:19
Scene Arrival Time	26-10-2021 10:06:00	30-10-2021 09:08:00
Response time (calculated)	18 hours 01 minute	16 minutes
Base Start/Scene Reach	18,320 km/18,321 km	2,96,601 km/2,96,797 km
Distance covered as per the information	1 km	196 km
Closure Remarks	victim conscious oriented vitals checked and first aid only given	victim conscious orientated vitals checked monitor non-critical shifted to hospital

(Source: Analysis of '108 Ambulance' service data)

In Case 1 shown in **Table 3.6**, the scene arrival time was updated after 18 hours. Similarly, in Case 2, the distance covered by the ambulance to reach the scene has been stated as 196 km, while the actual distance to the scene was verified as 6.4 km (between incident location and the vehicle location).

From the above, monitoring the vehicular movement solely based on manual update of each stage like scene arrival, scene departure, hospital reach etc., renders the monitoring unreliable. Relying on manual update of vital information such as above might lead to erroneous inference and affect monitoring.

Recommendation 3:

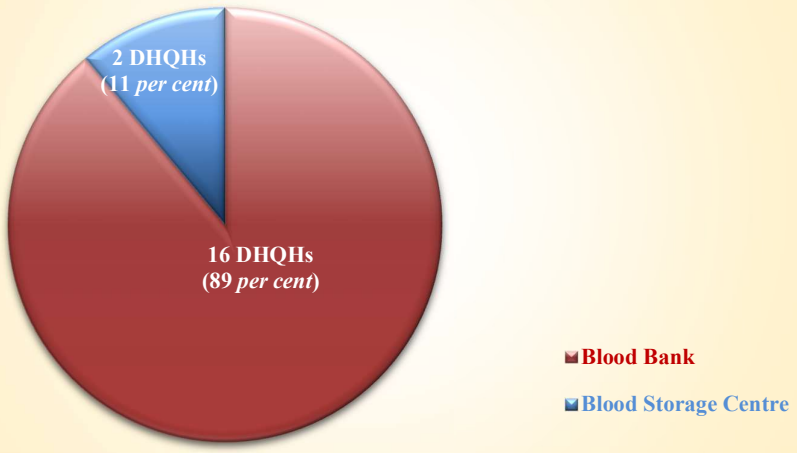
Government should study the feasibility and implement a fully automated monitoring system for ambulance service by linking the vehicle position using GPS.

3.3.6 Blood Banks/Blood Storage Units

Primary and secondary HCFs are to be provided with blood storage facilities including blood storage refrigerators, deep freezers, microscope, centrifuges etc.

The availability of Blood Banks/Blood Storage Centres in all the DHQHs, as of March 2022, is given in **Exhibit 3.17**.

Exhibit 3.17: Availability of Blood Banks/Blood Storage Centres in the DHQHs as of March 2022



(Source: Details furnished by DMRHS)

It is seen that out of 18 DHQHs, Blood banks are available in 16 DHQHs and Blood Storage Centres in the remaining two[33] DHQH.

In the sampled HCFs, Audit noticed that:

- Four[34] HCFs did not have any blood storage facilities.
- In four[35] HCFs, the supplied blood storage facilities were not used and kept idle.
- In two[36] and three[37] HCFs, the blood storage facilities are not being used due to non-availability of technician and unserviceability of a connected component respectively.

Thus, Audit observed that significant number of primary and secondary care HCFs were not equipped to meet emergencies.

3.4 Emergency response and Health System Preparedness Package

The COVID-19 pandemic caused serious impact on the healthcare networks of the State from March 2020 onwards. On 13 March 2020, GoTN declared COVID-19 as a notified disease under TN Public Health Act. The HFW Department spearheaded the State's response to COVID-19.

The following summarises GoTN's response and outcomes of COVID-19 as of 31 March 2022.

33 Dharmapuri (Pennagaram) and Tiruvannamalai (Cheyyar).
34 (i) TKH, Andipatti; NTKHs at (ii) Chinnamanur, (iii) Kavandapadi and (iv) Velayuthampalayam.
35 TKHs at (i) Karai and (ii) Manmangalam and (iii) BPHC, Chinnadharapuram. UPHC, Kadamalaigundu.
36 UPHCs at (i) Jamunamarathur, (ii) Modakuruchi.
37 (i) TKH, Bhavani (no freezing facility); BPHCs at (ii) Sivagiri (chest frozen equipment not functioning) and (iii) Vettavalam (Blood cell counter not functioning).

Number of COVID-19 Test Centres	336 (69 Govt.+ 267 Private)
Total number of Tests done	6.56 crore
Number of persons tested	6.44 crore
Number of hospital beds	1,21,208 (includes private hospitals)
Number of Oxygen beds	40,126 (includes private hospitals)
Number of ICU beds	9,287 (includes private hospitals)

3.4.1 Fund utilisation under COVID-19 in the State

(A) GoTN mobilised funds from different sources, including its own funds, GoI funds, State Disaster Response Funds, PM CARES, CM Relief Fund, etc., for providing healthcare, treatment of persons, rehabilitation for persons affected by COVID -19 and for containment/prevention of spread.

The National Health Mission, Tamil Nadu (NHM) managed the funds released for containing COVID-19. The receipt and utilisation of COVID-19 funds are given in **Table 3.7.**

Table 3.7: Utilisation of funds under COVID-19

(₹ in crore)

Year	Name of Scheme	GoI Share	State Share	Total	Expenditure	Balance
2019-20	COVID-19	48.24	32.16	80.40	72.45	7.95
2020-21	COVID-19	882.11*	--	882.11	828.89	53.22
2021-22	COVID-19	505.24	319.73	824.97	621.41	203.56
Total		**1,435.59**	**351.89**	**1,787.48**	**1,522.75**	**264.73**

* 100 *per cent* GoI share

(Source: Details furnished by NHM)

Audit found that as of 31 March 2022, ₹264.73 crore (15 *per cent*) out of ₹1,787.48 crore released to NHM was unspent, which included GoI share of assistance.

(B) TNMSC was involved in procurement of drugs, medicines, etc., for fighting COVID-19. The details of funds (both GoI and GoTN) released to TNMSC, utilised by TNMSC for supply of drugs, medicine, etc., are given in **Table 3.8**.

Table 3.8: Funds released to TNMSC and utilised for COVID-19

(₹ in crore)

Year	Opening balance	Funds received	Expenditure	Balance (As on March 2022)
2019-20	0	467.64	467.64	NIL
2020-21	0	191.14	191.14	NIL
2021-22	0	424.23	424.23	NIL
Total		**1,083.01**	**1,083.01**	**NIL**

(Source: Details furnished by TNMSC)

3.4.2 Oxygen management

During the second wave of COVID-19, the provision of oxygen to the needy patients was to be effectively managed by increasing the oxygen storage and by procuring oxygen concentrators. GoI provided 4,689 oxygen concentrators of five litre per minute (LPM) capacity and 10 LPM capacity. The State also arranged the medical oxygen availability by procuring/installing containers and Pressure Swing Adsorption (PSA) Generators, oxygen concentrators. As of March 2022, a total of 23,020 oxygen concentrators were available in Government HCFs.

The details of oxygen concentrators allotted to the State by GoI under Emergency COVID Response Package (ECRP II) and PM CARES, is given in **Table 3.9** (as of August 2022).

Table 3.9: Details of Oxygen Concentrators allotted by GoI for management of COVID-19

Details	5 LPM	10 LPM	Total
Allocated by MoHFW to State	932	3,757	4,689
Allocated by State to Districts	932	3,757	4,689
Installed in Health facilities	932	3,610	4,542
Functional Oxygen Concentrators	931	3,609	4,540
Faulty Oxygen Concentrators	1	1	2

(Source: Details furnished by NHM)

Audit found that 147 out of the 3,757 oxygen concentrators of 10 LPM were not installed even as of March 2022.

3.4.2.1 Availability of Ventilators, Oxygen concentrators and Covid drugs in sampled Primary and Secondary HCFs

The availability of ventilators, oxygen concentrators and Covid drugs in the sampled MCHs, DHQHs, TKHs and NTKHs are given in **Table 3.10**, the details of which are given in **Appendix 3.17**.

Table 3.10: Availability of Ventilators, Oxygen concentrators and Covid drugs

Type of sampled HCF	Number sampled	Availability of					
		Ventilators				Oxygen concentrators	Covid drugs
		PM CARES	Other sources	Total	Under repair		
MCHs	5	192	516	708	7	333	3
DHQHs	5	71	122	193	0	42	1
TKHs	6	6	7	13	3	173	1
NTKHs	5	0	5	5	0	67	3
Total	**21**	**269**	**650**	**919**	**10**	**1,967**	**8**

(Source: Details furnished by the respective HCFs)

As seen from **Appendix 3.17**, in the 21 sampled HCFs, six[38] HCFs (29 *per cent*) do not have ventilators and 13 HCFs (62 *per cent*) do not have Covid drugs in their stock as of January 2024.

3.4.2.2 Non-functioning of oxygen generator

A Pressure Swing Adsorption (PSA) oxygen generator plant was purchased and installed (October 2021) at GMCH, Tiruvannamalai at a cost of ₹1.04 crore. The plant did not deliver oxygen as per standards and delivered only 80 *per cent* oxygen saturation, which could not be used for critically ill patients. The MCH referred the matter to TNMSC in June 2022, but no action was taken.

Similarly, a PSA oxygen generator was installed (October 2021) at DHQH, Cheyyar at a cost of ₹23.40 lakh. However, the plant was not used due to want of High Tension power supply as the generator plant faced frequent power fluctuations and the compressors used for the plant was also not functioning from June 2022.

As the PSA oxygen generator plants could not produce the required medical oxygen, the expenditure of ₹1.27 crore incurred towards their installation and commissioning became unfruitful.

3.4.3 Emergency procurement at higher rates

On 27 March 2020, GoTN exempted procurement of equipment and consumable, etc., medical care relating to COVID-19 by TNMSC from the ambit of Section 9 and 10 of TN Transparency in Tenders Act, 1998, which provides for open tender system. Therefore, TNMSC procured drugs, medicines and equipment for COVID care without open tenders. Rates were obtained from willing suppliers and orders were split among them based on the quantity offered by them within the desired timeframe.

Procurements during April to June 2020 were scrutinised.

Audit found that five suppliers had evinced interest to supply 15 lakh N-95 masks (code RC016) during April 2020. While the lowest quote was ₹42 per piece, the highest quote was ₹198.45 per piece. The quantity and rates quoted by different firms and quantity ordered to them are given in **Table 3.11**.

Table 3.11: Procurement of N-95 masks in April 2020

Supplier	Purchase order date	Quantity offered	Rate offered (In ₹)	Quantity ordered	Purchase order rate (In ₹)	Quantity supplied
Akshaya Impex, Chennai	Nil	1,00,000	152.25	0	0	0
Anitha Texcot, Tiruppur	02-04-2020	5,00,000	157.50	3,00,000	157.50	3,00,000
Hiren Pharma and Surgical, Chennai	02-04-2020	1,00,000	198.45	1,00,000	198.45	1,00,000
Rapha Technologies, Coimbatore	02-04-2020	10,00,000	147.00	5,00,000	147.00	5,00,000
Venus Safety and Health Pvt Ltd, Raighar	01-04-2020	5,00,000	42.00	5,00,000	42.00	5,00,000

(Source: TNMSC files)

[38] Three TKHs (Andipatti, Karai and Orathanadu) and three NTKHs (Chinnamanur, Kavandapadi and Thirukkattupalli).

Analysis of the procurement disclosed that:

- Even though Rapha Technologies had offered to supply 10 lakh N-95 masks, the order quantity was limited to five lakh without recording any reason, consequently four lakh N-95 masks were procured from two other suppliers who had quoted much higher rate of ₹198.45 and ₹157.50.
- The Managing Director, TNMSC had approved the proposal to place an order for one lakh N-95 masks of Akshaya Impex, but no orders were placed, and no reasons recorded therefor.

It was observed that by not placing orders for the full offered quantity of 10 lakh N-95 masks on Rapha Technologies, TNMSC had incurred an avoidable excess expenditure of ₹82.95 lakh[39].

3.5 Maternity services

Safe pregnancy, childbirth and postpartum period are important milestones in the continuum of care for mothers to achieve optimal maternal and neonatal outcomes that have a significant impact on the future of mothers, children and families in the long run.

3.5.1 Maternal and Childcare in all DHQHs

To provide definite emergency services for all pregnant women and Newborn, Comprehensive Emergency Obstetric and Newborn Care (CEmONC) Centres have been established in 93 Secondary care Hospitals and 36 Medical Colleges. These CEmONC centres provide 24x7 services and are equipped with Labour ward, Blood bank, Operation theatre and Newborn ward.

As of March 2022, the CEmONC centres are functioning in all DHQHs in the State.

3.5.2 Maternal indicators of the State

The NFHS 5 survey (2020-21) has indicated that the services towards the Antenatal and Postnatal services in the State has improved when compared to NFHS 4 survey (2015-16), the details of which are given in **Table 3.12**.

Table 3.12: Maternal indicators of the State as per NFHS surveys

(In *per cent*)

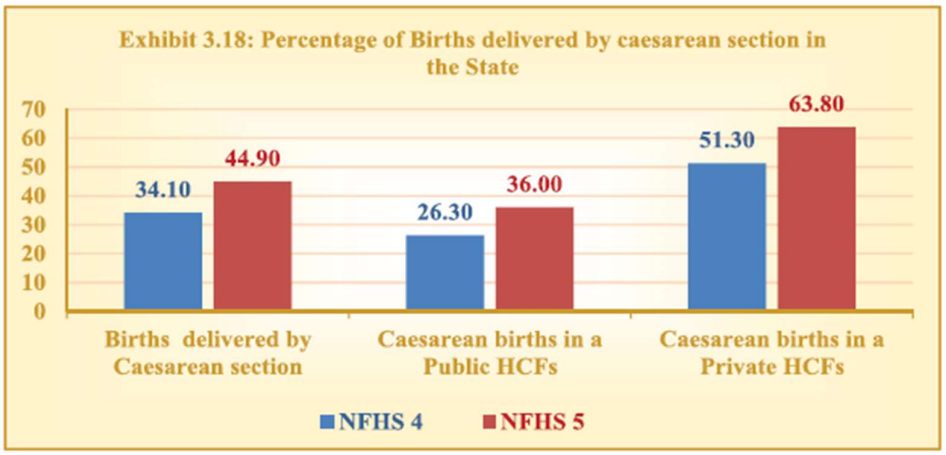
Indicators	NFHS 4 (2015-16)	NFHS 5 (2020-21)
Mothers who had an antenatal check-up in the first trimester	*64.00*	*77.00*
Mothers who had at least four antenatal care visits	*81.00*	*89.90*
Mothers whose last birth was protected against neonatal tetanus	*71.00*	*89.70*
Mothers who consumed iron folic acid for 180 days or more when they were pregnant	*40.10*	*63.10*
Institutional births	*98.90*	*99.60*
Institutional births in public facility	*66.70*	*66.90*

(Source: NFHS 4 and 5)

[39] (3,00,000 x ₹10.50) + (1,00,000 x ₹51.45).

3.5.3 High proportion of Lower Segment Caesarean Section

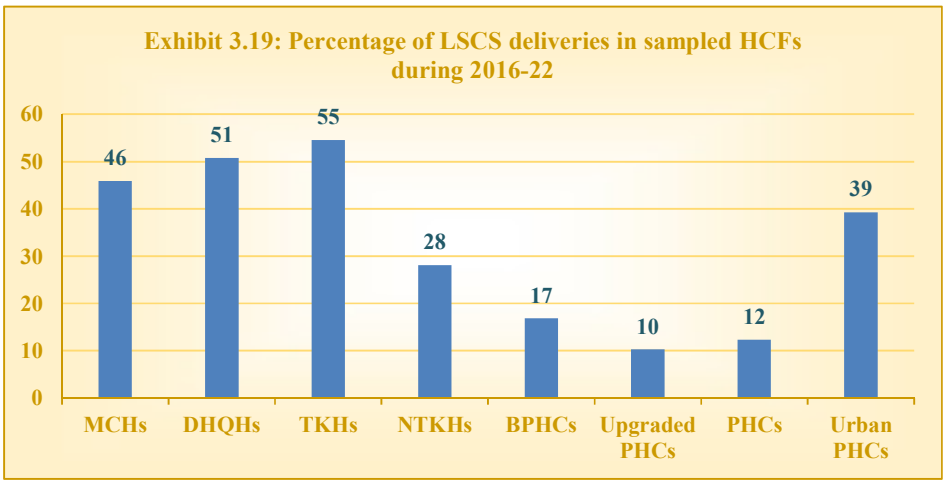
Lower Segment Caesarean Section (LSCS) is a surgical process carried out by the doctors when normal delivery is considered complicated or will put the mother or child at risk. NHM Guidelines has estimated that around 8 *per cent* to 10 *per cent* of deliveries may require LSCS. The details of births delivered by LSCS in the State is given in **Exhibit 3.18**.



(Source: NFHS 4 and 5)

It was, however, seen that as per NFHS-5, the percentage of LSCS to total deliveries in the State stood at 45 *per cent* against the national average of 21.5 *per cent*. The births that were delivered by caesarean section stood at 36 *per cent* in Government HCFs and 63.8 *per cent* in private facilities against the national averages of 14.3 *per cent* and 47.4 *per cent* respectively. It was seen that there was no system for Clinical Audit or Peer review of surgeries performed by doctors at Government HCFs.

In the sampled 47 HCFs, the overall percentage of deliveries through LSCS during 2016-22 was 46 *per cent*, as shown in **Exhibit 3.19**.



(Source: Details furnished by the respective sampled HCFs)

As seen from **Exhibit 3.19**, the percentage of LSCS deliveries ranged from 10 *per cent* in Upgraded PHCs to 55 *per cent* in TKHs.

Government replied (August 2022) that the high proportion was due to high-risk pregnancy cases. However, the reply was not based on statistics from conducting clinical audits/peer reviews.

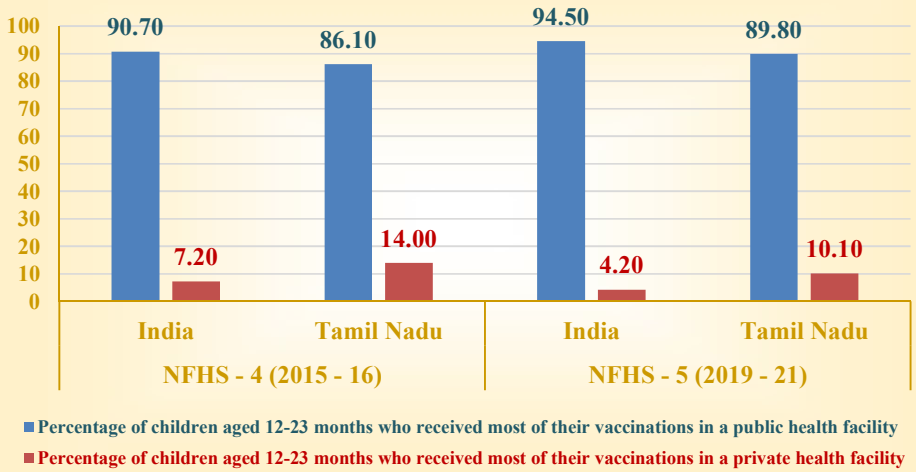
Recommendation 4:
Government should put in place a mechanism for clinical audit of the circumstances leading to the high proportion of LSCS deliveries in the HCFs.

3.5.4 Vaccination of birth doses to new-born

Immunisation, as an important and effective health intervention for children, has helped keep millions of children protected against infectious and life-threatening diseases. Vaccines are most effective when they are administered to children at the right age and with the recommended dosage as children are susceptible to certain diseases at certain ages. As per the National Immunisation Schedule for infants, BCG, Hepatitis 'B' and Oral Polio Vaccine (OPV) should be given at birth.

The percentage of children aged 12-23 months, who received most of their vaccinations in a public/private health facility as per NFHS 4 and 5, is given in **Exhibit 3.20**.

Exhibit 3.20: Percentage of Child vaccinations as per NFHS 4 and 5



(Source: NFHS 4 and 5)

The achievement of birth doses given to new-borns during 2020-21 in the State and the sampled districts are given in **Table 3.13**.

Table 3.13: Percentage of achievement of birth doses given to newborn during 2020-21

Name of State/District	Total live births during 2020-21	Achievement during 2020-21 (In *per cent*)		
		Vitamin 'K'	OPV	Hepatitis B
Tamil Nadu	9,15,967	*98*	*99*	*99*
Erode	27,808	*100*	*100*	*100*
Karur	12,494	*100*	*100*	*100*
Perambalur	7,876	*100*	*100*	*100*
Thanjavur	38,355	*82*	*87*	*87*
Theni	16,228	*87*	*92*	*87*
Tiruvannamalai	25,372	*92*	*96*	*97*

(Source: NHM's HMIS Report)

Thanjavur District performed much below the State's average in vaccination achievements.

3.5.5 Length of stay after childbirth

The 'length of stay' following childbirth serves as an indicator of quality of postnatal care in health institutions. Adequate 'length of stay' at a HCF promotes maternal health outcomes, which reduces post-delivery complications. The total number of women discharged within 48 hours after delivery during 2016-21 is given in **Table 3.14**. The sufficient 'length of stay' at public HCFs contributed to the good performance in terms of Infant Mortality Rate and Maternal Mortality Rate.

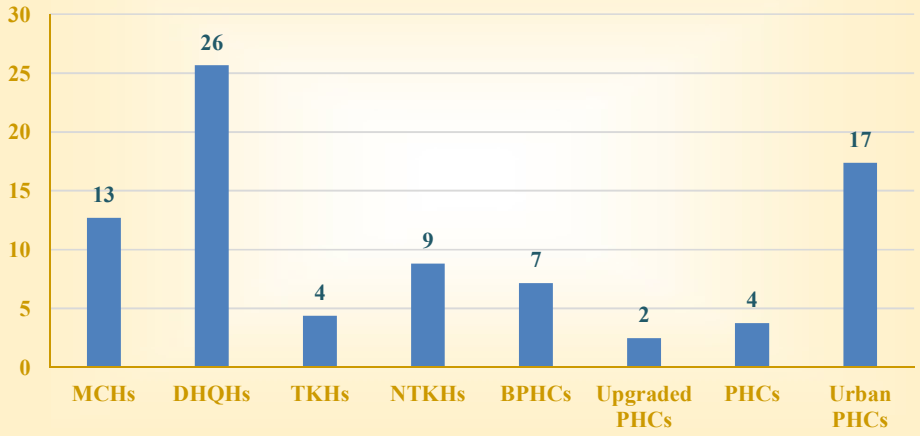
Table 3.14: Total number of Women discharged within 48 hours after delivery during 2016-21

Name of State/District	Total number of institutional deliveries	Total number of women discharged within 48 hours of delivery	In *per cent*
Tamil Nadu	50,78,223	71,732	*1*
Erode	1,35,894	603	*0*
Karur	68,190	935	*1*
Perambalur	44,625	30	*0*
Thanjavur	1,70,280	1,998	*1*
Theni	90,636	1,701	*2*
Tiruvannamalai	1,75,184	2,812	*2*

(Source: NHM's HMIS Reports for the respective years)

In the sampled 47 HCFs, the overall percentage of women discharged within 48 hours after delivery was 16 *per cent*, the details of which is shown in **Exhibit 3.21**.

Exhibit 3.21: Percentage of women discharged within 48 hours after delivery during 2016-22



(Source: Details furnished by the respective sampled HCFs)

As seen from **Exhibit 3.21**, the percentage of women discharged within 48 hours of delivery ranged from two *per cent* in Upgraded PHCs to 26 *per cent* in DHQHs.

3.5.6 Maternity care outcomes

3.5.6.1 Still births and conduct of death reviews

The Still Birth Rate is defined as the number of babies born with no signs of life at 28 weeks or more of gestation, per 1,000 total births. The details of still births and conduct of death reviews in the 47 sampled HCFs during the period 2016-22 is given in **Appendix 3.18.**

The Still Birth Rate for India and Tamil Nadu was three and two respectively for the period 2018-20[40]. Audit, however, observed that during 2016-22, a total of 2,643 still births occurred in the sampled HCFs, and 252 maternal death reviews and 1,497 neonatal death reviews were conducted at these HCFs.

3.5.6.2 Other indicators

The other indicators such as average rate of referral, LAMA and absconding cases in the sampled[41] HCFs, during the period 2016-22, is given in **Table 3.15.**

[40] As per the Sample Registration System Statistical Report, 2020.

[41] The sampled HCFs, which had zero Rate of referral, LAMA and Absconding cases, have not been included in the Table.

Table 3.15: Maternity care outcomes: Average rate of referral, LAMA and absconding cases in the sampled HCFs, during the period 2016-22

Sl. No.	Name of sampled HCF	Maternity Care Outcomes - Average during 2016-22		
		Rate of referral	LAMA	Average absconding cases in a year
MCHs				
1	Erode	0	5	3
2	Karur	45	9	40
3	Thanjavur	0	15	781
4	Theni	0	0	257
5	Tiruvannamalai	26	49	485
DHQHs				
1	Cheyyar	9	3	0
2	Erode	141	67	14
3	Kumbakonam	213	31	96
TKHs				
1	Bhavani	101	0	0

(Source: Details furnished by the respective sampled HCFs)

3.6 Diagnostic services

IPHS guidelines prescribe the availability of laboratory Services at District Hospitals/Community Health Centres/PHCs to serve the purpose of public health laboratory and to perform all tests required to diagnose epidemics or important diseases from public health point of view. The availability of the mandatory pathological services in the sampled DHQHs, TKHs/NTKHs and PHCs are given in **Tables 3.16, 3.17** and **3.18** respectively. The availability of mandatory pathological services in all the DHQHs is given in **Appendix 3.19**.

Table 3.16: Availability of diagnostic services in sampled DHQHs

Location of the DHQH	Clinical pathology (29)	Pathology (08)	Micro-biology (07)	Serology (07)	Bio-chemistry (21)
Cheyyar	6	5	1	11	10
Erode	17	10	17	5	26
Kumbakonam	25	0	20	8	25
Perambalur	0	3	7	4	15
Periyakulam	14	0	0	1	9

(Figures in bracket represent the mandatory number of tests under respective category)
(Source: Details furnished by the sampled HCFs)

Audit observed that Periyakulam and Cheyyar hospitals which were upgraded during the last five years had shortfalls in the availability of tests with reference to norms, and the Perambalur hospital which has been a DHQH for long also suffered shortages, which was unexplainable.

Table 3.17: Availability of diagnostic services in sampled TKHs/NTKHs

District	Location	Clinical pathology (24)	Pathology (01)	Micro-biology (04)	Serology (04)	Bio-chemistry (06)
Erode	Bhavani	1	3	1	5	5
	Kavandapadi	0	2	0	2	3
Karur	Manmangalam	13	0	2	4	6
	Velayutham-palayam	7	0	2	4	5
Perambalur	Karai	7	0	0	6	14
Theni	Andipatti	2	1	1	1	5
	Chinnamanur	10	0	1	3	5
Tiruvannamalai	Thandrampet	2	3	3	4	4
	Thanipadi	2	5	2	5	12

(Figures in bracket represent the mandatory number of tests under respective category)
(Source: Details furnished by the sampled HCFs)

Table 3.18: Availability of diagnostic services in sampled PHCs

District	Name of CHC/PHC	Clinical pathology (18)	Pathology (01)	Micro-biology (02)	Serology (03)	Bio-chemistry (05)
Erode	Thingalur	7	0	2	4	3
	Modakurichi	4	5	2	4	4
	Sivagiri	0	4	0	3	4
	Chennimalai	6	2	1	4	4
Karur	Chinnadhara-puram	6	0	2	3	3
	Kadavur	8	0	1	3	5
Perambalur	Ammapalayam	5	1	0	3	3
	Kaikalathur	0	0	0	0	0
Theni	Kadamalaigundu	8	0	1	3	4
Tiruvanna-malai	Vettavalam	3	4	1	4	6
	Karapattu	3	9	1	4	4
	Jamunamarathur	4	4	1	5	4
	Nammiyampattu	4	4	1	5	4

(Figures in bracket represent the mandatory number of tests under respective category)
(Source: Details furnished by the sampled HCFs)

- Shortfall in pathology services, as against the IPHS norms, was noticed in five DHQHs, 11 TKHs/NTKHs and 23 PHCs **(Appendix 3.20)**. It was observed that certain important pathological tests like Total Leucocyte count, RA factor, Absolute Eosinophil count, PAP smear were not carried out in these HCFs despite availability of equipment and manpower.

- IPHS has prescribed the time limit for furnishing of results to each test to reduce the 'Waiting Time'[42] and 'Turn Around Time'[43]. Audit found that in the sampled HCFs, no records were maintained regarding 'Waiting Time' and 'Turn Around Time' during 2016-21.

[42] Time taken in receiving samples from the patients after being prescribed by the doctors for investigations.
[43] Time taken in getting the investigation done and reporting results to the patients.

Thus, proper monitoring of timely delivery of services was not possible.

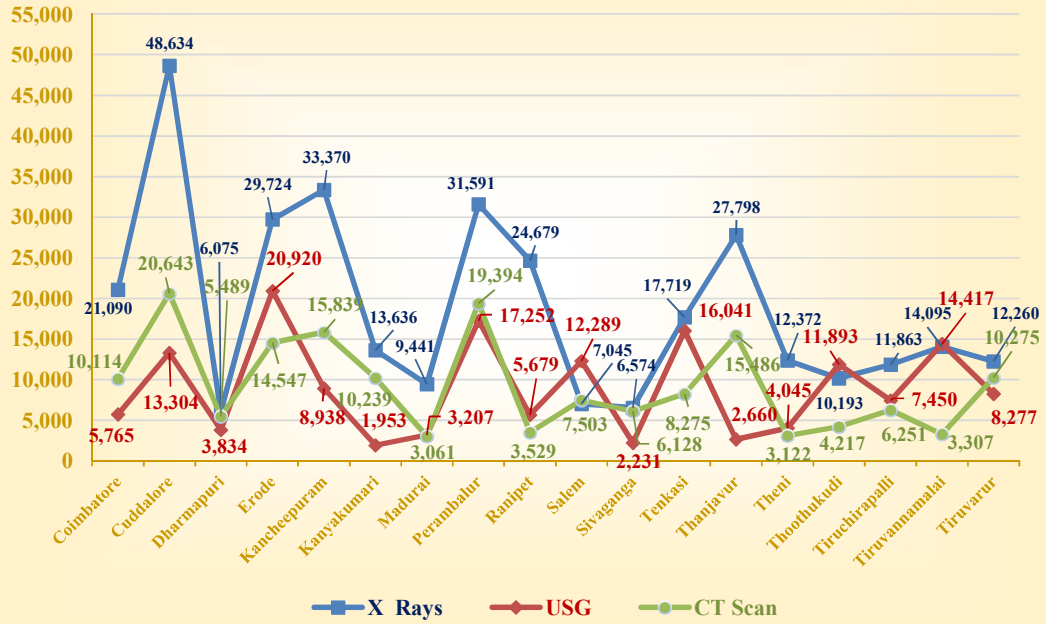
- Due to non-availability of diagnostic equipment such as X-ray machine and Electrocardiogram (ECG) machine, UPHC, Gobichettipalayam and Central UPHC, Tiruvannamalai referred 659 and 710 patients respectively to other medical institutions.

Thus, Audit observed that inadequacy in diagnostic services negatively impacted patient care and put them to hardship.

3.6.1 Radiological/Imaging services in all DHQH

The details of imaging services carried out in all the 18 DHQHs during 2021-22 is presented graphically in **Exhibit 3.22**.

Exhibit 3.22: Details of Imaging services done in all DHQHs during 2021-22



(Source: Details furnished by DMRHS)

Further, the audit findings on radiological services in the sampled HCFs are given in **Paragraphs 4.8.1** to **4.8.4**.

3.7 Auxiliary and Support Services

3.7.1 Dietary Services

As per Government Orders, specific diets were to be supplied to inpatients based on individuals' health condition. To meet the specific dietary requirements of inpatients, all HCFs with inpatient facility provide customised diets to inpatients.

- As of March 2022, Dietary services were available in all the 18 DHQHs in the State.

- In 19 sampled secondary and tertiary HCFs[44], Dieticians were not available, and the same diet is supplied to all inpatients without considering the specific requirements of the patients. In five HCFs[45], cooks were not posted despite the hospitals having a full-fledged kitchen and patients were served only bread and milk.
- As per IPHS norms, quality and quantity of diet should be checked by the competent person on a regular basis. Audit observed that the same was not done in any of the sampled HCFs except DHQH, Perambalur.
- Inpatients' survey by Audit disclosed that 24 out of the 234 inpatients surveyed expressed their dissatisfaction about the quality and quantity of diet.

3.7.2 Laundry Services

The provision of clean linen is a part of patient care in HCFs. IPHS prescribed the number of different types of linen[46] that are required for patient care services in hospitals. In the sampled hospitals, it was noticed that:

- As of March 2022, laundry services were available in all the 18 DHQHs in the State.
- Fourteen sampled HCFs lacked adequate bed linen. The shortfall ranged from one to 100 *per cent*.
- In DHQH, Periyakulam, there were no manpower to operate the steam laundry and the machines were kept idle. No action was taken to appoint the boiler-operator yet.
- In six sampled HCFs[47] the existing laundries were non-functional as the equipment were not repaired and non-availability of operator. This resulted in outsourcing of services.

3.7.3 Non-availability of Mortuary services

As per IPHS norms and NHM Assessor's Guidebook, Mortuary facility should be provided in the HCFs for keeping of dead bodies and conducting autopsy. All the DHQHs in the State had mortuary facility. Out of the 17 sampled secondary care hospitals, three[48] did not have mortuary facility and seven[49] did not have freezer boxes in the mortuary for keeping dead bodies.

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44 Except MCHs at Erode and Tiruvannamalai.

45 DHQH, Perambalur; TKHs at Bhavani, Karai and Manmangalam and NTKH, Kavandapadi.

46 Abdominal sheets for OT, Bed sheets, Bedspreads, Doctor's overcoats, Draw sheets, Hospital worker OT coats, leggings, Macintosh sheets, Mats (Nylon), Mattresses (Foam) for adults, Mortuary sheets, over-shoe pairs, Pediatric mattress, Patient's coats (Female), Patient's shirts (Male), Perennial sheets for OT, Pillows, Pillow-covers, etc.

47 DHQH, Cheyyar, TKH, Andipatti; UPHCs at Karappattu, Modakkurichi, Sivagiri and Thingalur.

48 TKH, Manmangalam, NTKH, Thirukkattupalli and UPHC, Nammiyampattu.

49 DHQH, Periyakulam; TKHs at Andipatti and Thandrampattu; NTKHs at Chinnamanur, Velayuthampalayam and Thanippadi and UPHC, Jamunamathur.

Thus, Audit observed that significant number of HCFs lacked support services like dietary service, laundry service and mortuary service.

3.7.4 Availability of other hospital amenities

The IPHS Guidelines stipulate norms for availability of certain hospital amenities like infection control, power supply, drainage and sanitation, firefighting equipment, AMC, grievance and redressal mechanism, internal control and internal audit.

The availability of the above patient amenities in the sampled secondary care hospitals are given in **Appendix 3.21**.

While all the sampled DHQHs/TKHs and NTKHs had facilities for infection control[50], water supply, drainage and sanitation, firefighting equipment, internal control and internal audit, the HCFs had the following shortcomings:

- 24-hour power supply was not available in TKHs at Karai and Thandarampattu.
- Annual Maintenance Contract for equipment was not done in four[51] HCFs.
- None of the sampled HCFs maintained records for registering and monitoring grievance expressed by the patients. Thus, the higher authorities had no system to monitor the redressal of grievances. Although all HCFs replied that a Grievance/Complaint Redressal Mechanism was available, Audit found that the services available in the hospitals were only displayed and no HCF had displayed the rights of the patients.

[50] Hand washing facilities, Infection Control Team, Standard Operating Procedures, Safe injection practices etc.

[51] TKHs at Karai and Thandarampattu; NTKHs at Kavindapadi and Thirukkattupalli.

CHAPTER IV
AVAILABILITY OF DRUGS, MEDICINE, EQUIPMENT AND OTHER CONSUMABLES

CHAPTER IV

AVAILABILITY OF DRUGS, MEDICINE, EQUIPMENT AND OTHER CONSUMABLES

Tamil Nadu Medical Services Corporation Limited (TNMSC) is involved in procurement, testing, storage and distribution of drugs, medicine, surgical items, consumables, equipment, etc., to all Government HCFs in the State.

Several essential drugs and medicines were not procured by TNMSC, leading to non-availability of adequate treatment options in Government HCFs. Disruptions in supply chain management of Drugs and Medicines of TNMSC had impacted the availability of some medicines in sampled hospitals. Deficiencies continued to plague the Drug Distribution Management System (DDMS) of TNMSC, despite being pointed out in earlier Audit Reports. Large numbers of equipment were under disrepair despite availability of a system for Annual Maintenance Contract. Several newly procured medical equipment were not installed and commissioned for more than two years due to procurement without assessing the requirement.

4.1 Availability of essential drugs and consumables

IPHS Guidelines lists out the Drugs/lab reagents/other consumables that secondary care Hospitals[1] should stock to provide for delivery of minimum assured services.

The overall percentage of availability of drugs and consumables in the sampled Secondary care hospitals is given in **Table 4.1**.

Table 4.1: Percentage of availability of drugs and consumables in sampled Secondary Care Hospitals

Sampled Secondary Care Hospitals		Percentage of availability of Drugs and Consumables (In *per cent*)			
Type	Number of HCFs sampled	Below 25 *per cent*	26 to 50 *per cent*	51 to 75 *per cent*	Above 75 *per cent*
District Hospitals	5	*0*	*3*	*1*	*1*
Taluk Hospitals	6	*0*	*6*	*0*	*0*
Non-Taluk Hospitals	5	*0*	*5*	*0*	*0*
Total	**16**	***0***	***14***	***1***	***1***

(Source: Details furnished by the respective DHQHs/TKHs/NTKHs)

[1] District Hospitals and Sub-District/Sub-Divisional Hospitals.

While the category-wise details of the availability of Drugs, Lab Reagents, Consumables and Disposables in the sampled DHQHs[2] are given in **Appendix 4.1**, the details in respect of the sampled Sub-District/Sub-Divisional Hospitals (TKHs and NTKHs)[3] is given in **Appendix 4.2**.

Audit observed the following:

- Out of 16 secondary care hospitals sampled, only two[4] DHQHs had 75 *per cent* or above of the drugs and consumables listed in the IPHS guidelines.
- The remaining 14 hospitals had drugs and consumables ranging from 26 *per cent* to 49 *per cent* as per IPHS Guidelines.

4.2 Availability of AYUSH essential medicines in sampled HCFs

The Tamil Nadu Medicinal Plant Farms and Herbal Medicine Corporation Limited (TAMPCOL) manufactures, procures and supplies AYUSH medicines to all Institutions functioning under the Directorate of Indian Medicine and Homoeopathy, besides other Government Institutions and TAMPCOL's own sales outlets.

As of January 2024, Audit observed that while 14 sampled HCFs[5] (30 *per cent*) did not have any AYUSH drugs, 13 sampled HCFs[6] (28 *per cent*) had stock of Ayurvedic drugs. However, 19 sampled HCFs had stock of Siddha drugs.

4.3 Availability of Equipment in Secondary care Hospitals

IPHS Guidelines, 2012, provides detailed information on service norms for equipment[7] for District Hospitals[8] and Sub-District/Sub-Divisional Hospitals[9]. The Equipment Norms are worked out keeping in mind the recommended assured services the secondary care hospitals are expected to provide.

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2 As per IPHS Guidelines for District Hospitals (100-500 bedded), 2012.

3 As per IPHS Guidelines for Sub-District/Sub-Divisional Hospitals (31-100 bedded), 2012.

4 Cheyyar (75 *per cent*) and Perambalur (77 *per cent*).

5 (i) GMCH, Erode; (ii) DHQH, Cheyyar; (iii) Block PHC, Naducauvery; PHCs at (iv) Chakkarapalli, (v) Kaikalathur, (vi) Kurangani, (vii) Poondi, (viii) Sandavasal; Urban PHCs at (ix) Gobichettipalayam, (x) Karur Town, (xi) Kumbakonam (EVRM), (xii) Thanjavur (Kallukulam), (xiii) Theni (Bommayagoundanpatti), (xiv) Tiruvannamalai (Central).

6 DHQHs at (i) Kumbakonam, (ii) Perambalur, (iii) Periyakulam; (iv) TKH, Andipatti; NTKHs at (v) Chinnamanaur, (vi) Thanipadi; Block PHCs at (vii) Chennimalai, (viii) Chinnadharapuram, (ix) Modakuruchi, (x) Vettavalam; (xi) UPHC, Kadamalaigundu; (xii) PHC, Kadavur and (xiii) Urban PHC, Erode (Gandhiji Road).

7 For Imaging/X-ray, Maternity care, ENT, Eye, Dental, OT, Laboratory etc.

8 Separate norms for District Hospitals having bed strength of 100-200, 201-300 and 301-500.

9 Separate norms for Sub-District/Sub-Divisional Hospitals having bed strength of 31-50 and 51-100.

The overall percentage of availability of Equipment in the sampled Secondary care hospitals is given in **Table 4.2**.

Table 4.2: Percentage of availability of Equipment in sampled Secondary care Hospitals

Sampled Secondary care Hospitals		Percentage of availability of Equipment				
Type	Number of HCFs sampled	Below 25 *per cent*	26 to 50 *per cent*	51 to 75 *per cent*	Above 75 *per cent*	More than 100 *per cent*
District Hospitals	5	-	*1*	-	*3*	*1*
Taluk Hospitals	6	*1*	*2*	*2*	*1*	-
Non-Taluk Hospitals	3[10]	*1*	*2*	-	-	-
Total	**14**	***2***	***5***	***2***	***4***	***1***

(Source: Details furnished by the respective DHQHs/TKHs/NTKHs)

While the category-wise details of the availability of Equipment in the sampled DHQHs[11] are given in **Appendix 4.3**, the details in respect of the sampled[12] Sub-District/Sub-Divisional Hospitals (TKHs and NTKHs) is given in **Appendix 4.4**.

Audit observed that out of 14 sampled secondary care hospitals, the availability of equipment, as stipulated by IPHS norms, was below 50 *per cent* in seven[13] HCFs. The severe shortage of equipment could result in hampering of the assured services to the patients in various critical services like imaging, laboratory, obstetrics and gynecology, operation theatre etc.

4.4 Procurement of Drugs and Medicines

4.4.1 Non-procurement of Essential Drugs

TNMSC maintains a list of Essential Drugs, which must be kept in stock at its warehouses for supply to needy HCFs. The process of procurement and distribution of Essential Drugs is detailed in **Exhibit 4.1**.

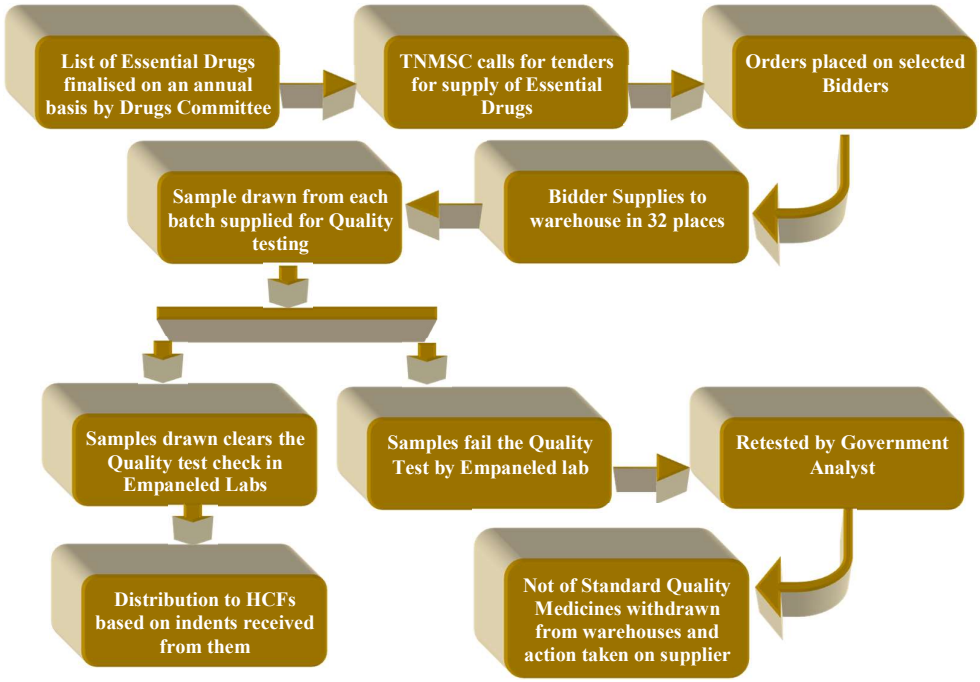
10 As the bed strength of NTKHs at Kavandapadi and Thirukkattupalli are only 30 and 26 respectively, the details of equipment in the two NTKHs have not been included.

11 As per IPHS Guidelines for District Hospitals (100-500 bedded), 2012.

12 As per IPHS Guidelines for Sub-District/Sub-Divisional Hospitals (31-100 bedded), 2012.

13 (i) DHQH, Kumbakonam (42 *per cent*); TKHs at (ii) Andipatti (9 *per cent*), (iii) Karai (46 *per cent*) and (iv) Thandarampattu (35 *per cent*); NTKHs at (v) Chinnamanur (50 *per cent*), (vi) Thanipadi (35 *per cent*) and (vii) Velayuthapalayam (17 *per cent*).

Exhibit 4.1 Process flow for procurement and distribution of Essential Drugs



(Source: TNMSC records)

It was seen that TNMSC was not procuring all the Essential Drugs as given in **Table 4.3**.

Table 4.3: Year-wise essential drugs procured by TNMSC

Year	Total number of Drugs in Essential Drug List	Total number of Essential Drugs procured	Percentage of procurement
2016-17	305	281	*92*
2017-18	314	307	*98*
2018-19	314	296	*94*
2019-20	315	305	*97*
2020-21	326	294	*90*

(Source: TNMSC data)

TNMSC had not procured certain important drugs like Rifampicin Cap IP 150 mg (procured only during 2017-18) used to treat tuberculosis, Adrenochrome Monosemicarbozonate Tab (not procured during 2019-20 and 2020-21) for treating bleeding and Benzyl Penicillin Inj IP (procured only during 2019-20) used for treating most wound infections. Chlorothalidone Tab 12.5 mg and 25 mg, used to treat Hypertension and Vildagliptin Tab 50 mg, used to treat Type 2 Diabetes Mellitus, were procured only during 2020-21.

Further analysis revealed that four of the above five drugs were indented by HCFs during the period and were not issued by TNMSC on account of non-availability. Also, in three instances relating to supply of Benzyl Penicillin

Inj IP 600 mg to HCFs, TNMSC issued no objection certificate to enable the HCFs to go for local procurement.

GoTN replied (August 2022) that all the drugs figuring in Essential Drug list need not be/could not be procured due to various reasons such as non-participation of the drug manufacturer, obsolete drugs, drugs not preferred by treating Physicians, banned by Central Licensing Authority etc. It was also stated that the HCFs could go for local procurement if needed. Even when the drugs were considered essential and the same were demanded by HCFs, TNMSC failed to procure all the drugs.

4.4.2 Non-supply and short-supply of drugs and medicines to hospitals

Drugs and medicines required for the HCFs were to be periodically indented to TNMSC warehouses. It was noticed that in MCH Thanjavur and DHQHs, Erode and Perambalur, indents were placed to TNMSC warehouses and the same were returned stating that those medicines were not available. During 2016-21, 95, 61 and 93 medicines indented by MCH Thanjavur and DHQHs, Erode and Perambalur respectively, were not supplied.

The TNMSC warehouse, Tiruvannamalai did not supply the full indented quantity of five[14] tablets to MCH, Tiruvannamalai. The quantity supplied fell short of the indent by 200 to 5,00,000 tablets, which resulted in local purchase of those medicines by the hospital. Similar issues were noticed in TKH, Karai, where there was short-supply of 26 drugs in 2020-21.

GoTN admitted (August 2022) that disruptions happen due to supply failures and replied that 10 *per cent* of the drug budget is retained at the institutional level for local purchase and alternate medicines were available with the HCFs.

The reply only exposed the overall inefficiency of the procurement process of TNMSC.

4.5 Drug Distribution Management System

TNMSC uses 'Drug Distribution Management System (DDMS)' for processing tenders, managing contracts and distribution of drugs, medicines, and other consumables. An IT Audit[15] of DDMS highlighted issues in the system-based controls in awarding contracts, quality control of procured store, issues in distribution, etc. Audit noticed that many of the issues already pointed were not addressed/resolved.

4.5.1 Deficiencies in tender processing system in DDMS

As per Drug Procurement Policy of TNMSC, the tender processing officers should ensure that the bids meet the tender requirements. Even though TNMSC used DDMS for processing tenders, procurements were also made manually as

[14] Amoxycillin 250 mg, Enalapril 250 mg, Glimipride, Griseofulvin and Metformin.

[15] Included in CAG's Audit Report on Public Sector Undertakings, Government of Tamil Nadu - Report No. 05 of 2017 (Paragraph Number 2.2).

the automation was incomplete which led to difficulty in monitoring as discussed below:

- In 26 out of the sampled 72 tenders, involving 353 tenderers, data pertaining to one or more mandatory documents such as proof of production capacity, turnover data, etc., were not captured in DDMS.
- In 274 instances, involving 38 tenders and 218 tenderers, the price bids were opened even though the remarks column indicated that the document submitted was incomplete.
- In 351 instances, involving 113 tenders and 170 tenderers, details of the Earnest Money Deposit were not captured.
- In 24 instances, involving 5 tenders and 14 tenderers, details of Security Deposit collected were not captured.

Thus, the data held in the system was incomplete and unreliable.

GoTN replied (August 2022) that the main purpose of DDMS module was drug stock distribution and monitoring only. It further stated that TNMSC is actively engaging with National Informatics Centre for switching over to online tenders.

The reply confirms the fact that DDMS is used partially and not used as a monitoring tool despite having provisions for capturing procurement process.

4.5.2 Discrepancies in data capture of 'Manufacturing Date'

Manufacturing date is an important field that must be captured in the system as the suppliers are expected to supply drugs and medicines within 30 days of manufacturing to have longer shelf life. Analysis of DDMS data disclosed that the manufacturing date of same batch of drugs was captured by different Warehouses erroneously as in 1,061 instances where the manufacturing date captured for the same batch of drugs was not the same. The difference ranged from (-) 1,248 days to (+) 7,305 days.

These wrong entries by the Warehouse Managers disabled the provision to check whether the supplier effected the supply within 30 days of manufacturing.

GoTN replied (August 2022) that such discrepancy will not occur in future and necessary validations will be incorporated at the input stage.

4.5.3 Supply of drugs with lesser shelf life

As per tender conditions, the tenderer should supply the product within 30/40 days[16] from the date of manufacture. In case the product is received after 30 days from date of manufacture and the product is not consumed before its expiry date, the supplier should replace the short expiry or expired quantity with fresh stock having longer shelf-life, otherwise the expired product will be returned to the supplier and the value equal to the cost of expired quantity will be recovered.

[16] 30/40 days of manufacturing in respect of Category 'A'/'B' drugs.

During 2016-21, 185 suppliers supplied 1,447 drugs which were manufactured much earlier than 30 days before the date of supply. Audit scrutiny revealed that such drugs and medicines costing ₹11.12 crore had expired while in stock, during 2016-21. Audit noticed that the suppliers had replaced the expired items only in 13 instances, of which 10 instances relate to period 2020-21 or later only. Thus, Audit observed that TNMSC failed to fix responsibility on the suppliers for belated supply.

GoTN replied (August 2022) that the condition could not be strictly adhered to owing to various reasons. Government further stated that TNMSC was proactively monitoring the incidents from 2021- 22 onwards.

4.5.4 Suppliers not blacklisted by system for less supply

As per Clause 13.4 (i) and (ii) of the tender, the supplier should supply at least 50 *per cent* of the ordered quantity within 45/60 days from date of Purchase Order (PO) and the balance quantity within 60/70 days from date of PO at the destinations mentioned in the PO for Category 'A'/Category 'B' drugs respectively. The order stands cancelled at the end of 90th/100th day from the issue of PO after levying of penalty on the value of unexecuted order as specified under Clause 18.3. Further, the tenderer shall also be liable to pay other penalties as specified under Clause 19. However, if such default occurs for three or more POs placed during the tender period, penal action like blacklisting should be enforced. Analysis of DDMS data disclosed that:

- A total of 123 suppliers, who did not supply 70 *per cent* of PO quantity even after 90 days of the PO and had defaulted more than twice, were not blacklisted.
- Suppliers of 2,144 POs did not supply goods, but the POs were not cancelled.
- A total of 845 POs were cancelled belatedly, up to 885 days from PO date.
- TNMSC makes emergency open market procurements if the supplier failed to fulfill the conditions of the PO. In such cases, the excess expenditure on emergency procurement will be recovered from the defaulting suppliers. During 2016-21, TNMSC incurred an additional expenditure of ₹1.47 crore due to suppliers' failure. DDMS did not capture details of recovery from the supplier.

Thus, it was observed that DDMS was not being used effectively to deal with defaulting suppliers, as all the features of DDMS were not being used.

GoTN stated (August 2022) that any drastic action of blacklisting the defaulting suppliers on non-delivery will affect availability of drugs to the institutions. The reply was untenable as such relaxation of tender conditions could lead to selective misuse and adversely impact transparency in the process.

4.6 Quality control

As per TNMSC's Quality Control (QC) procedures, samples of all batches of drugs and medicines are drawn and sent to accredited laboratories for testing and distribution of stock to HCFs start only after they pass the QC. Items that do not pass QC at the first analysis were to be frozen, and if the second analysis also prove that the item is sub-standard, then the item would be returned to the supplier.

4.6.1 Delay in drug distribution due to delayed QC tests

Scrutiny of DDMS data on QC, disclosed delay in distribution of medicines during 2016-21 due to the following reasons:

- As against the Manual provision to draw samples from warehouses within two days, in 3,332 out of 87,495 instances (3.8 *per cent*), the samples were sent with a delay of more than 10 days.
- Analytical Laboratories should furnish the test reports within eight days of receipt of the samples for Category-A[17] drugs. However, in 20,895 out of 1,24,596 instances during 2016-21, lab reports of such samples were delayed beyond eight days *plus* transit time.
- The delayed lifting of samples and delayed testing had cascading effects on supply of these drugs and medicines to HCFs.

GoTN replied (August 2022) that TNMSC regularly monitors this issue.

4.6.2 Analysis not done for stocks lying in the warehouse

With a view to ensure the quality of the drugs during the storage period, the QC Policy and Procedures provides for quality testing of samples drawn from the lots which are lying in the warehouse for more than six months.

Audit found that during 2016-21, in 13,922 cases, drugs lying in the warehouses for more than six months were not sent for quality testing. DDMS did not have a feature to alert the warehouse managers on this QC issue.

Thus, Audit observed that the Quality Control system was deficient.

GoTN replied (August 2022) that suitable provision in the software application will be created to sort this issue and to adhere with the QC Policy.

4.6.3 Non-blacklisting of suppliers of poor quality drugs and medicines

As per the QC Policy and tender conditions, if the drugs and medicines supplied by a particular supplier did not pass QC repeatedly, the drug supplied by the supplier should be blacklisted. During 2016-21, in 19 instances, drugs supplied by different suppliers failed in Government laboratories more than two times. Out of these 19 instances, the suppliers were not blacklisted in 14 instances (relating to 14 suppliers and 13 drugs), as given in **Appendix 4.5**.

[17] Category A - tablets, capsules, pessaries, ointments, powder, liquid oral preparations and other items.

It was also seen that the drugs supplied by several suppliers were returned from hospitals due to quality issues/complaints as given in **Table 4.4**.

Table 4.4: Quantity and value of drugs which failed in quality testing but not black listed

Sl. No.	Failed more than two times	Number of instances drugs returned from hospitals	Quantity	Amount (₹ in lakh)
1	Same Supplier, Same Drug	1,244	50,67,494	72.11
2	Same Tender, Same Supplier	4,048	1,80,27,784	260.91

(Source: Analysis of DDMS data)

TNMSC replied that suppliers were not blacklisted as penalty was imposed instead of blacklisting. GoTN replied (August 2022) that blacklisting is resorted only to penalise grave deficiencies. The blacklisting of any company without due consideration of their market share and supply channels will restrict procurement agency's capacity to seamlessly procure drugs and hence, is done based on case-to-case basis.

The fact, however, remained that the QC policy was not implemented scrupulously and the instances of failures in quality testing were very high in numbers.

4.6.4 Non-blacklisting of laboratories

As per tender conditions, the empanelled laboratories should be blacklisted for two years if there were variations between their analytical reports and the reports furnished by the Government Laboratory.

Although 46 empanelled laboratories had variations between their reports and the reports furnished by Government laboratories or other empanelled labs in 1,292 instances, it was seen that only two[18] laboratories were blacklisted. Periodical reviews were not conducted by TNMSC in respect of the above mentioned cases where results differed.

Audit observed that non-ensuring the quality of test reports of private empanelled laboratories could lead to supply of sub-standard drugs and medicines.

GoTN replied (August 2022) that two empanelled laboratories were blacklisted, and penalty was levied on one for furnishing deviated test reports.

4.6.5 Distribution of drugs after 'Stop Issue' order

If a drug fails in the quality test of the empanelled analytical Lab/Government Lab, 'Stop Issue' order is issued to all warehouses to stop issue of the drug to HCFs and to retrieve the quantity already issued to HCFs.

[18] (i) Edward Food Research and Analysis Centre, Hyderabad and (ii) M/s Shagun Testing Laboratories, Gurgaon, Haryana.

During 2016-21, the warehouses issued 15.92 lakh quantity of 17 drugs[19] worth ₹16.02 lakh in 520 instances to various HCFs across the State. Further scrutiny revealed that one drug *viz*., Inj Dexamethasone Sodium Phosphate alone was issued in 330 instances out of 520 instances.

Thus, lapses on the part of TNMSC had resulted in lifting of non-standard quality drugs for issue to the patients by HCFs.

GoTN replied (August 2022) that in cases where drugs are distributed even after stop order, disciplinary actions are taken against the concerned warehouses in-charge personnel.

Recommendation 5:

Government should direct TNMSC to ensure that drugs that fail the quality tests are not issued to HCFs/should be retrieved back from the HCFs. Further, the Suppliers of such drugs should be blacklisted as per the existing provisions.

4.7 Deficiencies in availability and utilisation of medical equipment

Based on the requirements furnished by the respective Directorates, TNMSC procures medical equipment using funds from the State as well as NHM. TNMSC also arranges for Annual Maintenance Contract (AMC) of the medical equipment.

4.7.1 Medical equipment under repair

In the sampled hospitals large number of medical equipment were kept unutilised due to repair, as given in **Appendix 4.6**.

TNMSC should arrange for AMC for medical equipment after the warranty period, based on list of such equipment furnished by the heads of HCFs. The Bio-Medical Engineer, appointed by TNMSC on contract basis in every district, must monitor the maintenance of medical equipment.

Audit found that the equipment did not have a subsisting AMC. The Heads of the sampled hospitals did not monitor the performance of Bio-Medical Engineers and failed to furnish the list of equipment to TNMSC for arranging AMC.

GoTN furnished (August 2022) a detailed reply indicating the action taken/proposed to be taken in respect of the equipment pointed out by Audit. The fact, however, remained that the system of AMC and the work of Bio-Medical Engineers needed careful monitoring.

[19] (i) Syp Ambroxil; (ii) Tab Amitriptyline (25 mg); (iii) Cap Amoxycillin 250 mg; (iv) Black Disinfectant Fluid (Phenyl); (v) Tab Calcium Lactate 300 mg; (vi) Tab Carbimazole 5 mg; (vii) Inj Cefotaxime Sodium 2.5 mg; (viii) Tab Clopidogrel 75 mg; (ix) Cap Cyclosporin 50 mg; (x) Inj Dexamethasone Sodium Phosphate; (xi) Tab Dexamethasone 0.5 mg; (xii) Syp Iron and Folic Acid; (xiii) Inj Paracetamol 150 mg/ml; (xiv) Povidone Iodine Ointment; (xv) Inj Sodium Chloride 500 ml; (xvi) Inj Thiopentone Sodium 500 mg and (xvii) Tab Verapamil 40 mg.

4.7.2 Unnecessary procurement and idling of medical equipment for OT/ICU

In two sampled hospitals, medical equipment costing ₹23.04 lakh, were kept idle: some in unpacked conditions for long periods, as given in **Table 4.5**.

Table 4.5: Major items of equipment kept idle in sampled hospitals

Name of HCF	Name of equipment	Year of procurement	Cost (₹)	Status
GMCH, Tiruvannamalai	Fibre Optic Bronchoscope	2017	7,64,500	Kept in Main Store
	Cystoscope (Paed)	2019	6,79,396	
	Sigmoidoscope	2019	8,35,520	
TKH, Andipatti	Cryotherapy unit[20]	2012	24,331	Not used since it needs trained technician and liquid nitrogen which is not available.

(Source: Stock Register and JPV report)

Thus, Audit observed that there were serious disconnect between the HCFs and the TNMSC in assessing the requirement and procuring only the required equipment resulting in procurement of unnecessary equipment.

Recommendation 6:

Government should ensure that TNMSC takes ownership of maintenance activity of all medical equipment supplied to all healthcare facilities and update the inventory based on annual physical verification.

4.8 Deficiencies in diagnostic equipment

As per IPHS norms, ECG, X-ray and Ultrasonogram (USG) are essential services for Sub District/Sub Divisional Hospitals and District Hospitals. These equipment were supplied to all class of Government HCFs, right from PHC level. Audit of availability and utilisation of these equipment disclosed the following lapses.

4.8.1 Non-installation and commissioning of new X-ray machine

In DHQH, Perambalur, four X-ray machines[21] procured between 2003 and 2012 were not installed for several years. It was reported that they were not installed for want of space and services were rendered with the available digital X-ray unit. Audit observed that the Hospital authorities failed to install and commission these X-ray units or to transfer them to other needy hospitals.

Similarly, in six of the nine sampled PHCs in Erode and Tiruvannamalai Districts, the X-ray units supplied between 2011 and 2020 were not installed

[20] Used to destroy precancerous conditions/lesions.

[21] Two conventional X-ray-Philips make (2012), one Allenger Fixed X-ray 100 MA and one Stallion Mobile X-ray 520 MA.

and commissioned. The Medical Officers of the PHCs informed that these equipment were not commissioned for want of X-ray Technicians.

The sampled HCFs did not maintain proper records indicating the cost of these units. Hence, Audit worked out that the estimated cost of X-ray units lying uninstalled in the sampled HCFs, based on current rates, as ₹56.25 lakh (approximate).

Thus, procurement of X-ray units without assessing the requirement, availability of site and technicians beforehand itself resulted in idling of the equipment and consequent failure to provide radiological services to the needy patients.

4.8.2 Non-repairing of existing X-ray machine

In seven of the 47 sampled HCFs, six X-ray units were not functional due to non-availability of spares and not repairing the same, as given in **Table 4.6**.

Table 4.6: X-ray machines kept idle in sampled hospitals

Name of the Hospital	Number of units non-functional	Date of installation	Date from which not functioning	Number of patients referred to other hospitals
GMCH, Tiruvannamalai	1	NA	NA	Nil
DHQH, Kumbakonam	1	NA	November 2021	Nil
DHQH, Theni	1	NA	18-03-2020	Nil
TKH, Andipatti	1	NA	August, 2020[22]	Nil
TKH, Thandarampattu	1	October 2016	October 2016	--
NTKH, Kavandapadi	1	1996	November 2020	157

(Source: JPV and details furnished by respective HCFs)

It was observed that:

- All except NTKH, Kavandapadi had alternative X-ray units to handle the diagnostic requirements, hence the existing machines were not repaired on priority.
- No action was taken to transfer the units to other hospitals if they were not required, nor the older ones were condemned and auctioned off if they were beyond repair.

4.8.3 Lapses in ensuring safety of X-ray machines

X-rays are hazardous radiations and hence according to Atomic Energy (Radiation Protection) Rules 2004, installation and operation of X-ray machines require licensing by GoI's Atomic Energy Regulatory Board (AERB).

Audit found that 19 X-ray units installed in 22 sampled HCFs were functioning without valid license **(Appendix 4.7)**. Further, in 16 of the sampled HCFs, the X-ray Technicians were not provided with the Thermoluminescent Dosimeter Badge, which is required to be worn by them to monitor personal radiation level.

[22] During JPV (January 2024), it was ascertained that the machine is in the process of being condemned.

Thus, Audit observed that the significant number of sampled HCFs did not attach due importance to safety protocols, exposing the staff as well as the patients to the hazards of X-ray radiations.

GoTN replied (August 2022) that the HCFs concerned had applied for AERB licenses and Thermoluminescent Dosimeter badges were also being arranged. However, the fact remained that these machines were being operated without following the mandatory safety procedures.

4.8.4 Non-functioning of ECG and USG equipment

In seven out of the 47 sampled HCFs, 11 ECG machines were kept idle due to repair. As a result, three of the sampled HCFs referred 660 patients to nearby hospitals during 2020-21 for diagnosis; one hospital had alternative ECG machine(s) and no record on patient referral was maintained by five other HCFs **(Appendix 4.8)**.

Similarly, in eight out of the 47 sampled HCFs, eight USG machines were kept idle due to disrepair. As a result, two of the sampled HCFs (APHC, Kadavur and UPHC II, B K Patti) referred 2,739 patients to nearby hospitals during 2020-21 for diagnosis; one hospital had alternative USG machine(s) and no record on patient referral was maintained by five other HCFs **(Appendix 4.8)**.

ECG reports are used to diagnose cardiac ailments. USGs are frequently used to check pregnant mothers and referring them to other hospitals due to non-functioning of the available USG would amount to serious deficiency in prenatal service.

GoTN has furnished (August 2022) a detailed reply on the action taken/proposed to be taken in respect of the equipment pointed out by Audit. The fact, however, remained that significant number of ECG and USG equipment remained unutilised impacting service delivery.

Recommendation 7:

Government should ensure that medical equipment like X-ray machines, ECG/USG machines etc., are procured only after ascertaining the availability of infrastructure to house the equipment and technicians to operate/service them when under repair.

CHAPTER V
HEALTHCARE INFRASTRUCTURE

CHAPTER V

HEALTHCARE INFRASTRUCTURE

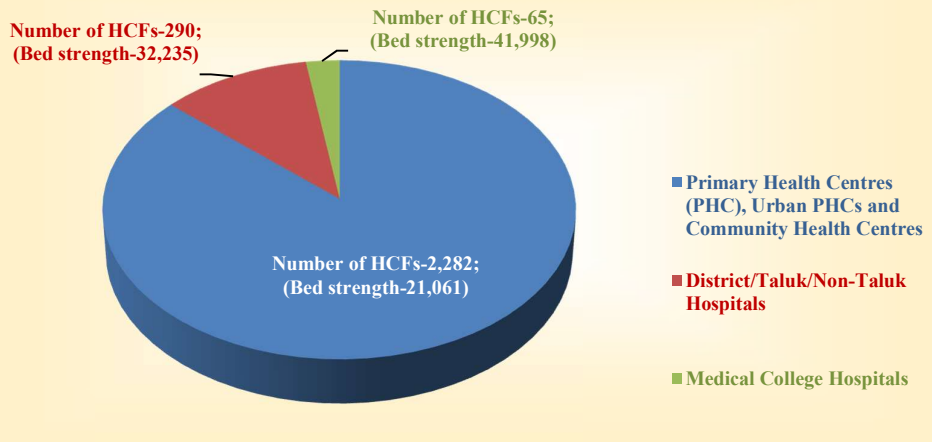
Primary healthcare in urban areas suffered for want of adequate number of urban PHCs. Despite an accelerated effort to increase the number of urban PHCs during 2016-22, against the requirement of 810 urban PHCs, the State had only 463. Thus, the primary healthcare in urban area was a matter of concern. Secondary and tertiary healthcare facilities did not have adequate ICU beds and operation theatres. Availability of hospital beds in Government HCFs was skewed across different districts of the State, with higher bed-population ratio in urban districts and lower in predominantly rural districts. Poor quality of buildings and non-availability of ramps in the PHCs of the sampled districts and non-availability of functional lifts in bigger hospitals were matters of concern. Over 50 *per cent* of the HCFs did not have structural stability certificates nor did they have the mandatory Disaster Management Plan. Abnormal delays in delivery and implementation of HMIS 2.0, the IT backbone of HCFs and poor response of doctors and staff for automation, had resulted in non-achievement of the objectives of computerisation.

5.1 Government Healthcare facilities in the State

5.1.1 Availability of hospitals and PHCs

The number of Government HCFs and their bed strength available in the State is given in **Exhibit 5.1**. The district wise requirement and availability of PHCs as per prescribed IPHS norms, are given in **Appendix 5.1**. The geographical distribution on rural PHCs and secondary care hospitals in the State map is given in **Exhibits 5.2** and **5.3** respectively.

Exhibit 5.1: Number of Government HCFs in the State



(Source: Performance Budget, 2021-22)

Exhibit 5.2: Geographical distribution of Rural PHCs

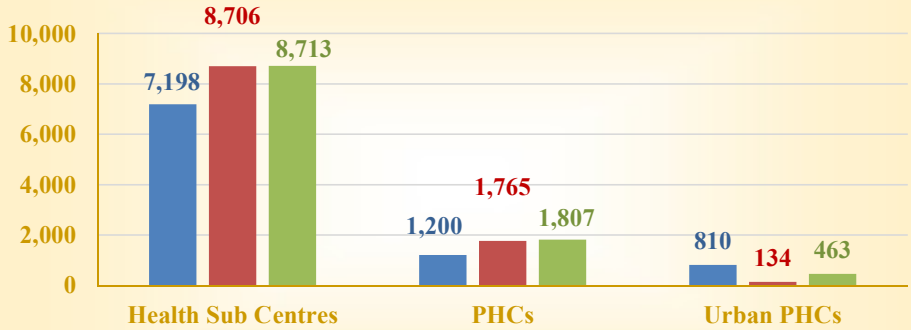
* Urban PHCs

(Figures in bracket indicate Required/Actual PHCs.)

Exhibit 5.3: Geographical distribution of Secondary care Hospitals

IPHS prescribed a norm of one Health Sub Centre for every 5,000 population, one PHC for every 30,000 population in rural areas and one urban PHC for every 50,000 population in urban areas. The requirement and availability of these Healthcare facilities in the State during the Audit period is given in **Exhibit 5.4**.

Exhibit 5.4: Requirement and availability of Health Sub Centres, PHCs and Urban PHCs



(Source: Data furnished by DPH)

Audit found that the number of PHCs in rural areas were more than the prescribed IPHS norms and 42 new PHCs[1] and 326 new Urban PHCs were added during the Audit period. However, the number of Urban PHCs as of March 2022 was only 463, against the requirement of 810 for the total population of 4.05 crore in the urban areas of the State.

Audit also found that the seven sampled Urban PHCs referred 3,763 patients to higher medical institutions due to lack of basic facilities to treat them. Audit observed that as per a survey[2] by the Ministry of Health and Family Welfare, the out-of-pocket expenditure by patients on two crucial services of PHCs *viz*., antenatal care and childbirth was higher in the State compared to national average[3]. The shortfall in Urban PHCs could be the reason for the higher than national average 'out-of-pocket' expenses on medical care in urban areas.

5.1.2 Government Medical Colleges

The Government Medical Colleges (GMC) in the State function under the Directorate of Medical Education. The Director of Medical Education is also responsible for the administration of the Government Medical Colleges, the Tertiary care hospitals and Super Speciality Hospitals attached to the Directorate.

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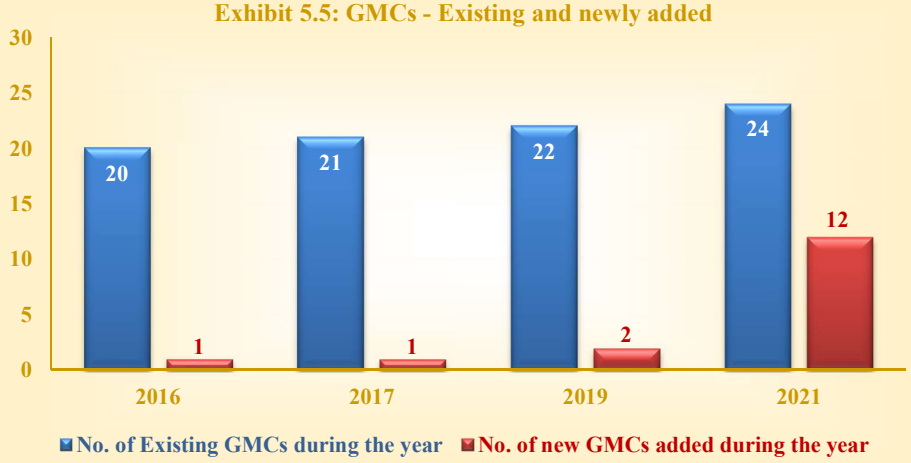
1 The number of PHCs during 2022-23 is 1,807 as compared with 1,765 PHCs during 2016-17.

2 Published in 2014 by the 'National Health Systems Resource Centre' from a state wise analysis of the data collected in the Health and Morbidity Survey 2014, Health and Morbidity Survey 2004 and Consumer Expenditure Survey 2011 by the National Sample Survey Office (NSSO).

3 ₹14,213 in the State against all India average of ₹11,093 for childbirth and ₹6,901 in the State against ₹5,727 at all India level for antenatal care.

As of March 2022, there are 36 GMCs in the State with an annual intake capacity of 5,050 of MBBS seats, the details of which are given in **Appendix 2.1**. During the period 2016-22, 16 GMCs were added[4] to the existing GMCs as given in **Exhibit 5.5**.

Exhibit 5.5: GMCs - Existing and newly added



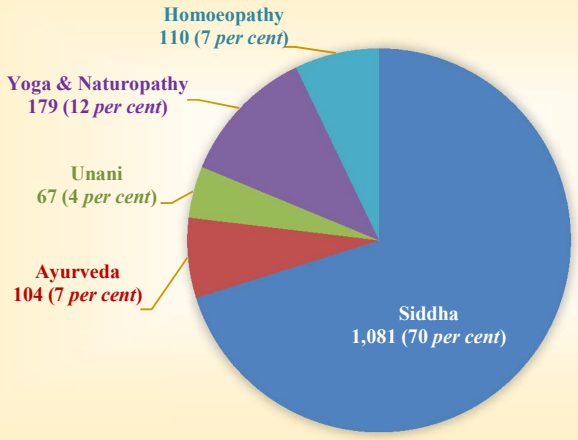
(Source: Details furnished by DME)

5.2 Government Healthcare facilities under AYUSH

5.2.1 Directorate of Indian Medicine and Homoeopathy

The Directorate of Indian Medicine and Homoeopathy (DIMH) provides healthcare services through the Indian Systems of Medicine and Homeopathy (ISMH)[5] through its 1,541 medical centres, as given in **Exhibit 5.6** and **Appendix 5.2**.

Exhibit 5.6: Number of ISMH medical centres in the state



(Source: Policy Note 2023-24)

4 IRT Perundurai and Raja Muthaiah Medical College, Chidambaram was taken over by the Government in 2019 and 2021 respectively.

5 The systems of traditional medicine such as Siddha, Ayurveda, Unani, Yoga and Naturopathy and Homoeopathy.

A Performance Audit on 'Provision of Healthcare Services and Medical Education through Indian Systems of Medicine' was included in the CAG's Audit Report[6] (General and Social Sector) for the year ended March 2018. The significant audit observations were related to delays in procurement of equipment by TAMPCOL and State AYUSH Society; shortage of manpower in ISM wings; short production of ISM medicines by TAMPCOL due to inadequate provision of funds; shortage of staff in drug testing laboratory and non-commencement of Post Graduate courses in ISM by the Ayurveda, Unani and Homoeopathy colleges of GoTN.

5.2.1.1 ISM Medical Colleges

As of March 2023, there are seven Government ISM Colleges and 44 Self-financing colleges in Tamil Nadu (**Table 5.1**). The details of Government ISM colleges are given in **Appendix 5.3**.

Table 5.1: Details of ISM colleges in the State

Number of ISM colleges	Siddha	Ayurveda	Unani	Yoga and Naturopathy	Homoeo-pathy	Total
Government	2	1	1	2	1	7
Self-financing	11	6	0	16	11	44
Total	**13**	**7**	**1**	**18**	**12**	**51**

(Source: Policy Note 2023-24)

5.2.1.2 Inpatient facilities in ISM and Homoeopathy Hospitals

As of March 2023, inpatient services are provided in the following HCFs:

- A total of 1,210 beds in the hospitals attached to the Government ISM Medical Colleges (**Appendix 5.3**).
- Twenty five bedded Siddha wards in six[7] HCFs; sixteen bedded and fifteen bedded Siddha wards in ten[8] HCFs and six[9] HCFs respectively.
- Fifty bedded (Siddha-25 and Yoga and Naturopathy-25 each) integrated Hospitals in Theni and Tiruvannamalai districts. But these integrated hospitals have not been commissioned, as commented in **Paragraph 5.3.1.1**.
- Further, in view of the co-location policy of GoTN, ISMH treatment facilities are also made available in Allopathic Medical College Hospitals[10], DHQHs, TKHs, NTKHs and PHCs.

6 Paragraph 2.2 of Report No. 1 of 2020 - Government of Tamil Nadu.
7 Government Pentland Hospital, Vellore and in DHQHs at Dindigul, Erode, Kancheepuram, Nagapattinam and Tiruppur.
8 DHQHs at Mettur, Namakkal, Nagercoil, Karur, Kumbakonam, Thiruvarur, Tiruchirappalli, Sivagangai, Villupuram and Virudhunagar.
9 DHQHs at Cuddalore, Pennagaram, Ramanathapuram and Thoothukudi; TKHs in Chidambaram, Cuddalore District and Kadayanallur, Tenkasi District.
10 Including Coimbatore Medical College and ESI Hospital, Multi Super Specialty Hospital, Omandurar, Government Estate, Chennai.

- In the State, a total of 1,541 ISMH centres are operational which are funded by the State, NHM and AYUSH schemes, the details of which are given in **Appendix 5.2**.

5.3 Infrastructure availability

5.3.1 Building Infrastructure

5.3.1.1 Non-commissioning of buildings

- GoTN issued (February 2018) orders for setting up of integrated 50 bedded Siddha hospitals at a total cost of ₹13.83 crore in Theni and Tiruvannamalai. The constructions were completed in September 2020 and February 2020 respectively. However, as of December 2021, the buildings were not put to use due to non-availability of equipment and manpower. Failure to take effective action to commission the buildings by sanctioning medical officers, staff and required equipment resulted in idling of the buildings, constructed at a cost of ₹13.83 crore, for more than two years[11].

- In UPHC, Kadamalaigundu, a 'Birth Waiting Room' constructed at a cost of ₹20 lakh and inaugurated in August 2016, for antenatal mothers from hilly areas, especially the high-risk cases brought prior to the expected date of delivery, is not functioning. As of January 2024, the building is being used as storage room for medical/cleaning materials.

5.3.1.2 Hospital functioning in dilapidated buildings

Proper upkeep of hospital buildings is critical to ensure availability of a safe, clean and conducive environment to the patients, public and hospital staff. It was noticed that hospitals/PHC were functioning in dilapidated buildings endangering the life of patients. The deficiencies are given in **Table 5.2** and illustrated in **Exhibits 5.7** and **5.8**.

Table 5.2: Deficiencies in sampled hospital/PHC buildings

District	Hospital/PHC	Deficiency
Erode	UPHC, Chennimalai	In Ophthalmic room of the PHC, the roof was in a damaged condition.
Tiruvannamalai	NTKH, Thanipadi	There were cracks in the 46 year old building. Water seepage on the walls and in roof. Structural stability certificate was not obtained for the building.
	UPHC, Karapattu	Water leakage in the building accommodating Injection room, OPD, Pharmacy, Laboratory.

(Source: Joint Physical Verification)

[11] During JPV in January 2024, it was seen that the building in Tiruvannamalai, now called as 'Integrated AYUSH Hospital' was inaugurated by the Hon'ble Chief Minister in August 2023. The Siddha and Yoga and Naturopathy Wings, which were functioning at GMCH, Tiruvannamalai, were shifted to the new building and OPD services are being offered since its inauguration.

Exhibit 5.7: Water seepage at non-Taluk hospital, Thanipadi

Exhibit 5.8: Damaged Roof at UPHC, Chennimalai

(Source: Joint Physical Verification)

The buildings of HCFs with seepage/leakage/roof damaged carried the risk of contamination of the physical environment and endangered safety of patients and staff.

5.3.1.3 Hospital buildings without compound wall

Peripheral walls are required for HCFs for physical protection of buildings, land, patients and staff. It was, however, seen that there were no compound walls in one hospital[12] and eight PHC[13] out of the sampled 47 HCFs.

Thus, the safety and security of the patients' belongings and the assets were not ensured in the above hospitals/PHCs.

5.3.1.4 Buildings without ramp facility

As per IPHS norms and NHM Assessor's Guide Book, ramp facility should be provided in the HCFs for easy access to the aged and physically challenged patients. It was noticed that ramp facilities were not provided in two hospitals[14] out of 21 sampled hospitals and in three PHCs[15] out of 29 sampled PHCs resulting in possible hardship to the aged/physically challenged patients.

5.3.1.5 Lifts in hospital buildings

Lifts are essential in hospital for secure movement of patients, patient beds, equipment and for medical staff. Audit observed the following deficiencies in the three out of five sampled GMCHs, as shown in **Table 5.3**.

12 TKH, Thandarampattu.

13 BPHCs at Nammiyampattu and Sivagiri; UPHCs at Ammapalayam and Janumamarathur; PHCs at Chakkarapalli, Poondi and Santhavasal; APHC Kadavur.

14 GMCH Thanjavur (Pediatrics building) and TKH, Thandarampattu (Siddha Wing).

15 BPHCs at Modakuruchi (Siddha Wing) and Sivagiri; PHC, Poondi.

Table 5.3: Deficiencies noticed in functioning of lifts in sampled hospitals

Name of the GMCH	Available/Not available	Deficiency noticed	Impact
GMCH, Erode	Available, but not functioning from December 2021.	AMC was not renewed from July 2020 and no action taken to repair the lifts.	Patients and hospital staff were forced to use the stairs.
GMCH, Thanjavur	Not available	Due to non-allotment of funds.	
GMCH, Theni	Available, but not functioning at Central Sterile Supply Department (CSSD)	Due to damaged condition	
	Available	Out of 8 lifts, 6 lifts are operated without a valid license.	Safety of the patients and others are compromised.

(Source: Joint Physical Verification)

5.3.1.6 Structural stability certificate and Disaster Management Plan

Structural stability certificate, issued by Public Works Department (PWD), confirms the stability and fitness of the building for occupation and compliance with the provisions of National Building Code, 2016. The structural stability certificate so obtained should be renewed every three years.

NHM Assessor's Guidebook envisages that in each hospital, Standard Operating Procedure (SOP) for disaster management should be available and disaster management committee should be constituted to review the plan periodically.

Audit noticed that:

- Fourteen sampled hospitals (67 *per cent*) and 14 sampled PHCs (54 *per cent*) did not have structural stability certificate.
- None[16] of the sampled HCFs had a Disaster Management Plan, which would affect their preparedness to impacts of disasters.
- Six sampled hospitals (29 *per cent*) and 11 sampled PHCs (42 *per cent*) did not have fire safety certificate for their buildings.

The HCFs without structural stability certificate, disaster management plan and fire safety certificate may endanger the life of the patients and staff.

5.3.1.7 Appearance and upkeep of sampled health institutions

The IPHS guidelines for District/Sub-District/Sub-Divisional hospitals provides for availability and maintenance of adequate physical infrastructure. The availability of certain key aspects of physical infrastructure as per IPHS norms, in the sampled DHQHs/TKHs are given in **Table 5.4**.

[16] Except MCH Tiruvannamalai and TKH, Bhavani.

Table 5.4: Appearance and up-keep in sampled Health institutions

Required (IPHS norms)	Erode		Ka-rur	Perambalur		Thanjavur		Theni		Tiruvanna-malai	
	DH QH	TKH	TKH	DH QH	TKH	DH QH	TKH	DH QH	TKH	DH QH	TKH
Environmental friendly features[17]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Circulation areas[18]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Disaster prevention measures[19]	Yes	No	No	Yes	No	Yes	No	No	No	Yes	No
Firefighting equipment	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

(Source: Details furnished by the sampled hospitals)

Thus, the availability of physical infrastructure in the District/Sub-District/ Sub-Divisional hospitals was quite satisfactory with reference to IPHS norms.

5.3.2 Availability and maintenance of residential accommodation in sampled HCFs

In the sampled 47 HCFs, the residential accommodation/quarters were available only in 26 (55 *per cent*) HCFs. The availability and maintenance of residential accommodation/quarters in the sampled districts is given in **Table 5.5**.

Table 5.5: Availability and maintenance of residential accommodation in sampled Districts

Sl. No.	District	Number of sampled HCFs	Residential accommodation/Quarters			
			Available	Occupied	Under repair	Vacant
1	Erode	6	197	100	71	26
2	Karur	3	82	72	3	7
3	Perambalur	1	10	7	3	0
4	Thanjavur	4	64	29	8	27
5	Theni	6	114	103	5	6
6	Tiruvannamalai	6	21	10	2	9
Total		**26**	**488**	**321**	**92**	**75**
Percentage of Occupancy/Repair and Vacancy				***66***	***19***	***15***

(Source: Details furnished by the respective HCFs)

Audit observed the following:

- In TKH, Manmangalam, the residential quarters were used for Office purposes without obtaining any orders from the competent authority.

17 Rain water harvesting, solar energy use and use of energy-efficient bulbs/ equipment should be encouraged. Provision for horticulture services including herbal garden.

18 Corridors, lifts, ramps, staircase and other common spaces etc. The flooring should be anti-skid and non-slippery.

19 Earthquake proof measures - structural and non-structural, firefighting equipment-fire extinguishers, sand buckets, etc., to be available and maintained to be readily available.

- In NTKH, Thanipadi, one quarter has been under repair for around three years.
- In BPHC, Chennimalai, all the four quarters which are shown as 'under repair', are beyond any economical repair. Hence, proposals have been sent to the competent authority for their condemnation.
- In BPHC, Vallam, all the seven quarters which are shown as 'under repair', are completely damaged.
- In PHC, Kurangani, a residential quarter has been unoccupied since its completion in 2020-21.

5.4 Availability of beds in the Healthcare Facilities

5.4.1 Availability of beds in the sampled Healthcare Facilities

The authorized bed strength and the available beds in all the sampled HCFs during the year 2021-22 is given in **Appendix 5.4**. Out of the 47 sampled HCFs, only three HCFs have a bed strength less than that of the sanctioned bed strength, as shown in **Table 5.6**.

Table 5.6: Sampled HCFs having deficient beds

Name of the sampled HCF	Authorised Bed Strength	Beds available	Deficit	
			In number	In *per cent*
TKH, Karai	60	36	24	*40*
Block PHC, Naducauvery	30	23	7	*23*
PHC, Kurangani	6	4	2	*33*

(Source: Details furnished by the respective HCFs)

Audit observed the following:

- All the sampled MCHs have beds in excess to that of the sanctioned bed strength, the excess ranging from 12 beds in Thanjavur to 570 beds in Erode.
- In TKH, Karai, the deficit in bed strength is due to lack of space to accommodate the authorized bed strength of 60 beds.
- In BPHC, Naducauvery, the deficit of seven beds is due to damaged beds.
- In PHC, Kaikalathur, although six beds are available, only two are being used due to insufficient space.

5.4.2 Skewed availability of inpatient beds

Government HCFs in the State had a total of 95,294 beds, which worked out to 1.32 beds per 1,000 population[20]. Analysis of inpatient bed availability in different districts revealed that the availability was not uniform throughout the State; it ranged from 0.5 beds per 1,000 population in Tiruvallur District to

[20] The Bhore Committee Report, 1946 recommended one bed for every 1,000 population which was to be increased incrementally. The National Health Policy, 2017 recommends two beds per 1,000 population.

3.3 beds per 1,000 population in Chennai District. While 12 districts had less than one bed per 1,000 population in Government HCFs, 26 others had more than one bed per 1,000 population as shown in **Exhibit 5.9**. The availability of beds in all the DHQHs in the State, for the period 2016-22, is given in **Appendix 5.5**.

Exhibit 5.9: District-wise availability of beds with population

* Chart depicts all districts excluding Chennai

(Source: Data furnished by DME, DPH and DMRHS)

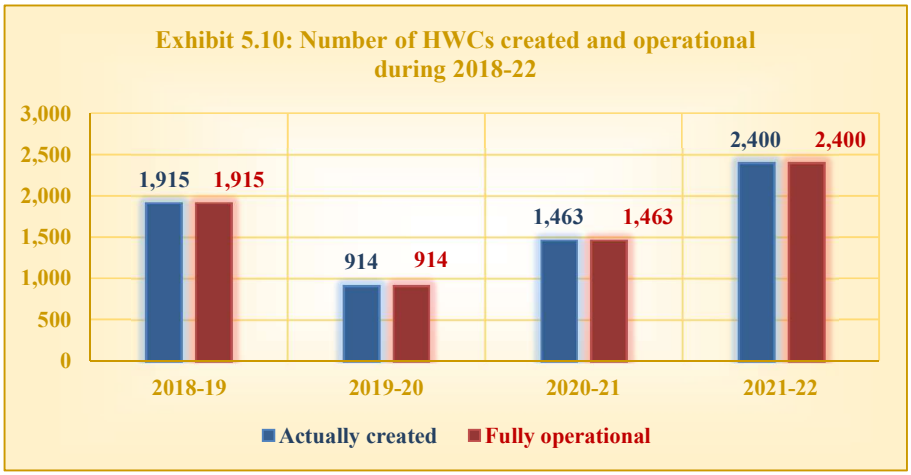
The disparity in bed strength was a matter of concern as the local population would be forced to travel to distant places or approach private HCFs for medical treatment.

5.5 Operationalisation of Health and Wellness Centres

To ensure delivery of Comprehensive Primary Healthcare services, GoI envisaged conversion of existing Sub Health Centres covering a population of 3,000 to 5,000, to Health and Wellness Centres (HWC), with the principle being 'time to care'- to be no more than 30 minutes.

As per the GoI's orders (2018-19), GoTN has been transforming the existing Health Sub-centres (HSCs) and Primary Health Centres (PHCs) as Health and Wellness Centres (HWCs) with the support of GoI through NHM-TN. Accordingly, as of March 2022, a total of 6,692 HWCs, providing 12 comprehensive package of services[21], have been created and are fully operational, the details of which are given in **Exhibit 5.10**.

[21] Preventive, Promotive, Curative, Rehabilitative and Palliative care related to RMNCH+A, Communicable diseases, Non-communicable diseases, Ophthalmology, ENT, Dental, Mental, Geriatric care, treatment for acute simple medical conditions and emergency and trauma services.



(Source: Details furnished by DPH)

In the sampled districts, a total of 1,089 HWCs have been created during 2018-22 and are fully operational. Out of these HWCs, 41 Medical Officers (MOs) have been posted in 41 Urban HWCs. The details of HWCs created and MOs posted are given in **Table 5.7**.

Table 5.7: Creation of HWCs in sampled districts during 2018-22

Name of the District	Target	Fully operational	Whether MOs posted (UHWC)
Erode	213	213	18
Karur	141	141	4
Perambalur	95	95	1
Thanjavur	208	208	10
Theni	135	135	4
Tiruvannamalai	297	297	4
Total	**1,089**	**1,089**	**41**

(Source: Details furnished by DPH)

5.6 Status of new construction and upgradation works

The funds from the State Budget for undertaking new constructions and upgradation of all existing works in the HFW Department are allocated towards civil works being undertaken by PWD. The details of works carried out in the HFW Department during the period 2016-22 is given in **Table 5.8**.

Table 5.8: Details of Works carried out during 2016-22

Sl. No.	Directorate	Number of Works					
		Sanctioned	Total Estimated cost (₹ in crore)	Completed	In progress	Yet to be taken up	Abandoned
1	Directorate of Medical Education	60	5,610.52	46	14	-	-
2	Directorate of Medical and Rural Health Services	9	132.96	8	1	-	-
3	Directorate of Public Health and Preventive Medicine	846	246.23	699	98	36	13
4	State AYUSH Society	335	NA	293	42	-	-
	Total	**1,250**	**5,989.71**	**1,046**	**155**	**36**	**13**

(Source: Details furnished by the respective Directorates)

As seen from **Table 5.8**, out of a total of 1,250 sanctioned works during 2016-22, 1,046 works (84 *per cent*) have been completed as of January 2024.

5.7 Unfruitful expenditure on salaries paid to Dean of a non-existent college/hospital

In June 2008, GoTN issued orders for starting a new Government Medical College at Perambalur with an annual intake of 100 MBBS Students. Administrative sanction was accorded in July 2010 for construction of buildings at a cost of ₹82.34 crore. GoTN also approved the estimates for construction of buildings for the proposed college. One post of Dean was also created and filled up in 2010 to oversee the establishment of the proposed new Medical College at Perambalur.

Government, however, decided (November 2011) to drop construction of the new Medical College at Perambalur in the existing site, as the land was under certain legal issues. It was also seen that GoTN had not issued any clear direction on finding an alternate site for the proposed Medical College.

Although the proposal to establish a Medical College at Perambalur was shelved in 2011 itself, the post of Dean of the non-existent Medical College was continued since 2010 to till date (December 2021). A total of eight persons had held the post of Dean during 2010-21, and ₹1.42 crore was incurred on the pay and allowances of Deans who supposedly worked for establishing the Medical College during this period.

In September 2022, GoTN issued orders for creating a post of Special Officer-cum-Dean to the Government Medical College, Cuddalore district by surrendering the post of Special Officer-cum-Dean sanctioned to the Government Perambalur Medical College, Perambalur.

Audit observed that failure of DME and GoTN to take a final call on the proposed new Medical College and the attached tertiary hospital had resulted in an unfruitful expenditure of ₹1.42 crore on salaries alone.

5.8 Non-implementation of HMIS

In August 2005, GoTN decided to implement the Health Management Information System (HMIS) at a cost of ₹114.35 crore to deliver evidence-based healthcare to the public. CAG's Audit Report (General and Social Sector) for the year ending 31 March 2012, brought out several deficiencies in the system. However, the deficiencies pointed out were not rectified and HMIS was not implemented in all HCFs as of March 2022.

In 2017, GoTN proposed to revamp the system as HMIS 2.0 and the project was awarded (December 2017) to Oasis Cybernetics Pvt. Ltd. (System Integrator) at a cost of ₹17.36 crore with targeted implementation by August 2018. Due to slow progress of work, the contract was terminated in December 2019, and

restarted with the same firm in May 2020. The work was to be completed in six months.

Out of 71 modules proposed in HMIS 2.0, 67 modules (94 *per cent*) like patient registration module, clinical module, prescription module etc., were not completed. Due to this, HMIS 2.0 is not fully functional as of August 2022. GoTN had incurred a total expenditure of ₹20.61 crore towards various activities like server hosting charges, AMC for hardware, etc.

Audit scrutiny of some of the modules in HMIS 2.0 revealed the following:

5.8.1 Biomedical Waste Management Module

Data entry was incomplete. No data was entered after April 2021. The data on biomedical waste disposal relating to 36 medical institutions was not captured.

5.8.2 Blood Bank Module

Twenty eight out of 380 records containing the details of blood donation showed that the expiry date was earlier than the blood donation date.

A total of 7,820 records relating to five medical institutions only have been captured in the system. It was, however, seen that vital details of the blood stored in blood bank such as type, and results of mandatory tests were not captured.

5.8.3 Ward Module

A total of 10,47,124 records relating to ward discharge had been captured.

Data pertaining to the details of the doctor, status and case type were not captured in 7,99,140 records, 10,47,127 records and 1,405 records respectively.

- Number of patients discharged was captured incorrectly in two different tables of the system.
- Discharge Remarks were not captured, or invalid data was captured in 7,25,733 records.
- Data on surgery done date, Anesthesia code, post-operative instructions etc., was not available.

While the implementation of all modules of HIMS 2.0 was delayed and as only six *per cent* of the modules were functional, Audit observed that details, even if filled up by the doctors and staff, would not be complete and fulfil the objective. Thus, the expenditure of ₹20.61 crore on HMIS 2.0 implementation was rendered wasteful as the objectives of computerisation were not achieved.

Government replied (August 2022) that TNeGA[22] has been asked to evaluate the work done by the System Integrator. Further action taken by Government is awaited (September 2022).

[22] Tamil Nadu e-Governance Agency.

CHAPTER VI
FINANCIAL MANAGEMENT

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FINANCIAL MANAGEMENT

Against National Health Policy's (NHP) target of spending eight *per cent* of State's budget on healthcare, the expenditure on healthcare in the State ranged from 3.99 *per cent* to 5.99 *per cent* of the total expenditure during 2016-22. Despite inadequate budget provisions *vis-à-vis* NHP target, the department could not spend more than five *per cent* of the total expenditure of the State in four out of the last six years. The capital expenditure on healthcare registered significant increase during 2020-21 and 2021-22. Primary healthcare received inadequate attention with just about 35 *per cent* of the total health budget, as against 66 *per cent* envisaged in NHP, resulting in shortage of Urban PHCs by 43 *per cent*. TNMSC and TAMPCOL, the procurement agencies of HFW Department retained huge unspent balances with them without returning the same to Government. Different HoDs of the Department continued to release funds to TNMSC and TAMPCOL without linking it with the unspent balances held by them. Planning lacked focus as GoTN did not conduct facility survey of HCFs to identify gaps to assess the availability of buildings and equipment, to prepare the plan for upgrading the facilities based on ground realities.

6.1 Financial Management

As 'Public health and sanitation; hospitals and dispensaries' is enumerated under the State List in the Seventh Schedule[1], the delivery of healthcare largely rests with the States and the funds are allocated by the State Government.

Further, the National Health Mission[2] (NHM) is a major instrument of financing and support by the GoI to strengthen the State's public health systems and healthcare delivery. The financing to the state is based on the State's Programme Implementation Plan (PIP) and the fund flow from the Central Government to the States would be as per the procedure prescribed by the GoI.

6.1.1 Budget allocation and expenditure on health sector (Central and State Government)

The budget allocation and expenditure incurred on health sector during 2016-22, out of grants/funds allocated by both the Central and State Governments respectively, is given in **Table 6.1**.

1 Article 246 of the Constitution of India.
2 Encompasses its two Sub-Missions, National Rural Health Mission and National Urban Health Mission.

Table 6.1: Budget allocation and expenditure on health sector (Central and State Government)

(₹ in crore)

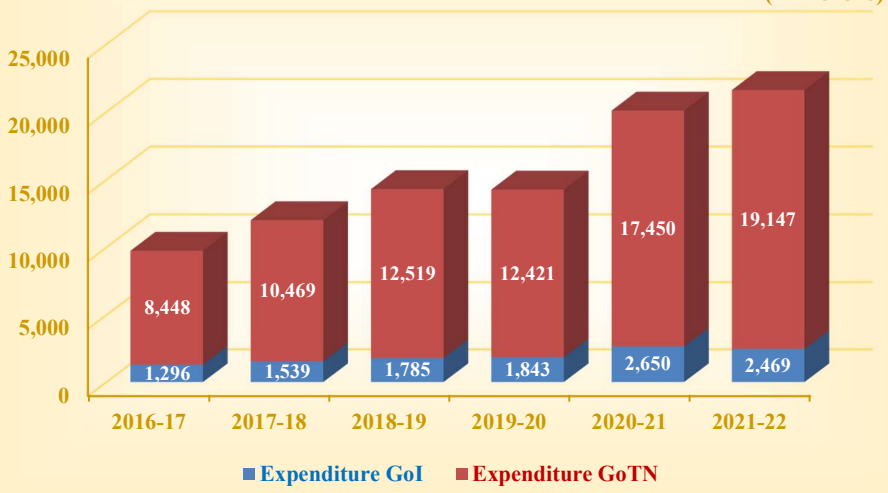
Year	Government of India			Government of Tamil Nadu		
	Grants received	Expenditure	Savings	Budget provision	Expenditure	Savings
2016-17	1,296.47	1,296.47	0	9,084.97	8,448.47	636.50
2017-18	1,539.18	1,539.18	0	10,691.04	10,468.80	222.24
2018-19	1,784.61	1,784.61	0	12,598.39	12,518.86	79.53
2019-20	1,842.54	1,842.54	0	13,306.89	12,420.75	886.14
2020-21	2,650.09	2,650.09	0	19,058.01	17,449.79	1,608.22
2021-22	2,469.13	2,469.13	0	20,668.66	19,146.66	1,522.00
Total	**11,582.02**	**11,582.02**		**85,407.96**	**80,453.33**	**4,954.63**

(Source: Annual Accounts of National Health Mission - Tamil Nadu and Appropriation Accounts of the respective years - GoTN)

The expenditure on health sector out of GoI's and GoTN's funds and the savings therefrom is shown in **Exhibits 6.1** and **6.2** respectively.

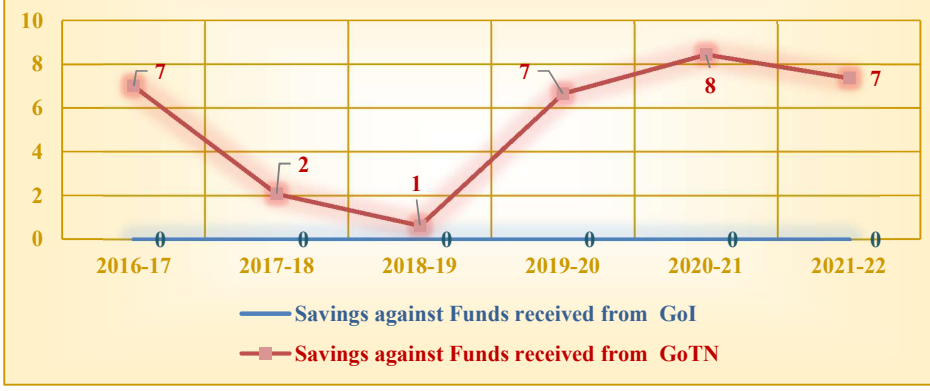
Exhibit 6.1: Expenditure on Health sector against funds allotted by GoI and GoTN

(₹ in crore)



(Source: Annual Accounts of National Health Mission - Tamil Nadu and Appropriation Accounts of the respective years - GoTN)

Exhibit 6.2: Savings against total Budget provision in percentage
(Central and State Government)



(Source: Annual Accounts of National Health Mission - Tamil Nadu and Appropriation Accounts of the respective years - GoTN)

6.1.2 Expenditure on Health sector by the State *vis-à-vis* National Health Policy norms

The budget allocation and expenditure of the State for the period 2016-22 is shown in **Table 6.2**.

Table 6.2: Allotment and expenditure of the State

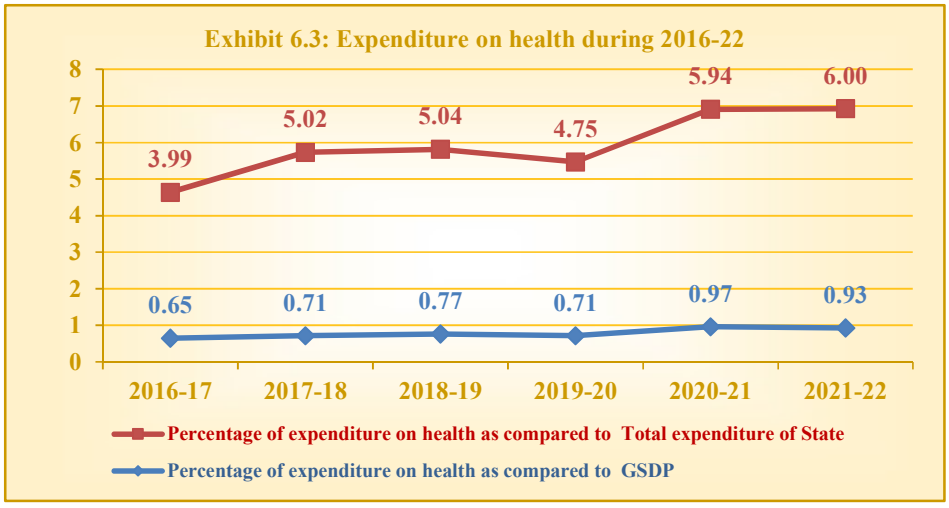
(₹ in crore)

Year	Budget allotment			Expenditure			HFW expenditure as a percentage of total	
	Total budget	Budget for HFW	HFW budget as percentage of total budget	Total expenditure	Expenditure on HFW	Budget utilisation (In *per cent*)	Budget	Expenditure
2016-17	2,33,667.47	9,084.97	*3.89*	2,11,641.78	8,448.47	*92.99*	*3.62*	*3.99*
2017-18	2,36,801.62	10,691.04	*4.51*	2,08,622.18	10,468.80	*97.92*	*4.42*	*5.02*
2018-19	2,67,993.42	12,598.39	*4.70*	2,48,170.04	12,518.86	*99.37*	*4.67*	*5.04*
2019-20	2,88,353.26	13,306.89	*4.61*	2,61,259.87	12,420.75	*93.34*	*4.31*	*4.75*
2020-21	3,38,972.45	19,058.01	*5.62*	2,93,753.74	17,449.79	*91.56*	*5.15*	*5.94*
2021-22	3,49,739.62	20,668.66	*5.90*	3,19,361.81	19,146.66	*92.64*	*5.47*	*5.99*

(Source: Appropriation Accounts of the respective years - GoTN)

During 2016-22, Budget allocation for the health sector ranged from 3.89 *per cent* to 5.90 *per cent* of the total budget of the State, against eight *per cent* stipulated by NHP. Utilisation of the allotted funds ranged from 91.56 *per cent* to 99.37 *per cent* and averaged 94.64 *per cent* during 2016-22.

Further, the NHP envisages increase in health expenditure by Government as a percentage of Gross Domestic Product (GDP) to 2.5 *per cent* by 2025. However, the percentage of expenditure on health by GoTN during 2016-22 as a percentage of Gross State Domestic Product (GSDP) ranged from only 0.65 *per cent* (2016-17) to 0.97 *per cent* in 2020-21. The percentage of expenditure on health, as compared to the GSDP and total expenditure of the State, is given in **Exhibit 6.3**.

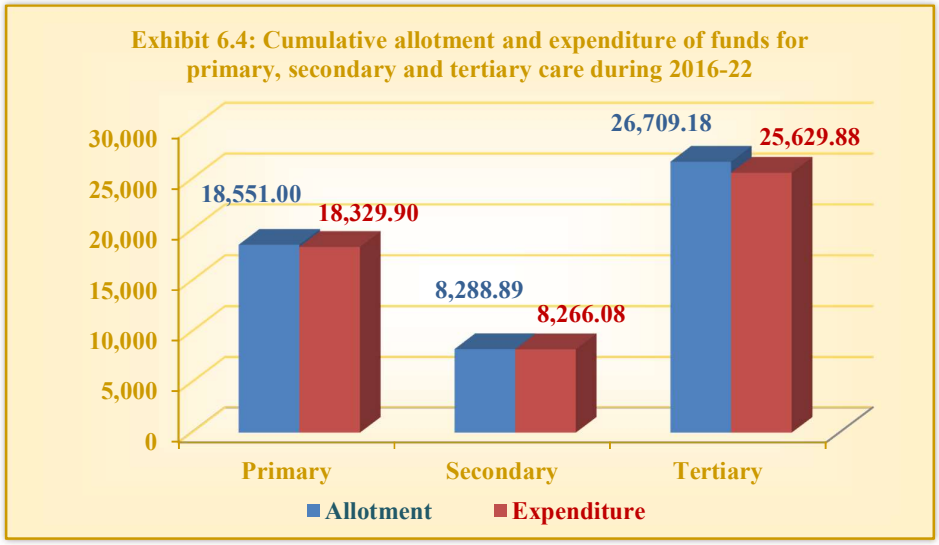


(Source: Central Statistical Office (CSO), Ministry of Statistics and Programme implementation and Appropriation Accounts of the respective years - GoTN)

6.1.3 Inadequate focus on primary healthcare

The NHP, 2017, advocates allocating up to two-thirds (i.e. 66.66 *per cent*) or more of resources to primary care followed by secondary and tertiary care institutions. The allocation of funds for the three levels of healthcare and its expenditure is shown in **Exhibit 6.4**.

(₹ in crore)



(Source: Appropriation Accounts of the respective years - GoTN)

As can be seen in the **Exhibit 6.4**, GoTN spent 49 *per cent* of the funds on tertiary care, followed by 35 *per cent* for primary care and 16 *per cent* for secondary care facilities.

Audit observed that the inadequate funding for primary healthcare facilities had resulted in shortage in the number of PHCs, especially the Urban PHCs (shortfall by 43 *per cent*), with reference to GoI norms, as commented in **Paragraph 5.1.1**.

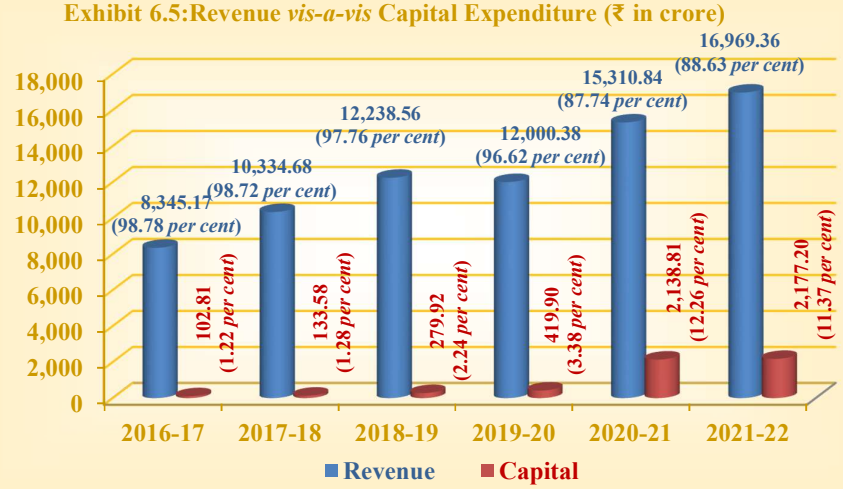
GoTN replied (August 2022) that people residing in urban areas preferred secondary/tertiary care institutions.

Audit observed that the primary healthcare sector, being the leading contributor to preventive aspects of health like providing vaccination, antenatal care, school healthcare, etc., the lower priority for funding could negatively impact the role to be played by PHCs.

6.1.4 Revenue and Capital expenditure

The Revenue and Capital expenditure of the Health and Family Welfare Department during 2016-22 is shown in **Exhibit 6.5**.

Exhibit 6.5:Revenue *vis-a-vis* Capital Expenditure (₹ in crore)



(Source: Appropriation Accounts of the respective years - GoTN)

The expenditure on salaries and wages constituted 46 *per cent* of the total revenue expenditure and drugs and equipment constituted nine *per cent* of the total revenue expenditure during 2016-22. The absolute increase in revenue expenditure during 2020-21 was due to COVID-19 related spending. The capital expenditure increased from 1.22 *per cent* of the total health sector expenditure in 2016-17 to 3.38 *per cent* in 2019-20 and 12.26 *per cent* in 2020-21. The expenditure on maintenance of existing buildings of the Department stood at about ₹100 crore per year during 2016-22.

The average percentage of capital expenditure on Health in the State, as compared with aggregate expenditure, was 5.31 *per cent* during 2018-20 and the capital expenditure on health, as a percentage of GSDP stood at 0.11 *per cent* in the State during 2020-21.

Audit observed that the budget outlay for maintenance of buildings, which stagnated at around ₹100 crore during 2016-22, resulted in poor maintenance of the existing and new buildings due to inadequate funding, as discussed in **Paragraph 5.3.1**.

GoTN did not transfer function, funds and functionaries to Municipalities and Panchayat Raj Institutions for health-related activities. Therefore, the Panchayat Raj Institutions and Urban Local Bodies, except Greater Chennai Corporation,

did not incur any direct expenditure on healthcare services. Sub-optimal spending on health sector resulted in shortfalls in deployment of manpower and inadequate infrastructure as discussed in **Chapter V** of this Report.

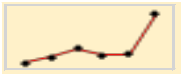
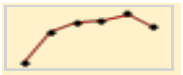
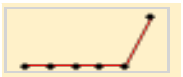
Recommendation 8:

Government should ensure that the outlay for healthcare is increased to eight *per cent* of the budget as envisaged in the National Health Policy to bridge the gaps in infrastructure and manpower needs of all three levels of public health institutions, particularly with a focus on the gaps in Urban Primary Healthcare services. The Department should strive to utilise the budget allotments in full.

6.1.5 Budget allocation and expenditure on important components under NHM

The National Health Mission (NHM) implements various programmes for which fund allocation is shared between the Union and State Governments in the ratio of 60:40. The budget allocation and expenditure on certain important components under NHM in the State is given in **Table 6.3**.

Table 6.3: Budget allocation and Expenditure on important components under NHM

Scheme	Total Budget for 2016-22 (₹ in crore)	Total expenditure for 2016-22 (₹ in crore)	Percentage of total expenditure to budget	*Per cent* utilisation						Sparkline for six years during 2016-22
				2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	
National Center for Vector Borne Diseases Control	125.18	90.01	*72*	27	28	27	3	5	8	
Routine Immunisation Strengthening Project	132.24	82.15	*62*	28	15	24	9	12	12	
Pulse Polio Immunisation (PPI)	93.15	39.64	*43*	3	44	14	14	13	12	
Iodine Deficiency (NIDDCP)	5.24	0.85	*16*	0	7	16	9	11	56	
Health System Strengthening	7,884.40	6,389.79	*81*	8	16	19	19	21	17	
National Viral Hepatitis control programme (NVHCP)	0.45	2.98	*662*	0	0	0	0	0	100	
National Leprosy Eradication Programme (NLEP)	26.19	25.87	*99*	13	11	31	26	7	12	
National Programme for Control of Blindness (NPCB)	245.16	194.45	*79*	12	14	33	21	12	9	
National Mental Health Programme (NMHP)	18.92	12.08	*64*	14	9	20	20	15	22	

(Source: Details furnished by NHM, Tamil Nadu)

6.2 Budget and expenditure for sampled districts

The budget allocation for health and expenditure therefrom in the sampled districts during 2016-22 is given in **Appendix 6.1** and the percentage of expenditure by the sampled districts out of the allotted budget is given in **Table 6.4**.

Table 6.4: Percentage of expenditure against budget allocation in sampled Districts

Year	Erode	Karur	Perambalur	Thanjavur	Theni	Tiruvannamalai
2016-17	*96*	*79*	*99*	*101*	*96*	*88*
2017-18	*102*	*103*	*85*	*70*	*96*	*103*
2018-19	*101*	*97*	*107*	*91*	*88*	*102*
2019-20	*99*	*98*	*92*	*109*	*96*	*99*
2020-21	*107*	*89*	*118*	*97*	*99*	*128*
2021-22	*97*	*71*	*78*	*92*	*99*	*106*
Average	***100***	***89***	***96***	***93***	***96***	***104***

(Source: Compiled from details furnished by the DDHS, JDHS and MCHs in sampled districts)

6.3 Unutilised amount lying outside Government account

Tamil Nadu Budget Manual enjoins that fund should be withdrawn from Government account only when it is actually required. Instances of drawal of funds more than actual requirement and idling of funds outside the Consolidated Fund of the State are discussed in the succeeding sub-paragraphs.

6.3.1 Tamil Nadu Medical Services Corporation Limited

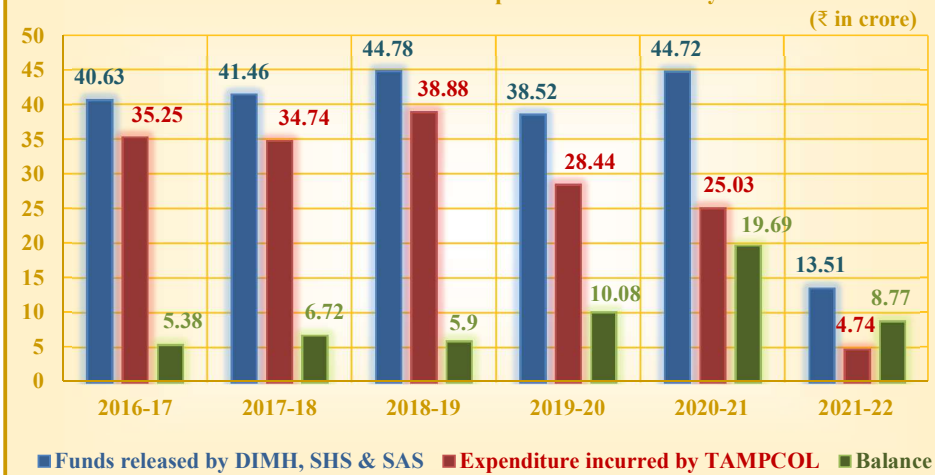
GoTN constituted TNMSC in 1994, with the objective to procure, test, store and distribute drugs, medicine, surgical and suture consumables to all Government medical institutions in the State.

As of March 2022, TNMSC held an unutilised balance of ₹2,516.08 crore, out of the funds received from various Directorates towards procurement of drugs (₹254.84 crore) and equipment (₹2,261.24 crore). Audit observed that TNMSC had an IT based system for monitoring procurement and distribution of drugs and medicines as well as for equipment. Therefore, it was quite possible to assess the requirement of funds with greater accuracy. However, the repeated failure to restrict the fund release with actual requirement, had resulted in falsification of the accounts as the expenditure shown as incurred were not actually incurred, but retained by TNMSC in its Personal Deposit account, leading to overstatement of actual expenditure for Health.

6.3.2 Funds kept unutilised by TAMPCOL

GoTN has nominated TAMPCOL as the Nodal Agency for procurement and supply of medicines, machinery and equipment, to all the AYUSH centres functioning under the Directorate of Indian Medicine and Homoeopathy (DIMH). The details of funds released by DIMH, SHS and SAS to TAMPCOL during the period from 2016-22, expenditure incurred, and the unspent balance is shown in **Exhibit 6.6**.

Exhibit 6.6: Funds released to and Expenditure incurred by TAMPCOL



(Source: Details furnished by DIMH and TAMPCOL)

As per the existing system, DIMH released funds to TAMPCOL for procurement of AYUSH medicines and other supplies for use in the AYUSH wings in HCFs. The AYUSH wings in HCFs submitted their indents to TAMPCOL and the agency procured/manufactured the items and supplied to the HCFs. TAMPCOL rendered accounts to DIMH, but DIMH had not maintained proper records of indents placed by HCFs and supplies received by them. The accounts rendered by TAMPCOL were treated as final accounts by DIMH. Thus, Audit could not ensure the accuracy of the account maintained by DIMH. Further, in the sampled units in Erode and Tiruvannamalai districts, Audit found that TAMPCOL did not supply 13 to 23 items of Siddha medicines indented by the DHQHs, TKHQs and PHCs.

The CAG's Audit Report (General and Social Sector), for the year ended March 2018, had already highlighted that TAMPCOL had an unspent balance of ₹22.68 crore as of March 2018. As of March 2022, the unspent balance had increased to ₹56.64 crore.

Audit, however, observed that as of February 2024, the unspent balance held by TAMPCOL had substantially reduced to ₹83.64 lakh. To a specific Audit enquiry, the Chief Accounts Officer (CAO), TAMPCOL replied (February 2024) that since the indents are presently placed online, the pending supply was being easily identified. Further, the CAO, TAMPCOL stated that out of an unspent balance of ₹83.64 lakh, indents have been received for

₹82.67 lakh, for which tender is under process and thereafter supply will be completed fully.

Recommendation 9:

Government should ensure that releasing funds to TNMSC and TAMPCOL are linked to the actual requirement of drugs and other supplies and direct these agencies to refund the unspent balances immediately.

6.3.3 Funds kept unutilised by State AYUSH Society

The State AYUSH Society - Tamil Nadu (SAS) was formed to implement the schemes sanctioned to the State under the National AYUSH Mission. The expenditure on the schemes, implemented by the SAS, are shared in the ratio of 60:40 by GoI and GoTN. During 2016-22, GoTN released ₹199.42 crore (GoI share ₹119.83 crore and GoTN share ₹79.89 crore).

The funds released during 2016-22 were not fully utilised leaving a balance of ₹27.50 crore (14 *per cent*) as of March 2022. Audit found that the Utilisation Certificates (UC) issued by SAS during 2016-21 was flawed, as the UC showed an expenditure of ₹75.67 crore against the actual expenditure of ₹73.32 crore out of GoI grants. The receipt, expenditure and bank balances were not periodically reconciled.

Audit observed that the financial management in State AYUSH Society is prone to possible irregularities as the receipt, expenditure and balances were not periodically reconciled.

6.4 Planning

6.4.1 Non-framing of State Health Policy

The National Health Policy, 2017 (NHP), envisages setting up of appropriate standards for public health delivery and for providing funds by the State Governments. GoTN did not adopt the NHP in toto; especially the IPHS norms, which stipulates quality benchmarks for medical institutions. GoTN had not implemented NHP's recommendations on creation of cadre for Public Health Management and earmarking more than eight *per cent* of State's budget[3] for health sector by 2020.

Audit observed that the State had not evolved a State level Health Policy to provide directions for implementing various programmes and projects of health sector. Though GoTN prepares an Annual Policy Note and presents it in the Legislature, it was not a substitute for a comprehensive State level health policy with long term goals and strategies.

Lack of a State level Policy and non-committal on following NHP had resulted in the absence of a criteria for deployment of manpower and creation of

[3] Funds for Health Sector ranged from 3.89 to 5.62 *per cent* during 2016-22.

infrastructure either with reference to IPHS norms or any other State level norms, as discussed in succeeding Chapters.

GoTN replied (August 2022) that Government was considering bringing out 'The Tamil Nadu Right to Health Policy'.

6.4.2 Non-conduct of facility survey

As per NHM Assessors' Guidebook, gap analysis should be conducted by the HCFs to assess the availability/non-availability of infrastructure, human resource, equipment, drugs, etc., as against the prescribed norms.

GoTN has set their own norms for supply of machineries, equipment, manpower, etc., for PHCs, and secondary care hospitals, and follows the standards set by National Medical Commission[4] for MCHs. It was seen that while sanctioning for establishment of new HCFs, GoTN accorded administrative sanction for construction of buildings, procurement of equipment and posting of manpower as per the policy note of the State Government. It was further observed that these standards/norms were applied only for the HCFs being newly established and no effort was made to equip the older institutions established prior to 2016 at par with those which were coming up post 2016.

Audit found that no gap analysis was conducted by the DME in any of the institutions. Though DPH and DMRHS replied that gap analysis was conducted in Primary and Secondary care institutions respectively, the records to substantiate the same, were not produced to Audit. The sampled HCFs confirmed the fact that no gap analysis was done by them based on any standards.

GoTN, accepted (August 2022) that there was no formal gap analysis done and the proposals of HCFs were approved based on their requirement of buildings, equipment, manpower etc.

Due to the absence of a formal facility survey and gap assessment, GoTN could not prioritise the areas requiring development, as discussed in the succeeding Chapters.

Recommendation 10:

Government should ensure that the fund and manpower allocation are based on the gaps identified through the annual facility survey, as specified with National Health Mission.

[4] National Medical Commission replaced the Medical Council of India in September 2020.

National Leprosy Eradication Programme

CHAPTER VII
IMPLEMENTATION OF CENTRALLY SPONSORED SCHEMES

Revised National TB Control Programme
RNTCP

NATIONAL HEALTH MISSION
राष्ट्रीय स्वास्थ्य मिशन
TAMIL NADU

CHAPTER VII

IMPLEMENTATION OF CENTRALLY SPONSORED SCHEMES

Inadequate number of Urban PHCs resulted in shortfall in the conduct of outreach services under GoI funded National Urban Health Mission (NUHM) in the urban slums. Performance under the *Kayakalp*, a GoI scheme to certify HCFs was unsatisfactory as only 52 *per cent* of the HCFs were certified under the scheme during 2016-22. The GoI funded National Centre of Ageing did not commence functioning, even after six years of launching the project and availability of GoI funds therefor. While the financial performance under National Blindness Control programme was about 90 *per cent*, the performance under National Tobacco Control Programme had not taken off well. There were shortfalls in the provision of benefits to the women beneficiaries under '*Janani Suraksha Yojana*' and '*Janani Shishu Suraksha Karyakram*'. Despite availability of funds, GoTN incurred only six *per cent* of the funds released for '*Anaemia Mukt Bharat*' and only 14 *per cent* of the funds allotted under the 'Labour Room and Quality Improvement Initiative' Scheme.

7.1 Introduction

The National Health Mission[1] (NHM), launched by the GoI in 2005, envisaged achievement of universal access to equitable, affordable and quality healthcare services. NHM is implemented by the State Health Society[2] (SHS), headed by its Mission Director. At the District Level, SHS operates under the District Health Society (DHS) headed by District Collector as Chairman. DHS is responsible for planning, managing and monitoring all NHM programmes in the district. NHM expenditure is shared between the Central and State governments in the ratio of 60:40. Annual outlay under NHM is based on the state's Programme Implementation Plan[3]. The details of funds for the schemes implemented in the State under NHM during the period 2016-22 is given in **Table 7.1** and the various activities carried out under these schemes are given in **Appendix 7.1**.

---

1 Includes NRHM and NUHM.

2 Formed by merging the existing societies for control of leprosy, tuberculosis and blindness except AIDS Control.

3 Includes Part I: NRHM RCH Flexipool, Part II: NUHM Flexipool, Part III: Flexible Pool for Communicable Diseases, Part IV: Flexible Pool for Non-communicable Diseases, Injury and Trauma and, Part V: Infrastructure Maintenance.

Table 7.1: Funds sanctioned, released and incurred under NHM

(₹ in crore)

Sl.No.	Details	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
1	Programme Implementation Plan proposed	1,914.01	2,373.68	1,950.74	2,384.97	2,661.77	2,708.82
2	Programme Implementation Plan approved	1,686.40	2,101.94	1,731.94	2,141.90	2,437.66	2,555.33
3	Opening balance	1,013.35	757.46	764.75	840.21	811.12	964.18
4	Funds sanctioned by GoI	1,095.39	1,251.39	1,445.44	1,667.97	2,441.98	2,751.24
5	Funds released by	**1,017.74**	**1,364.40**	**1,829.12**	**1,767.57**	**2,773.62**	**2,751.24**
	(a) GoI (60 *per cent*)	522.25	693.05	690.03	816.60	1,728.84	1,446.04
	(b) GoTN (40 *per cent*)	495.49	671.35	1,139.09	950.97	1,044.77	1,305.20
6	Bank interest / Internal transfer	2.87	225.66	23.73	23.04	18.09	13.55
7	**Total receipts** (3+5+6)	**2,033.96**	**2,347.52**	**2,617.60**	**2,630.82**	**3,602.82**	**3,728.97**
8	Expenditure incurred	1,276.50	1,511.37	1,777.40	1,818.18	2,638.45	2,446.95
9	Refund/Internal transfers	-	71.40	-	1.52	0.20	1.17
10	Unspent balance (7- (8+9))	**757.46**	**764.75**	**840.21**	**811.12**	**964.18**	**1,280.85**

(Source: Details furnished by NHM-TN)

The implementation of selected schemes in the State under NHM is discussed in the succeeding paragraphs.

7.2 Outreach Services in the National Urban Health Mission

The urban component of NHM, National Urban Health Mission (NUHM), provides support for outreach services that are targeted to slum dwellers and other vulnerable groups in towns and cities. Two types of outreach services are envisaged in NUHM *viz.*, Urban Health and Nutrition Days and Special Outreach Sessions through conduct of camps. The performance of the outreach services in the NUHM in the State and in the six sampled districts for the period 2016-22 is given in **Tables 7.2** and **7.3** respectively.

Table 7.2: Performance of NUHM's outreach services in the State during 2016-22

Year	Urban Health and Nutrition Days			Special Outreach Sessions		
	Target	Camps Conducted	Achievement in *per cent*	Target	Camps Conducted	Achievement in *per cent*
2016-17	28,224	12,819	*45*	15,210	9,344	*62*
2017-18	28,224	14,170	*50*	15,210	8,340	*55*
2018-19	28,224	14,660	*52*	15,210	9,328	*62*
2019-20	28,224	18,490	*66*	15,210	9,153	*61*
2020-21	28,224	9,893	*35*	15,210	2,256	*15*
2021-22	28,224	12,409	*44*	5,076	3,478	*69*
Total	**1,69,344**	**82,441**	*49*	**80,676**	**41,899**	*52*

(Source: Details furnished by NHM-TN)

Table 7.3: Performance of NUHM's outreach services in the sampled Districts during the period 2016-22

Sampled Districts	Urban Health and Nutrition Days			Special Outreach Sessions		
	Target	Camps Conducted	Achievement in *per cent*	Target	Camps Conducted	Achievement in *per cent*
Erode	4,032	2,966	*74*	2,112	779	*37*
Karur	1,584	959	*61*	768	606	*79*
Perambalur	360	209	*58*	192	116	*60*
Thanjavur	3,096	2,215	*72*	1,536	1,144	*74*
Theni	1,584	1,069	*67*	768	636	*83*
Tiruvannamalai	1,008	940	*93*	576	250	*43*
Total	**11,664**	**8,358**	*72*	**5,952**	**3,531**	*59*

(Source: Details furnished by NHM-TN)

The achievements under outreach services for Urban Health and Nutrition Days for the entire State ranged between 35 *per cent* and 66 *per cent* and for Special Outreach Sessions, it was between 15 *per cent* and 69 *per cent* during 2016-22.

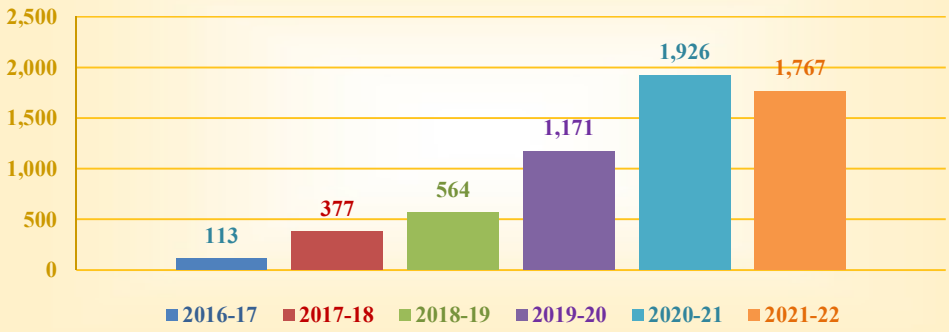
Audit found that the shortfall was attributable to the inadequate number of Urban PHCs, as discussed in **Paragraph 5.1.1**.

7.3 *Kayakalp*

In 2015, the GoI launched a National Initiative to give Awards 'KAYAKALP' (Rejuvenating Public Healthcare Facilities) to the Government Health Facilities that demonstrate high levels of cleanliness, hygiene and infection control. In Tamil Nadu, *Kayakalp* Award Programme is being implemented in all Secondary Care and Primary Care facilities through DMRHS and DPH respectively to improve the quality of healthcare services in Government Facilities. In the year 2015, this activity was initiated in Government District Head Quarters Hospitals. Since 2016, this activity gradually was extended to Sub District Hospitals, Community Health Centres and Primary Health Centres in all Districts. In the year 2019, this initiative was extended to Health Sub Centres functioning as Health Wellness Centres.

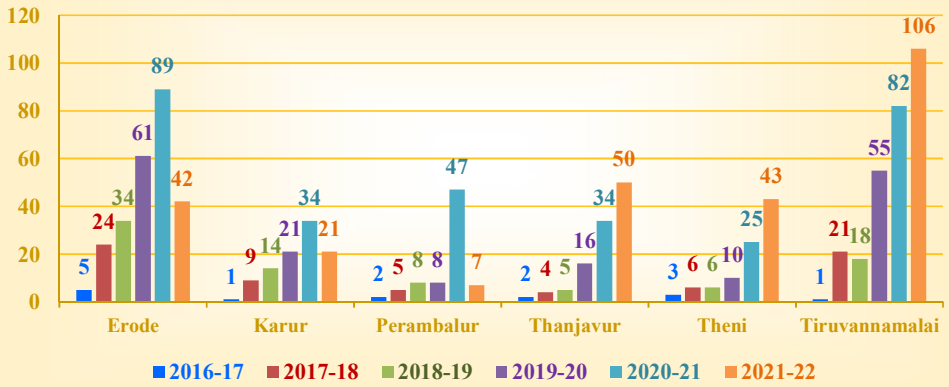
The number of Government HCFs in the entire State and the sampled districts, which were awarded *Kayakalp* during the period 2016-22 is given in **Exhibits 7.1** and **7.2.**

Exhibit 7.1: Number of HCFs awarded *Kayakalp* in the State during 2016-22



(Source: Data furnished by NHM-TN)

Exhibit 7.2: Number of HCFs awarded *Kayakalp* in the sampled Districts during 2016-22



(Source: Data furnished by NHM-TN)

GoTN had envisaged that the final outcome of the scheme is to make all the Government HCFs as *Kayakalp* certified by 2021. Audit, however, observed that as of March 2022, only 5,918 HCFs out of 11,323 HCFs[4] (i.e., only 52 *per cent*) have been *Kayakalp* certified.

7.4 Accreditation of hospitals and healthcare facilities

7.4.1 National Accreditation Board for Hospitals and Healthcare Providers

National Accreditation Board for Hospitals and Healthcare Providers (NABH) is a constituent board of Quality Council of India, set up to establish and operate accreditation programme for healthcare organisations. The accreditation standard for hospitals focuses on patient safety and quality of delivery of services by the hospitals in a changing healthcare environment.

[4] DHQHs - 37; TKHs and NTKHs - 256; PHC - 1830; HSCs - 8,713 and Urban PHCs - 487.

AYUSH hospital accreditation program is running in association with Ministry of AYUSH, GoI which encompasses relevant and comprehensive quality assurance standards for each system as per their individual system of medicine and requirements.

- NABH accreditation was not obtained for any of the MCHs functioning under the Department. In December 2018, the DME started the process for obtaining NABH entry level accreditation in respect of four[5] MCHs. The process involved appointment of Quality Managers, Quality Committees, training of staff, preparation of Manuals etc. The process was suspended during COVID-19 pandemic. The accreditation process is yet to be completed even as of August 2022.
- In respect of ISM, none of the hospitals and dispensaries functioning under DIMH was accredited under AYUSH Hospital accreditation program.
- Similarly, NABL accreditations for any of the drug testing and clinical laboratories were not obtained.

As NABH accreditation is achieved by aspiring HCFs after meeting the accreditation standards for hospitals, non-accreditation of Government HCFs would deny these HCFs an opportunity to upgrade their quality standards.

7.4.2 National Quality Assurance Standards

National Quality Assurance Standards (NQAS), developed under NHM, aimed to improve the quality of District/Taluk/Non-Taluk hospitals, CHCs, PHCs and Urban PHCs. Certified facilities were also provided financial incentives under NHM as recognition of their good work.

In 2018, GoTN planned to obtain NQAS certification for 594 HCFs, and earmarked ₹24.23 crore. As of March 2022, 145 HCFs were granted 'Quality Certification' for which GoTN incurred an expenditure of ₹20.47 crore out of ₹24.23 crore allotted. The status is shown in **Table 7.4.**

Table 7.4: Details of NQAS certification

Year	Funds allotted (₹ in crore)	Expenditure incurred (₹ in crore)	Number of public health facility planned for NQAS certification	Number of NQAS certified public health facilities					
				DHQH	TKH/ NTKH	CHC	PHC	Urban PHC	Total
2018-19	11.75	4.56	94	13	0	5	5	-	23
2019-20		3.49	117	1	12	15	22	-	50
2020-21*	-	-	254	-	-	-	-	-	-
2021-22	12.48	12.43	129	6	13	21	26	6	72
Total	**24.23**	**20.48**	**594**	**20**	**25**	**41**	**53**	**6**	**145**

* No NQAS assessment due to COVID pandemic
(Source: Details furnished by NHM)

[5] Dharmapuri, Kanyakumari, Tiruvannamalai and Theni.

Shortfall was due to ineffective handling of the certification process despite utilising the allotted funds.

Government stated (August 2022) that the certification process got delayed due to COVID-19 and non-availability of Consultants to manage the certification process.

7.5 Family Welfare Schemes

The National Family Welfare Programme (FWP) is implemented with the main objective of stabilising the population growth. The target and achievements of various FWP during the years 2016-22 are given in the **Table 7.5.**

Table 7.5: Target and achievements of Family Welfare Programmes during 2016-22

(In numbers)

Sl. No.	Programme	Target and achievement	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
1	Total Sterilisation	ELD*	4,00,000	4,00,000	4,00,000	3,50,000	3,50,000	3,50,000
		Actual	2,72,907	2,62,811	2,58,811	2,58,264	2,25,834	2,32,051
		***Per cent* w.r.t ELD**	***68***	***66***	***65***	***74***	***65***	***66***
2	Interval IUCD	ELD	4,00,000	1,50,000	1,80,000	1,60,000	1,60,000	1,60,000
		Actual	3,87,040	2,05,592	1,30,670	82,339	60,686	62,732
		***Per cent* w.r.t ELD**	***97***	***137***	***73***	***51***	***38***	***39***
3	PPIUCD**	ELD	2,50,000	2,50,000	2,70,000	2,40,000	2,40,000	2,40,000
		Actual	1,40,595	1,67,515	2,01,682	2,53,642	3,19,936	3,61,028
		***Per cent* w.r.t ELD**	***56***	***67***	***75***	***106***	***133***	***150***
4	Oral Pill Users	ELD	1,00,000	1,00,000	2,00,000	4,00,000	4,00,000	4,00,000
		Actual	57,608	45,823	34,478	29,727	29,652	27,417
		***Per cent* w.r.t ELD**	***58***	***46***	***17***	***7***	***7***	***7***
5	Contraceptive Condom Users	ELD	2,00,000	2,00,000	3,00,000	6,00,000	6,00,000	6,00,000
		Actual	91,785	88,281	98,673	76,686	67,902	75,984
		***Per cent* w.r.t ELD**	***46***	***44***	***33***	***13***	***11***	***13***

* ELD: Expected Level of Demand; **PPIUCD: Post-Partum Intra Uterine Contraceptive Devices

(Source: Family Welfare Bulletins)

It may be mentioned that the birth rate in the State has already been brought below the national average and also below the replacement rate. It was also found that the higher order births[6] has decreased from 7.9 in the year 2015 to 7.35 in 2020.

7.5.1 Lower compensation under Family Planning Indemnity Scheme

In May 2013, GoI launched the Family Planning Indemnity Scheme (FPIS) to provide compensation in the case of death of persons undergoing sterilization and cases of failure of sterilization. In October 2016, GoI, doubled the maximum compensation payable as ₹4 lakh in the case of death and compensation for failure of sterilization was also doubled to ₹60,000.

Accordingly, the Director of Family Welfare (DoFW) requested (March 2017 and September 2020) GoTN to enhance the quantum of compensation

[6] A woman having three or more children.

from 01 January 2017. GoTN, however, did not take any decision on the proposal. Audit found that during 2016-21, 26 sterilization deaths, 2,375 sterilization failures were reported in the State.

Audit observed that due to non-revision of rates as per GoI norms, the families of 2,401 persons were denied adequate compensation.

7.6 National Tuberculosis Elimination Programme

The National Tuberculosis Elimination Programme (NTEP) delivers Tuberculosis (TB) Care Services with a vision to achieve elimination of TB by the year 2025. The number of TB patients notified during the period 2016-22, both in Public and Private sector of the health systems in Tamil Nadu, is given in **Table 7.6**.

Table 7.6: Number of TB patients notified during 2016-22

Year	Public	Private	Total
2016	82,107	NA	82,107
2017	74,256	19,071	93,327
2018	75,415	29,502	1,04,917
2019	82,668	28,177	1,10,845
2020	54,013	16,291	70,304
2021	64,456	18,367	82,823
2022	71,896	21,983	93,879
Total	**5,04,811**	**1,33,391**	**6,38,202**

(Source: Details compiled from India TB Reports for the respective year)

One of the major objectives of NTEP is to reduce the estimated TB Incidence rate (per one lakh population) to 142 by 2020 and to 77 by 2022. Audit, however, observed that the TB case notification rate[7] was 86 in 2020 and increased to 121 during 2022.

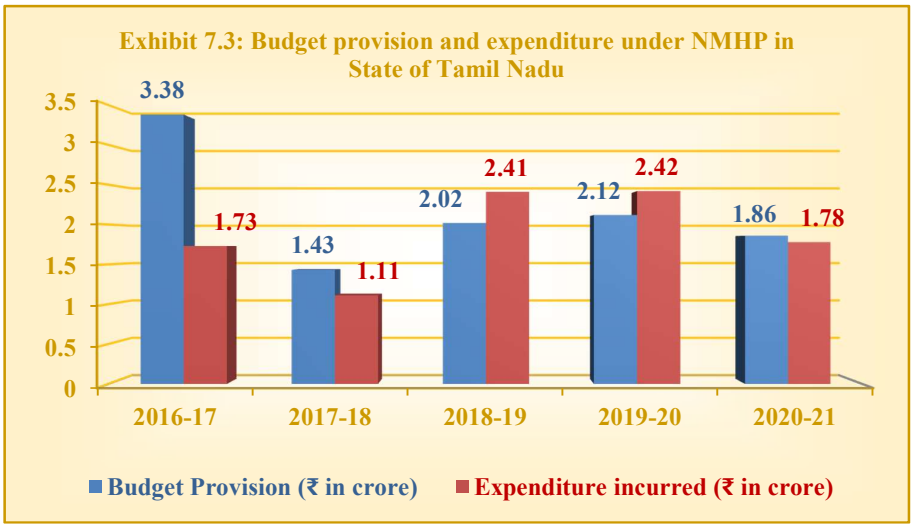
7.7 National Mental Health Programme

The National Mental Health Programme (NMHP) was launched (1982) by GoI to ensure the availability and accessibility of minimum mental healthcare for all. Under NMHP, the District Mental Health Program (DMHP) was launched in 1996 for early detection and treatment of common mental illnesses. In Tamil Nadu, DMHP is being implemented in 32 districts.

7.7.1 Non-utilisation of funds under NMHP

The budget provision and expenditure under NMHP for the period 2016-21 is given in **Exhibit 7.3**.

[7] As per India TB Reports for the years 2021 and 2023.



(Source: Details furnished by NHM, Tamil Nadu)

According to the National Crime Records Bureau (NCRB) Report for 2021, the rate of suicides[8] in Tamil Nadu is 26.4 per one lakh population against the national average of 12. In absolute terms, the State has the second highest number of reported suicides in the country after Maharashtra during 2019-21 as per NCRB report.

Audit observed that despite the high incidences of suicides which requires strengthening of psychiatric services, NMHP's allocation and actual utilisation continued to stagnate at about ₹2 crore per annum.

7.7.2 Availability of Psychiatric Specialty services in the sampled Secondary and Tertiary Hospitals

The availability of Psychiatric specialty services and the annual average patient strength in the Psychiatric OPD during the period 2016-22 in the sampled Secondary and Tertiary hospitals is given in **Appendix 7.2.**

Audit observed the following:

- Psychiatric specialty services were not available in three[9] TKHs.
- Psychiatrists were not posted in all the TKHs/NTKHs.
- Psychiatrist drugs were not available in two[10] TKHs (as of January 2024).

7.7.3 NMHP in sampled Primary care institutions

The IPHS Guidelines for CHCs and PHCs stipulate that the NMHP as one of the essential services that must be offered in the CHCs/PHCs. The details of availability/non-availability of these NMHP services in the sampled Block PHCs/PHCs/Urban PHCs are given in **Appendix 7.3**.

8 Number of persons who commit suicide per lakh.
9 Andipatti, Manmangalam and Thandarampattu.
10 Andipatti and Manmangalam.

Audit observed that NMHP, despite being an essential service to be offered, the following services were not offered as given below:

- Early identification, diagnosis and treatment of Common Mental disorders were not done in seven[11] PHCs.
- IEC activities were not conducted in 10[12] PHCs.
- Trained Medical Officers to deliver basic mental healthcare using limited number of drugs and to provide referral service were not available in 10[13] PHCs.

7.8 Non-commissioning of National Centre for Ageing

The GoI, under the 'National Programme for Healthcare of the Elderly' approved (January 2016) setting up of two 'National Centre of Ageing' (NCA), one at Delhi and the other at Chennai. The Chennai Centre was to function under DME. The project involves setting up of 200 bedded hospital for elderly care with various specialty departments besides conducting of specialised courses in geriatric care. GoI released a total project cost of ₹151.17 crore during January 2016 to March 2022. The fund released by GoI included ₹116.31 crore towards non-recurring expenditure and ₹34.86 crore towards recurring cost on manpower, maintenance and training.

The status of the project, as of May 2022, was as follows:

- The civil construction was completed except for finishing works.
- Out of ₹23.36 crore released by GoI for equipment, GoTN released ₹19.50 crore to TNMSC. But, equipment worth only ₹6.36 crore were supplied as of March 2022 and balance ₹13.14 crore was lying with TNMSC as the requirement was not finalised.
- As against 423 posts (Regular 83, Contract 340) proposed by DME, GoTN had sanctioned only 20 posts so far (February 2021) out of which only two posts were filled up.

Thus, despite GoI releasing the funds well on time, due to delay in sanction of posts for the newly proposed NCA and procurement of required equipment, NCA, which is a prestigious national level project, did not start functioning, even after six years of its sanction in 2016.

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11 BPHCs at Nammiyampattu and Vettavalam; UPHC, Kadaimalaigundu; PHC, Poondi; APHC, Kadavur; Urban PHCs at Kumbakonam and Theni.

12 BPHCs at Karapattu, Nammiyampattu and Vettavalam; PHCs at Chakkarapalli, Kurangani and Poondi; APHC, Kadavur; Urban PHCs at Erode, Kumbakonam and Theni.

13 BPHCs at Modakuruchi, Nammiyampattu and Vettavalam; PHCs at Chakkarapalli, Kurangani and Poondi; APHC, Kadavur; Urban PHCs at Erode, Kumbakonam and Theni.

Government replied (August 2022) that the commissioning of NCA was delayed due to the COVID-19 pandemic. But Audit found that the required staff were not sanctioned even as of August 2022.

Recommendation 11:

Government should ensure that the National Centre for Ageing, constructed with GoI assistance, is commissioned without any further delay by sanctioning required manpower and equipment.

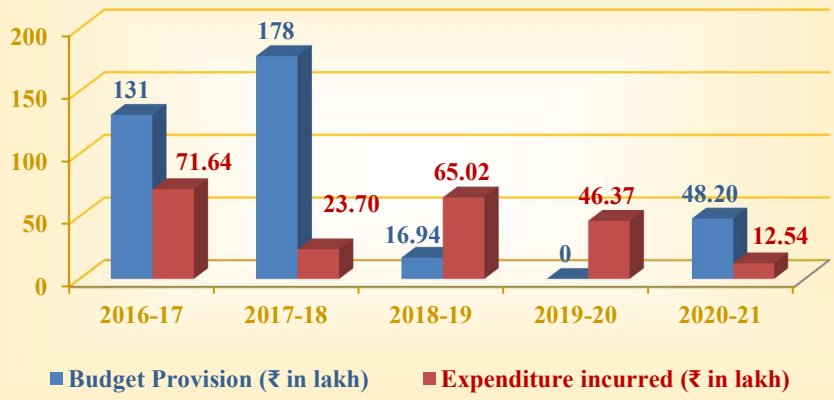
7.9 National Tobacco Control Programme

The National Tobacco Control Programme (NTCP) is being implemented in the State since 2007 under the Director of Public Health and Preventive Medicine in a phased manner in 20 districts.

7.9.1 Non-utilisation of funds under NTCP

The budget provision and expenditure under NTCP in Tamil Nadu during 2016-21 is given in **Exhibit 7.4**.

Exhibit 7.4: Budget provision and expenditure under NTCP



(Source: NHM, Tamil Nadu)

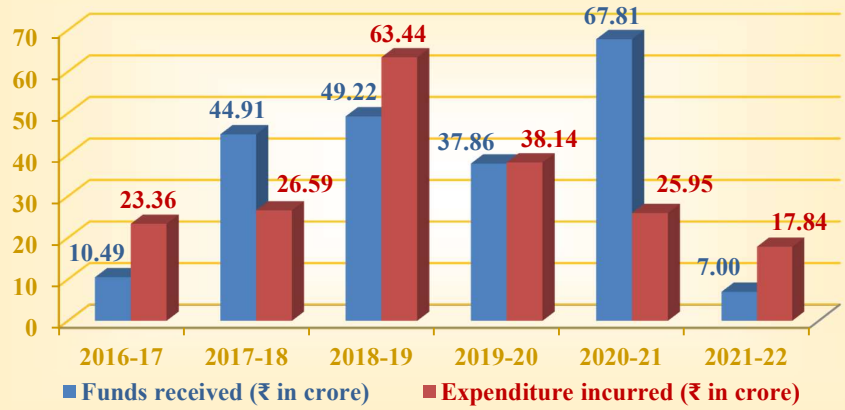
Audit observed that out of a budget allocation of ₹3.74 crore for 2016-21, only ₹2.19 crore was spent leaving 41 *per cent* of budget allocation as unspent.

7.10 National Programme for Control of Blindness

The Tamil Nadu State Blindness Control Society (TNSBCS) and the 38 District Blindness Control Societies (DBCS) together form a vertical programme under National Health Mission, Tamil Nadu, for implementing the activities of National Programme for Control of Blindness (NPCB) and GoI's Visual impairment programme.

The consolidated details of funds received by TNSBCS during the period 2016-22 is given in **Exhibit 7.5**.

Exhibit 7.5: Funds recieved and expended by TNSBCS during 2016-22



(Source: Details furnished by NHM Tamil Nadu)

Audit observed that out of ₹217.29 crore of funds received[14] during 2016-22, an amount of ₹195.32 crore (90 *per cent*) was spent and an amount of ₹35.57 crore remained unspent with TNSBCS as of March 2022.

7.11 *Janani Suraksha Yojana*

The *Janani Suraksha Yojana* (JSY), a 100 *per cent* centrally sponsored programme, integrates the cash assistance during delivery. A financial assistance of ₹700 is given to the beneficiary women at the time of her discharge from HCFs after delivery.

The summary of the number of mothers who were paid JSY in the sampled HCFs during the period 2016-22 is given in **Table 7.7** and the HCF wise details are given in **Appendix 7.4**.

Table 7.7: Summary of payment of JSY to mothers in the sampled HCFs

Sl. No.	Sampled HCFS		Institutional deliveries during 2016-22	Payment of JSY to mothers during 2016-22		
	Type	Number sampled		Paid	Not Paid	
					Number	Percentage
1	MCHs	5	2,05,677	1,38,656	67,021	*33*
2	DHQHs	5	80,227	69,675	10,952	*14*
3	TKHs	6	4,600	4,494	106	*2*
4	NTKHs	5	3,080	2,969	111	*4*
5	Block PHCs	10	6,416	6,282	134	*26*
6	Upgraded PHCs	3	4,049	4,049	0	*0*
7	PHCs	6	980	979	1	*0*
8	Urban PHCs	7	2,426	2,309	117	*5*
	Total	**47**	**3,07,455**	**2,29,013**	**78,442**	***26***

(Source: Details furnished by the respective HCFs)

[14] Excluding an opening balance of ₹13.60 crore for 2016-17.

As seen from **Table 7.7**, in the sampled 47 HCFs, JSY was not paid to 78,442 mothers (26 *per cent*) out of 3.07 lakh institutional deliveries. The major reasons given by the Heads of the sampled HCFs for non-payment of JSY was attributed to mismatching of the bank account number of beneficiaries, wrong details of bank account given, migration of beneficiaries, non-availability of Bank account details etc.

Audit observed that lack of awareness among beneficiaries and lack of proactive action by the officials of the HCFs were the possible reasons for the deficiencies in implementing this scheme.

7.12 *Janani Shishu Suraksha Karyakram*

Janani Shishu Suraksha Karyakram (JSSK) scheme aims to benefit pregnant women by reducing the 'Out Of Pocket Expenditure' on healthcare. JSSK guarantees zero expense deliveries, by providing free transport to access the HCF for delivery.

During 2016-21, out of 25,58,783 mothers who gave birth in Government HCFs in the State, only 11,67,974 (46 *per cent*) were provided transport to their residences by Government/outsourced vehicle under this Scheme. In the six sampled districts, out of 3,90,640 mothers who gave birth in Government institutions 1,93,951 (50 *per cent*) mothers were dropped back to residence by Government/outsourced vehicle under this Scheme.

Audit observed that effective action was not taken by PHCs/HCFs to arrange for provision of transport to the delivered mothers and new-born babies, causing sufferings and out of pocket expenditure on healthcare.

Recommendation 12:

Government should ensure that adequate awareness is created to ensure scheme benefits to all the eligible women under '*Janani Suraksha Yojana*' and '*Janani Shishu Suraksha Karyakram*'.

7.13 *Anaemia Mukt Bharat*

The reduction of anaemia is one of the important objectives of the *POSHAN Abhiyaan* launched in March 2018. Complying with the targets of *POSHAN Abhiyaan* and National Nutrition Strategy set by NITI Aayog, the *Anaemia Mukt Bharat* (AMB) strategy has been designed to reduce prevalence of anaemia by three percentage points per year among children, adolescents and women in the reproductive age group (15-49 years), by supplying iron and folic acid tablets.

The performance of the sampled districts and the State, against the targets set based on estimated need, is given in **Table 7.8**.

Table 7.8: Performance of sampled districts: *Anaemia Mukt Bharat* Scheme

Sampled districts	Percentage of target achieved				
	2017-18	2018-19	2019-20	2020-21	2021-22
Erode	*56.0*	*43.0*	*48.2*	*40.5*	*76.3*
Karur	*44.9*	*49.4*	*53.9*	*29.5*	*61.3*
Perambalur	*39.5*	*43.8*	*56.6*	*36.3*	*63.1*
Thanjavur	*32.6*	*38.1*	*46.4*	*31.3*	*28.6*
Theni	*35.6*	*70.2*	*60.2*	*33.5*	*63.7*
Tiruvannamalai	*41.3*	*53.1*	*71.3*	*57.2*	*72.0*
State Average	***45.6***	***50.0***	***51.5***	***50.0***	***64.2***

(Source: NHM data)

The performance under AMB during 2017-22 ranged from 45.6 *per cent* to 64.2 *per cent*. It was seen that out of ₹6.93 crore received during 2019-20 and 2020-21, the GoTN incurred an amount of ₹41.40 lakh (six *per cent*) and a balance of ₹6.52 crore remained unspent. It was noticed that the health workers covered only the students of Government and Government aided schools against the guidelines to cover all children in the age group of six to nineteen.

Thus, the poor achievement under this scheme negatively impacts the objective of eradicating anaemia.

7.14 Labour Room and Quality Improvement Initiative (LaQshya)

LaQshya Programme was launched in 2017 to improve quality of care in Labour Room and OTs in Government HCFs. In Tamil Nadu, LaQshya is being implemented in 188 facilities which include 22 MCHs, 31 DHQ hospitals, 73 Taluk hospitals and 62 PHCs. As of March 2022, State certification for LaQshya has been achieved by 115 Labour Rooms and 115 OTs and National certification has been achieved by 35 Labour Rooms and 35 OTs.

Fund amounting to ₹14.77 crore was released to NHM under the activity LaQshya till 2020-22. However, only 44 *per cent* i.e., ₹6.43 crore was incurred as expenditure during the period for upgrading the facilities in Labour Rooms and OTs under the Scheme. The percentage of expenditure against fund released was 5 *per cent*, 32 *per cent*, 6 *per cent* and 86 *per cent* during the years 2018-19, 2019-20, 2020-21 and 2021-22 respectively.

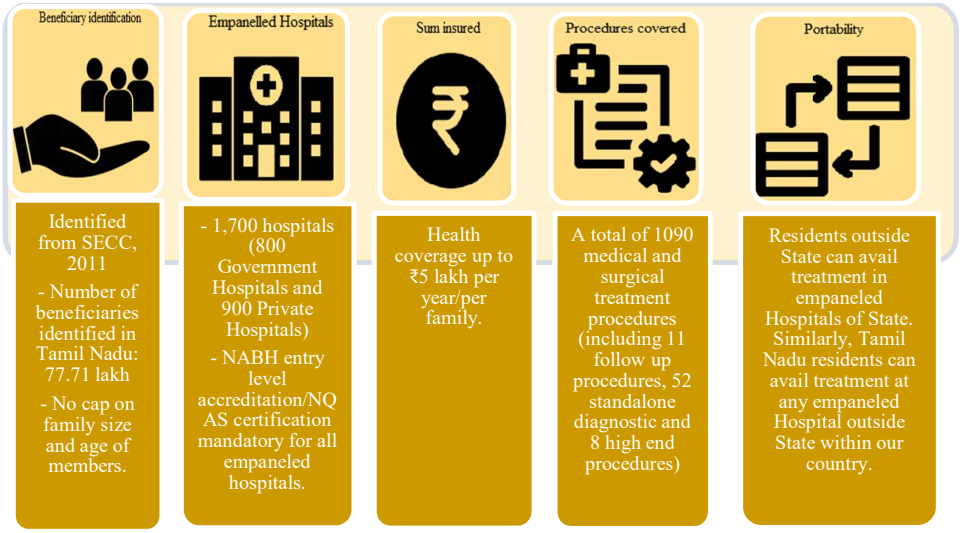
Audit observed that the Labour Rooms and OTs in the sampled PHCs and Hospitals are yet to be certified as LaQshya compliant, despite availability of funds.

7.15 *Pradhan Mantri Jan Arogya Yojana*

In September 2018, GoI launched *Pradhan Mantri Jan Arogya Yojana* (PMJAY), a health assurance scheme aimed at providing secondary and tertiary care hospitalisation. The National Health Agency (NHA) manages PMJAY at the national level. Meanwhile, GoTN was already implementing Chief

Minister's Comprehensive Health Insurance Scheme[15] (CMCHIS) covering all resident families of Tamil Nadu with annual family income of ₹72,000[16] or less. In September 2018, GoI and GoTN entered into a Memorandum of Understanding (MoU) for integrating PMJAY and CMCHIS (Scheme). The Project Director (PD), Tamil Nadu Health System Project (TNHSP), heads the implementation of the Scheme and is also designated as the State Health Agency (SHA). The Scheme is implemented through United India Insurance Company Limited (UIIC). GoI reimburses 60 *per cent* of the premium for these 77.71 lakh families and the remaining 40 *per cent* is borne by GoTN. The salient features of integrated CMCHIS PMJAY are as given in **Exhibit 7.6**.

Exhibit 7.6: Salient features of the integrated CMCHIS PMJAY



(Source: Policy Note of HFW Department 2022-23)

7.15.1 Selection, verification and registration of eligible beneficiaries

Based on Socio Economic Cast Census (SECC) 2011 data, GoI have identified 77.71 lakh beneficiary families for benefit under PMJAY in the State. Whereas, already 1.47 crore families were enrolled under CMCHIS. According to PMJAY guidelines for beneficiary identification, States covering a much larger population than the AB-PMJAY beneficiary list must link all AB-PMJAY beneficiaries with the State Scheme ID and Aadhaar within a definite time period. Data analysis by Audit revealed that, even after three years of roll-out of CMCHIS-PMJAY, only 29.27 lakh out of 77.71 lakh households (38 *per cent*) were identified with the State Scheme ID.

PD, TNHSP replied (March 2022) that TNeGA is in the process of matching the SECC database with PDS database for ration card numbers and aadhaar database will be seeded in the SECC data. Then the SECC database will be matched with CMCHIS-PMJAY database using 'Ration Card' and

15 CMCHIS was launched by GoTN in January 2012.

16 The income ceiling for enrolling public as beneficiary under the scheme has been increased from ₹72,000 to ₹1,20,000 vide GO (Ms) No.560 Health and Family Welfare (EAP1-1) Department, Dated:16-12-2021.

'Aadhaar Card' as the unique identifier. Audit observed that the process of matching the beneficiaries of the two schemes was progressing in a slower pace.

7.15.2 Accreditation of hospitals

According to CMCHIS guidelines, all empanelled hospitals are required to obtain entry level accreditation from NABH and to undergo facility assessment and attain quality standards to get NQAS certification within a period of 12 months from the date of empanelment. The hospitals which have already got NABH accreditation should also renew NABH periodically (i.e., every three years).

As on March 2022, the NABH accreditation has been obtained by only 330 out of 900 empanelled private hospitals (37 *per cent*). Out of the remaining 570 hospitals, the NABH accreditation had expired for 308 hospitals (34 *per cent*), 130 have applied for entry level accreditation (14 *per cent*) and 132 have not applied for accreditation (15 *per cent*).

The PD, TNHSP replied (March 2022) that the NABH accreditation of 242 hospitals had expired in 2020-21 during COVID-19 pandemic when the primary focus and goal of healthcare facilities turned out to be stabilising the COVID-19 cases. The reply further stated that TNHSP had issued notice to empanelled hospitals that have completed 12 months of empanelment and not applied for NABH accreditation.

7.15.3 Financial management

The details of financial outlay for the periods 7H to 10H[17] (from 23-09-2018 to 10-01-2022) are given in **Table 7.9**.

Table 7.9: Financial outlay of CMCHIS-PMJAY for the periods 7H to 10H

(₹ in crore)

Period with date	Premium/Grant-in-aid		Administrative expenses	
	GoI (NHA)	GoTN (SHA)	GoI (NHA)	GoTN (SHA)
7H (23-09-2018 to 10-01-2019)	293.32*	1,031.14**	11.66	0
8H (11-01-2019 to 10-01-2020)	441.77	1,031.14	0	0
9H (11-01-2020 to 10-01-2021)	0	1,031.14	0	0
10H (11-01-2021 to 10-01-2022)	359.81	1,031.14	0	35.77
Total	**1,094.90**	**4,124.56**	**11.66**	**35.77**

* GoI share is from 23 September 2018;

** GoTN share for full year from 11 January 2018 to 10 January 2019. GOI share is for 60 *per cent* of 77.71 lakh families. GoTN share shown above is for 1.47 crore families (₹699 per family) plus Pro-rata premium paid to UIIC every year for newly enrolled beneficiaries.

(Source: Details furnished by TNHSP)

[17] 7th Health Year to 10th Health Year.

7.15.4 Non-remittance of interest earned into GoI account

Premium account: As per the guidelines of premium account, if any interest is earned by the State Health Agency from the premium released by the GoI, the Central Government shall have the first right of claim of such interest earned and this amount shall be remitted to GoI or adjusted in future payments, as the case may be. However, interest accrued of ₹96 lakh between January 2020 and March 2021 were remitted to GoTN account without intimating the same to NHA. This is in contravention to the guidelines prescribed for the premium account.

The PD, TNHSP replied (March 2022) that action would be taken to remit the interest amount accrued in the escrow account to GoI in future. However, the reply is silent regarding the interest already remitted into GoTN account.

Administrative account: As per the guidelines of administrative expenses account, interest, if any, earned by the State Health Agency from the administrative expenses account released by the GoI, the Central Government shall have the first right of claim of such interest and this amount shall be transferred back to NHA. However, interest accrued of ₹4.56 crore (₹1.05 crore on 30 July 2019 and ₹3.51 crore on 16 March 2020) were remitted to GoTN account without intimating NHA. This is in contravention to the guidelines prescribed for the administrative expenses account.

The PD, TNHSP replied (March 2022) that action would be taken to remit the interest amount accrued in the escrow account to GoI in future. However, the reply is silent regarding the interest already remitted into GoTN account.

7.15.5 Non-refund of premium by UIIC to SHA

PMJAY prescribes operational guidelines for claim settlement ratio. However, SHA is following its own CMCHIS guidelines for claim settlement ratio. As per the CMCHIS guidelines Clause 13, the claim settlement ratio means, the Insurer must meet the 90 *per cent* of the premium paid as claim for any particular year. If the claim ratio is lesser than 90 *per cent* of the premium paid in any particular year, the difference between claim amount and the premium amount should be calculated. This amount should be refunded to SHA within 30 days after deducting 10 *per cent* towards administrative expenses from the calculated amount. If the claims amount is more than 90 *per cent* of the premium paid, the excess amount over and above 90 *per cent* would be paid by SHA to the insurance company.

On a scrutiny of records, audit observed that the claim ratio for the period January 2018 to January 2021 has not achieved 90 *per cent* and the amount to be refunded by UIIC to SHA is detailed in **Table 7.10**.

Table 7.10: Amount to be refunded by UIIC to SHA and by SHA to GoI

(₹ in crore)

Period with date	Amount to be refunded by UIIC	GoI share (3) =60 *per cent* of 53 *per cent** of CoI (2))
(1)	(2)	(3)
7H (11-01-2018 to 10-01-2019)	34.41	3.30**
8H (11-01-2019 to 10-01-2020)	1.30	0.41
9H (11-01-2020 to 10-01-2021)	199.31	63.38
Total	**235.02**	**67.09**
Amount to be retained by UIIC for settling outstanding claims	1.00	0.60
Remaining amount to be refunded by UIIC	234.02	66.49

* PMJAY families in the entire CMCHIS database are 53 *per cent* families. GoI shares 60 *per cent* of premium for these 53 *per cent* families.

** Calculated for 110 days since commencement of PMJAY scheme.

(Source: Details furnished by TNHSP)

Non-adhering of guidelines resulted in ₹234.02 crore with UIIC for more than two years. The PD, TNHSP replied (March 2022) that action was being taken to get the refund amount from UIIC.

National Leprosy Eradication Programme

CHAPTER VII
IMPLEMENTATION OF CENTRALLY SPONSORED SCHEMES

Revised National TB Control Programme
RNTCP

NATIONAL HEALTH MISSION
राष्ट्रीय स्वास्थ्य मिशन
TAMIL NADU

CHAPTER VII

IMPLEMENTATION OF CENTRALLY SPONSORED SCHEMES

Inadequate number of Urban PHCs resulted in shortfall in the conduct of outreach services under GoI funded National Urban Health Mission (NUHM) in the urban slums. Performance under the *Kayakalp*, a GoI scheme to certify HCFs was unsatisfactory as only 52 *per cent* of the HCFs were certified under the scheme during 2016-22. The GoI funded National Centre of Ageing did not commence functioning, even after six years of launching the project and availability of GoI funds therefor. While the financial performance under National Blindness Control programme was about 90 *per cent*, the performance under National Tobacco Control Programme had not taken off well. There were shortfalls in the provision of benefits to the women beneficiaries under '*Janani Suraksha Yojana*' and '*Janani Shishu Suraksha Karyakram*'. Despite availability of funds, GoTN incurred only six *per cent* of the funds released for '*Anaemia Mukt Bharat*' and only 14 *per cent* of the funds allotted under the 'Labour Room and Quality Improvement Initiative' Scheme.

7.1 Introduction

The National Health Mission[1] (NHM), launched by the GoI in 2005, envisaged achievement of universal access to equitable, affordable and quality healthcare services. NHM is implemented by the State Health Society[2] (SHS), headed by its Mission Director. At the District Level, SHS operates under the District Health Society (DHS) headed by District Collector as Chairman. DHS is responsible for planning, managing and monitoring all NHM programmes in the district. NHM expenditure is shared between the Central and State governments in the ratio of 60:40. Annual outlay under NHM is based on the state's Programme Implementation Plan[3]. The details of funds for the schemes implemented in the State under NHM during the period 2016-22 is given in **Table 7.1** and the various activities carried out under these schemes are given in **Appendix 7.1**.

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1 Includes NRHM and NUHM.

2 Formed by merging the existing societies for control of leprosy, tuberculosis and blindness except AIDS Control.

3 Includes Part I: NRHM RCH Flexipool, Part II: NUHM Flexipool, Part III: Flexible Pool for Communicable Diseases, Part IV: Flexible Pool for Non-communicable Diseases, Injury and Trauma and, Part V: Infrastructure Maintenance.

Table 7.1: Funds sanctioned, released and incurred under NHM

(₹ in crore)

Sl.No.	Details	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
1	Programme Implementation Plan proposed	1,914.01	2,373.68	1,950.74	2,384.97	2,661.77	2,708.82
2	Programme Implementation Plan approved	1,686.40	2,101.94	1,731.94	2,141.90	2,437.66	2,555.33
3	Opening balance	1,013.35	757.46	764.75	840.21	811.12	964.18
4	Funds sanctioned by GoI	1,095.39	1,251.39	1,445.44	1,667.97	2,441.98	2,751.24
5	Funds released by	**1,017.74**	**1,364.40**	**1,829.12**	**1,767.57**	**2,773.62**	**2,751.24**
	(a) GoI (60 *per cent*)	522.25	693.05	690.03	816.60	1,728.84	1,446.04
	(b) GoTN (40 *per cent*)	495.49	671.35	1,139.09	950.97	1,044.77	1,305.20
6	Bank interest / Internal transfer	2.87	225.66	23.73	23.04	18.09	13.55
7	**Total receipts** (3+5+6)	**2,033.96**	**2,347.52**	**2,617.60**	**2,630.82**	**3,602.82**	**3,728.97**
8	Expenditure incurred	1,276.50	1,511.37	1,777.40	1,818.18	2,638.45	2,446.95
9	Refund/Internal transfers	-	71.40	-	1.52	0.20	1.17
10	Unspent balance (7- (8+9))	**757.46**	**764.75**	**840.21**	**811.12**	**964.18**	**1,280.85**

(Source: Details furnished by NHM-TN)

The implementation of selected schemes in the State under NHM is discussed in the succeeding paragraphs.

7.2 Outreach Services in the National Urban Health Mission

The urban component of NHM, National Urban Health Mission (NUHM), provides support for outreach services that are targeted to slum dwellers and other vulnerable groups in towns and cities. Two types of outreach services are envisaged in NUHM *viz.*, Urban Health and Nutrition Days and Special Outreach Sessions through conduct of camps. The performance of the outreach services in the NUHM in the State and in the six sampled districts for the period 2016-22 is given in **Tables 7.2** and **7.3** respectively.

Table 7.2: Performance of NUHM's outreach services in the State during 2016-22

Year	Urban Health and Nutrition Days			Special Outreach Sessions		
	Target	Camps Conducted	Achievement in *per cent*	Target	Camps Conducted	Achievement in *per cent*
2016-17	28,224	12,819	*45*	15,210	9,344	*62*
2017-18	28,224	14,170	*50*	15,210	8,340	*55*
2018-19	28,224	14,660	*52*	15,210	9,328	*62*
2019-20	28,224	18,490	*66*	15,210	9,153	*61*
2020-21	28,224	9,893	*35*	15,210	2,256	*15*
2021-22	28,224	12,409	*44*	5,076	3,478	*69*
Total	**1,69,344**	**82,441**	*49*	**80,676**	**41,899**	*52*

(Source: Details furnished by NHM-TN)

Table 7.3: Performance of NUHM's outreach services in the sampled Districts during the period 2016-22

Sampled Districts	Urban Health and Nutrition Days			Special Outreach Sessions		
	Target	Camps Conducted	Achievement in *per cent*	Target	Camps Conducted	Achievement in *per cent*
Erode	4,032	2,966	*74*	2,112	779	*37*
Karur	1,584	959	*61*	768	606	*79*
Perambalur	360	209	*58*	192	116	*60*
Thanjavur	3,096	2,215	*72*	1,536	1,144	*74*
Theni	1,584	1,069	*67*	768	636	*83*
Tiruvannamalai	1,008	940	*93*	576	250	*43*
Total	**11,664**	**8,358**	*72*	**5,952**	**3,531**	*59*

(Source: Details furnished by NHM-TN)

The achievements under outreach services for Urban Health and Nutrition Days for the entire State ranged between 35 *per cent* and 66 *per cent* and for Special Outreach Sessions, it was between 15 *per cent* and 69 *per cent* during 2016-22.

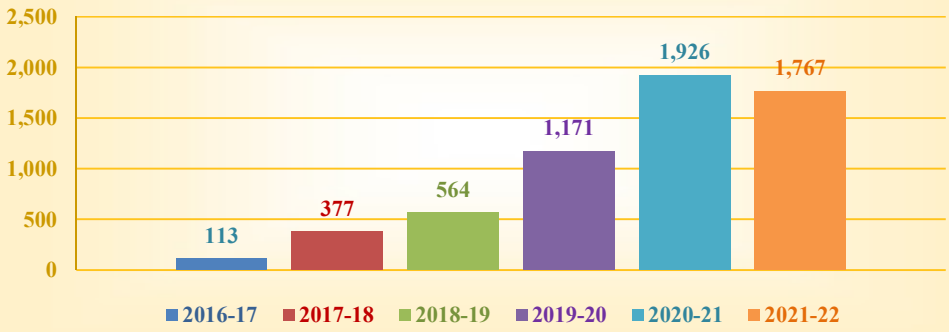
Audit found that the shortfall was attributable to the inadequate number of Urban PHCs, as discussed in **Paragraph 5.1.1**.

7.3 *Kayakalp*

In 2015, the GoI launched a National Initiative to give Awards 'KAYAKALP' (Rejuvenating Public Healthcare Facilities) to the Government Health Facilities that demonstrate high levels of cleanliness, hygiene and infection control. In Tamil Nadu, *Kayakalp* Award Programme is being implemented in all Secondary Care and Primary Care facilities through DMRHS and DPH respectively to improve the quality of healthcare services in Government Facilities. In the year 2015, this activity was initiated in Government District Head Quarters Hospitals. Since 2016, this activity gradually was extended to Sub District Hospitals, Community Health Centres and Primary Health Centres in all Districts. In the year 2019, this initiative was extended to Health Sub Centres functioning as Health Wellness Centres.

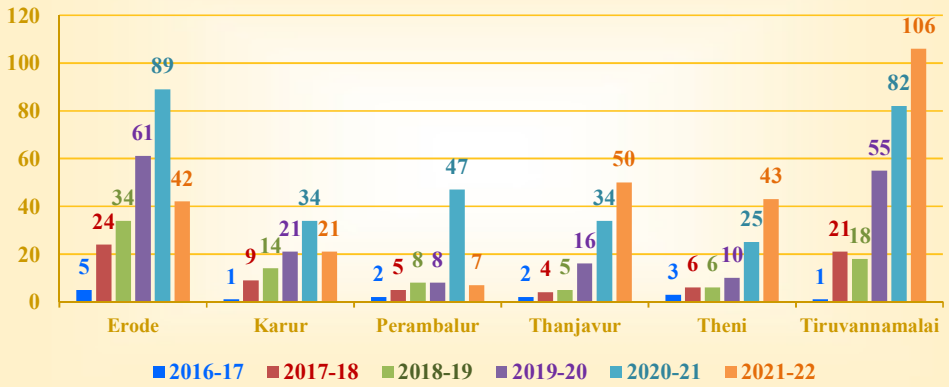
The number of Government HCFs in the entire State and the sampled districts, which were awarded *Kayakalp* during the period 2016-22 is given in **Exhibits 7.1** and **7.2.**

Exhibit 7.1: Number of HCFs awarded *Kayakalp* in the State during 2016-22



(Source: Data furnished by NHM-TN)

Exhibit 7.2: Number of HCFs awarded *Kayakalp* in the sampled Districts during 2016-22



(Source: Data furnished by NHM-TN)

GoTN had envisaged that the final outcome of the scheme is to make all the Government HCFs as *Kayakalp* certified by 2021. Audit, however, observed that as of March 2022, only 5,918 HCFs out of 11,323 HCFs[4] (i.e., only 52 *per cent*) have been *Kayakalp* certified.

7.4 Accreditation of hospitals and healthcare facilities

7.4.1 National Accreditation Board for Hospitals and Healthcare Providers

National Accreditation Board for Hospitals and Healthcare Providers (NABH) is a constituent board of Quality Council of India, set up to establish and operate accreditation programme for healthcare organisations. The accreditation standard for hospitals focuses on patient safety and quality of delivery of services by the hospitals in a changing healthcare environment.

[4] DHQHs - 37; TKHs and NTKHs - 256; PHC - 1830; HSCs - 8,713 and Urban PHCs - 487.

AYUSH hospital accreditation program is running in association with Ministry of AYUSH, GoI which encompasses relevant and comprehensive quality assurance standards for each system as per their individual system of medicine and requirements.

- NABH accreditation was not obtained for any of the MCHs functioning under the Department. In December 2018, the DME started the process for obtaining NABH entry level accreditation in respect of four[5] MCHs. The process involved appointment of Quality Managers, Quality Committees, training of staff, preparation of Manuals etc. The process was suspended during COVID-19 pandemic. The accreditation process is yet to be completed even as of August 2022.
- In respect of ISM, none of the hospitals and dispensaries functioning under DIMH was accredited under AYUSH Hospital accreditation program.
- Similarly, NABL accreditations for any of the drug testing and clinical laboratories were not obtained.

As NABH accreditation is achieved by aspiring HCFs after meeting the accreditation standards for hospitals, non-accreditation of Government HCFs would deny these HCFs an opportunity to upgrade their quality standards.

7.4.2 National Quality Assurance Standards

National Quality Assurance Standards (NQAS), developed under NHM, aimed to improve the quality of District/Taluk/Non-Taluk hospitals, CHCs, PHCs and Urban PHCs. Certified facilities were also provided financial incentives under NHM as recognition of their good work.

In 2018, GoTN planned to obtain NQAS certification for 594 HCFs, and earmarked ₹24.23 crore. As of March 2022, 145 HCFs were granted 'Quality Certification' for which GoTN incurred an expenditure of ₹20.47 crore out of ₹24.23 crore allotted. The status is shown in **Table 7.4.**

Table 7.4: Details of NQAS certification

Year	Funds allotted (₹ in crore)	Expenditure incurred (₹ in crore)	Number of public health facility planned for NQAS certification	Number of NQAS certified public health facilities					
				DHQH	TKH/ NTKH	CHC	PHC	Urban PHC	Total
2018-19	11.75	4.56	94	13	0	5	5	-	23
2019-20		3.49	117	1	12	15	22	-	50
2020-21*	-	-	254	-	-	-	-	-	-
2021-22	12.48	12.43	129	6	13	21	26	6	72
Total	**24.23**	**20.48**	**594**	**20**	**25**	**41**	**53**	**6**	**145**

* No NQAS assessment due to COVID pandemic
(Source: Details furnished by NHM)

[5] Dharmapuri, Kanyakumari, Tiruvannamalai and Theni.

Shortfall was due to ineffective handling of the certification process despite utilising the allotted funds.

Government stated (August 2022) that the certification process got delayed due to COVID-19 and non-availability of Consultants to manage the certification process.

7.5 Family Welfare Schemes

The National Family Welfare Programme (FWP) is implemented with the main objective of stabilising the population growth. The target and achievements of various FWP during the years 2016-22 are given in the **Table 7.5.**

Table 7.5: Target and achievements of Family Welfare Programmes during 2016-22

(In numbers)

Sl. No.	Programme	Target and achievement	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
1	Total Sterilisation	ELD*	4,00,000	4,00,000	4,00,000	3,50,000	3,50,000	3,50,000
		Actual	2,72,907	2,62,811	2,58,811	2,58,264	2,25,834	2,32,051
		***Per cent* w.r.t ELD**	***68***	***66***	***65***	***74***	***65***	***66***
2	Interval IUCD	ELD	4,00,000	1,50,000	1,80,000	1,60,000	1,60,000	1,60,000
		Actual	3,87,040	2,05,592	1,30,670	82,339	60,686	62,732
		***Per cent* w.r.t ELD**	***97***	***137***	***73***	***51***	***38***	***39***
3	PPIUCD**	ELD	2,50,000	2,50,000	2,70,000	2,40,000	2,40,000	2,40,000
		Actual	1,40,595	1,67,515	2,01,682	2,53,642	3,19,936	3,61,028
		***Per cent* w.r.t ELD**	***56***	***67***	***75***	***106***	***133***	***150***
4	Oral Pill Users	ELD	1,00,000	1,00,000	2,00,000	4,00,000	4,00,000	4,00,000
		Actual	57,608	45,823	34,478	29,727	29,652	27,417
		***Per cent* w.r.t ELD**	***58***	***46***	***17***	***7***	***7***	***7***
5	Contraceptive Condom Users	ELD	2,00,000	2,00,000	3,00,000	6,00,000	6,00,000	6,00,000
		Actual	91,785	88,281	98,673	76,686	67,902	75,984
		***Per cent* w.r.t ELD**	***46***	***44***	***33***	***13***	***11***	***13***

* ELD: Expected Level of Demand; **PPIUCD: Post-Partum Intra Uterine Contraceptive Devices

(Source: Family Welfare Bulletins)

It may be mentioned that the birth rate in the State has already been brought below the national average and also below the replacement rate. It was also found that the higher order births[6] has decreased from 7.9 in the year 2015 to 7.35 in 2020.

7.5.1 Lower compensation under Family Planning Indemnity Scheme

In May 2013, GoI launched the Family Planning Indemnity Scheme (FPIS) to provide compensation in the case of death of persons undergoing sterilization and cases of failure of sterilization. In October 2016, GoI, doubled the maximum compensation payable as ₹4 lakh in the case of death and compensation for failure of sterilization was also doubled to ₹60,000.

Accordingly, the Director of Family Welfare (DoFW) requested (March 2017 and September 2020) GoTN to enhance the quantum of compensation

[6] A woman having three or more children.

from 01 January 2017. GoTN, however, did not take any decision on the proposal. Audit found that during 2016-21, 26 sterilization deaths, 2,375 sterilization failures were reported in the State.

Audit observed that due to non-revision of rates as per GoI norms, the families of 2,401 persons were denied adequate compensation.

7.6 National Tuberculosis Elimination Programme

The National Tuberculosis Elimination Programme (NTEP) delivers Tuberculosis (TB) Care Services with a vision to achieve elimination of TB by the year 2025. The number of TB patients notified during the period 2016-22, both in Public and Private sector of the health systems in Tamil Nadu, is given in **Table 7.6**.

Table 7.6: Number of TB patients notified during 2016-22

Year	Public	Private	Total
2016	82,107	NA	82,107
2017	74,256	19,071	93,327
2018	75,415	29,502	1,04,917
2019	82,668	28,177	1,10,845
2020	54,013	16,291	70,304
2021	64,456	18,367	82,823
2022	71,896	21,983	93,879
Total	**5,04,811**	**1,33,391**	**6,38,202**

(Source: Details compiled from India TB Reports for the respective year)

One of the major objectives of NTEP is to reduce the estimated TB Incidence rate (per one lakh population) to 142 by 2020 and to 77 by 2022. Audit, however, observed that the TB case notification rate[7] was 86 in 2020 and increased to 121 during 2022.

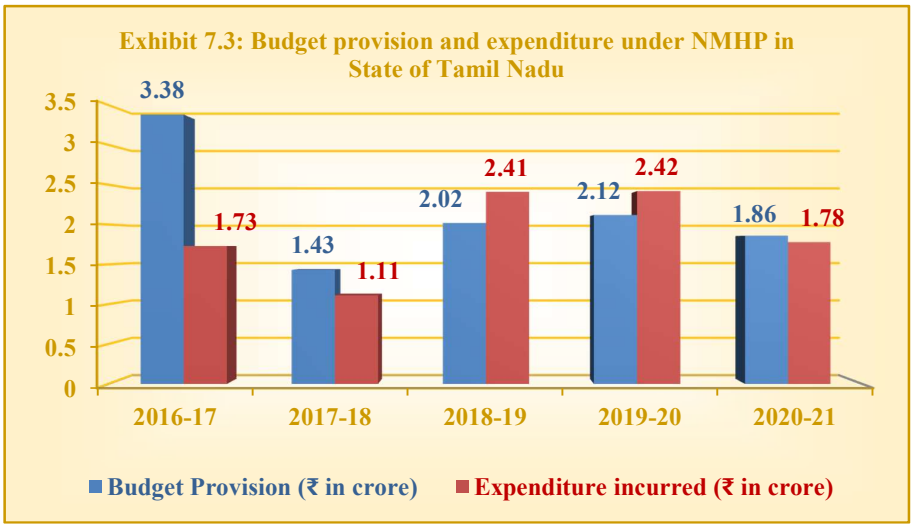
7.7 National Mental Health Programme

The National Mental Health Programme (NMHP) was launched (1982) by GoI to ensure the availability and accessibility of minimum mental healthcare for all. Under NMHP, the District Mental Health Program (DMHP) was launched in 1996 for early detection and treatment of common mental illnesses. In Tamil Nadu, DMHP is being implemented in 32 districts.

7.7.1 Non-utilisation of funds under NMHP

The budget provision and expenditure under NMHP for the period 2016-21 is given in **Exhibit 7.3**.

[7] As per India TB Reports for the years 2021 and 2023.



(Source: Details furnished by NHM, Tamil Nadu)

According to the National Crime Records Bureau (NCRB) Report for 2021, the rate of suicides[8] in Tamil Nadu is 26.4 per one lakh population against the national average of 12. In absolute terms, the State has the second highest number of reported suicides in the country after Maharashtra during 2019-21 as per NCRB report.

Audit observed that despite the high incidences of suicides which requires strengthening of psychiatric services, NMHP's allocation and actual utilisation continued to stagnate at about ₹2 crore per annum.

7.7.2 Availability of Psychiatric Specialty services in the sampled Secondary and Tertiary Hospitals

The availability of Psychiatric specialty services and the annual average patient strength in the Psychiatric OPD during the period 2016-22 in the sampled Secondary and Tertiary hospitals is given in **Appendix 7.2.**

Audit observed the following:

- Psychiatric specialty services were not available in three[9] TKHs.
- Psychiatrists were not posted in all the TKHs/NTKHs.
- Psychiatrist drugs were not available in two[10] TKHs (as of January 2024).

7.7.3 NMHP in sampled Primary care institutions

The IPHS Guidelines for CHCs and PHCs stipulate that the NMHP as one of the essential services that must be offered in the CHCs/PHCs. The details of availability/non-availability of these NMHP services in the sampled Block PHCs/PHCs/Urban PHCs are given in **Appendix 7.3**.

8 Number of persons who commit suicide per lakh.
9 Andipatti, Manmangalam and Thandarampattu.
10 Andipatti and Manmangalam.

Audit observed that NMHP, despite being an essential service to be offered, the following services were not offered as given below:

- Early identification, diagnosis and treatment of Common Mental disorders were not done in seven[11] PHCs.
- IEC activities were not conducted in 10[12] PHCs.
- Trained Medical Officers to deliver basic mental healthcare using limited number of drugs and to provide referral service were not available in 10[13] PHCs.

7.8 Non-commissioning of National Centre for Ageing

The GoI, under the 'National Programme for Healthcare of the Elderly' approved (January 2016) setting up of two 'National Centre of Ageing' (NCA), one at Delhi and the other at Chennai. The Chennai Centre was to function under DME. The project involves setting up of 200 bedded hospital for elderly care with various specialty departments besides conducting of specialised courses in geriatric care. GoI released a total project cost of ₹151.17 crore during January 2016 to March 2022. The fund released by GoI included ₹116.31 crore towards non-recurring expenditure and ₹34.86 crore towards recurring cost on manpower, maintenance and training.

The status of the project, as of May 2022, was as follows:

- The civil construction was completed except for finishing works.
- Out of ₹23.36 crore released by GoI for equipment, GoTN released ₹19.50 crore to TNMSC. But, equipment worth only ₹6.36 crore were supplied as of March 2022 and balance ₹13.14 crore was lying with TNMSC as the requirement was not finalised.
- As against 423 posts (Regular 83, Contract 340) proposed by DME, GoTN had sanctioned only 20 posts so far (February 2021) out of which only two posts were filled up.

Thus, despite GoI releasing the funds well on time, due to delay in sanction of posts for the newly proposed NCA and procurement of required equipment, NCA, which is a prestigious national level project, did not start functioning, even after six years of its sanction in 2016.

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11 BPHCs at Nammiyampattu and Vettavalam; UPHC, Kadaimalaigundu; PHC, Poondi; APHC, Kadavur; Urban PHCs at Kumbakonam and Theni.

12 BPHCs at Karapattu, Nammiyampattu and Vettavalam; PHCs at Chakkarapalli, Kurangani and Poondi; APHC, Kadavur; Urban PHCs at Erode, Kumbakonam and Theni.

13 BPHCs at Modakuruchi, Nammiyampattu and Vettavalam; PHCs at Chakkarapalli, Kurangani and Poondi; APHC, Kadavur; Urban PHCs at Erode, Kumbakonam and Theni.

Government replied (August 2022) that the commissioning of NCA was delayed due to the COVID-19 pandemic. But Audit found that the required staff were not sanctioned even as of August 2022.

Recommendation 11:

Government should ensure that the National Centre for Ageing, constructed with GoI assistance, is commissioned without any further delay by sanctioning required manpower and equipment.

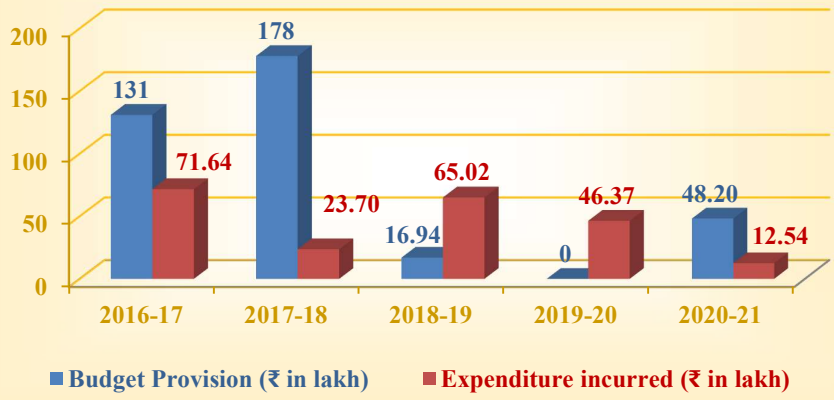
7.9 National Tobacco Control Programme

The National Tobacco Control Programme (NTCP) is being implemented in the State since 2007 under the Director of Public Health and Preventive Medicine in a phased manner in 20 districts.

7.9.1 Non-utilisation of funds under NTCP

The budget provision and expenditure under NTCP in Tamil Nadu during 2016-21 is given in **Exhibit 7.4**.

Exhibit 7.4: Budget provision and expenditure under NTCP



(Source: NHM, Tamil Nadu)

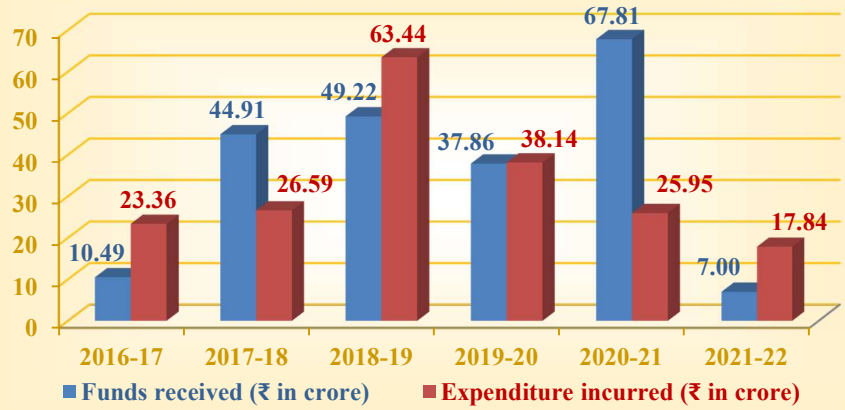
Audit observed that out of a budget allocation of ₹3.74 crore for 2016-21, only ₹2.19 crore was spent leaving 41 *per cent* of budget allocation as unspent.

7.10 National Programme for Control of Blindness

The Tamil Nadu State Blindness Control Society (TNSBCS) and the 38 District Blindness Control Societies (DBCS) together form a vertical programme under National Health Mission, Tamil Nadu, for implementing the activities of National Programme for Control of Blindness (NPCB) and GoI's Visual impairment programme.

The consolidated details of funds received by TNSBCS during the period 2016-22 is given in **Exhibit 7.5**.

Exhibit 7.5: Funds recieved and expended by TNSBCS during 2016-22



(Source: Details furnished by NHM Tamil Nadu)

Audit observed that out of ₹217.29 crore of funds received[14] during 2016-22, an amount of ₹195.32 crore (90 *per cent*) was spent and an amount of ₹35.57 crore remained unspent with TNSBCS as of March 2022.

7.11 *Janani Suraksha Yojana*

The *Janani Suraksha Yojana* (JSY), a 100 *per cent* centrally sponsored programme, integrates the cash assistance during delivery. A financial assistance of ₹700 is given to the beneficiary women at the time of her discharge from HCFs after delivery.

The summary of the number of mothers who were paid JSY in the sampled HCFs during the period 2016-22 is given in **Table 7.7** and the HCF wise details are given in **Appendix 7.4**.

Table 7.7: Summary of payment of JSY to mothers in the sampled HCFs

Sl. No.	Sampled HCFS		Institutional deliveries during 2016-22	Payment of JSY to mothers during 2016-22		
	Type	Number sampled		Paid	Not Paid	
					Number	Percentage
1	MCHs	5	2,05,677	1,38,656	67,021	*33*
2	DHQHs	5	80,227	69,675	10,952	*14*
3	TKHs	6	4,600	4,494	106	*2*
4	NTKHs	5	3,080	2,969	111	*4*
5	Block PHCs	10	6,416	6,282	134	*26*
6	Upgraded PHCs	3	4,049	4,049	0	*0*
7	PHCs	6	980	979	1	*0*
8	Urban PHCs	7	2,426	2,309	117	*5*
	Total	**47**	**3,07,455**	**2,29,013**	**78,442**	***26***

(Source: Details furnished by the respective HCFs)

[14] Excluding an opening balance of ₹13.60 crore for 2016-17.

As seen from **Table 7.7**, in the sampled 47 HCFs, JSY was not paid to 78,442 mothers (26 *per cent*) out of 3.07 lakh institutional deliveries. The major reasons given by the Heads of the sampled HCFs for non-payment of JSY was attributed to mismatching of the bank account number of beneficiaries, wrong details of bank account given, migration of beneficiaries, non-availability of Bank account details etc.

Audit observed that lack of awareness among beneficiaries and lack of proactive action by the officials of the HCFs were the possible reasons for the deficiencies in implementing this scheme.

7.12 *Janani Shishu Suraksha Karyakram*

Janani Shishu Suraksha Karyakram (JSSK) scheme aims to benefit pregnant women by reducing the 'Out Of Pocket Expenditure' on healthcare. JSSK guarantees zero expense deliveries, by providing free transport to access the HCF for delivery.

During 2016-21, out of 25,58,783 mothers who gave birth in Government HCFs in the State, only 11,67,974 (46 *per cent*) were provided transport to their residences by Government/outsourced vehicle under this Scheme. In the six sampled districts, out of 3,90,640 mothers who gave birth in Government institutions 1,93,951 (50 *per cent*) mothers were dropped back to residence by Government/outsourced vehicle under this Scheme.

Audit observed that effective action was not taken by PHCs/HCFs to arrange for provision of transport to the delivered mothers and new-born babies, causing sufferings and out of pocket expenditure on healthcare.

Recommendation 12:

Government should ensure that adequate awareness is created to ensure scheme benefits to all the eligible women under '*Janani Suraksha Yojana*' and '*Janani Shishu Suraksha Karyakram*'.

7.13 *Anaemia Mukt Bharat*

The reduction of anaemia is one of the important objectives of the *POSHAN Abhiyaan* launched in March 2018. Complying with the targets of *POSHAN Abhiyaan* and National Nutrition Strategy set by NITI Aayog, the *Anaemia Mukt Bharat* (AMB) strategy has been designed to reduce prevalence of anaemia by three percentage points per year among children, adolescents and women in the reproductive age group (15-49 years), by supplying iron and folic acid tablets.

The performance of the sampled districts and the State, against the targets set based on estimated need, is given in **Table 7.8**.

Table 7.8: Performance of sampled districts: *Anaemia Mukt Bharat* Scheme

Sampled districts	Percentage of target achieved				
	2017-18	2018-19	2019-20	2020-21	2021-22
Erode	*56.0*	*43.0*	*48.2*	*40.5*	*76.3*
Karur	*44.9*	*49.4*	*53.9*	*29.5*	*61.3*
Perambalur	*39.5*	*43.8*	*56.6*	*36.3*	*63.1*
Thanjavur	*32.6*	*38.1*	*46.4*	*31.3*	*28.6*
Theni	*35.6*	*70.2*	*60.2*	*33.5*	*63.7*
Tiruvannamalai	*41.3*	*53.1*	*71.3*	*57.2*	*72.0*
State Average	***45.6***	***50.0***	***51.5***	***50.0***	***64.2***

(Source: NHM data)

The performance under AMB during 2017-22 ranged from 45.6 *per cent* to 64.2 *per cent*. It was seen that out of ₹6.93 crore received during 2019-20 and 2020-21, the GoTN incurred an amount of ₹41.40 lakh (six *per cent*) and a balance of ₹6.52 crore remained unspent. It was noticed that the health workers covered only the students of Government and Government aided schools against the guidelines to cover all children in the age group of six to nineteen.

Thus, the poor achievement under this scheme negatively impacts the objective of eradicating anaemia.

7.14 Labour Room and Quality Improvement Initiative (LaQshya)

LaQshya Programme was launched in 2017 to improve quality of care in Labour Room and OTs in Government HCFs. In Tamil Nadu, LaQshya is being implemented in 188 facilities which include 22 MCHs, 31 DHQ hospitals, 73 Taluk hospitals and 62 PHCs. As of March 2022, State certification for LaQshya has been achieved by 115 Labour Rooms and 115 OTs and National certification has been achieved by 35 Labour Rooms and 35 OTs.

Fund amounting to ₹14.77 crore was released to NHM under the activity LaQshya till 2020-22. However, only 44 *per cent* i.e., ₹6.43 crore was incurred as expenditure during the period for upgrading the facilities in Labour Rooms and OTs under the Scheme. The percentage of expenditure against fund released was 5 *per cent*, 32 *per cent*, 6 *per cent* and 86 *per cent* during the years 2018-19, 2019-20, 2020-21 and 2021-22 respectively.

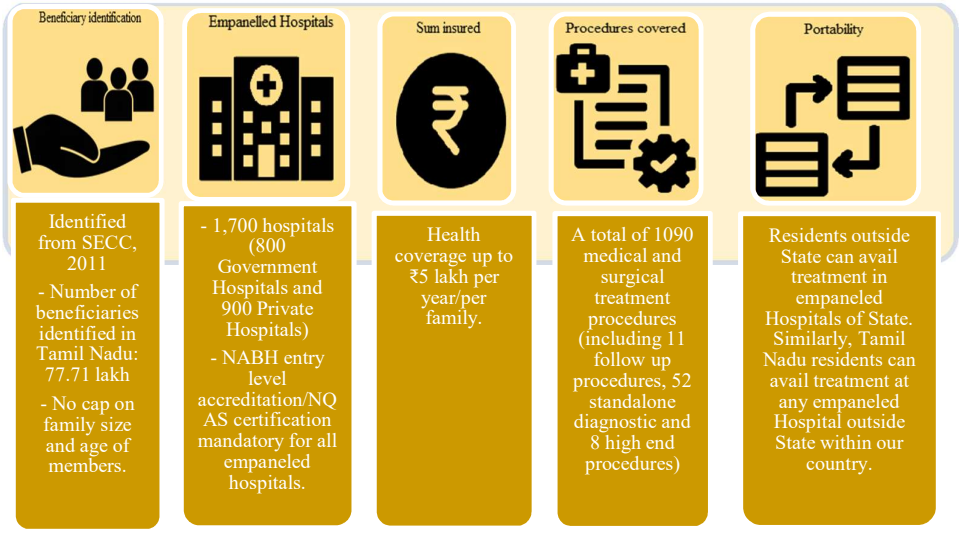
Audit observed that the Labour Rooms and OTs in the sampled PHCs and Hospitals are yet to be certified as LaQshya compliant, despite availability of funds.

7.15 *Pradhan Mantri Jan Arogya Yojana*

In September 2018, GoI launched *Pradhan Mantri Jan Arogya Yojana* (PMJAY), a health assurance scheme aimed at providing secondary and tertiary care hospitalisation. The National Health Agency (NHA) manages PMJAY at the national level. Meanwhile, GoTN was already implementing Chief

Minister's Comprehensive Health Insurance Scheme[15] (CMCHIS) covering all resident families of Tamil Nadu with annual family income of ₹72,000[16] or less. In September 2018, GoI and GoTN entered into a Memorandum of Understanding (MoU) for integrating PMJAY and CMCHIS (Scheme). The Project Director (PD), Tamil Nadu Health System Project (TNHSP), heads the implementation of the Scheme and is also designated as the State Health Agency (SHA). The Scheme is implemented through United India Insurance Company Limited (UIIC). GoI reimburses 60 *per cent* of the premium for these 77.71 lakh families and the remaining 40 *per cent* is borne by GoTN. The salient features of integrated CMCHIS PMJAY are as given in **Exhibit 7.6**.

Exhibit 7.6: Salient features of the integrated CMCHIS PMJAY



(Source: Policy Note of HFW Department 2022-23)

7.15.1 Selection, verification and registration of eligible beneficiaries

Based on Socio Economic Cast Census (SECC) 2011 data, GoI have identified 77.71 lakh beneficiary families for benefit under PMJAY in the State. Whereas, already 1.47 crore families were enrolled under CMCHIS. According to PMJAY guidelines for beneficiary identification, States covering a much larger population than the AB-PMJAY beneficiary list must link all AB-PMJAY beneficiaries with the State Scheme ID and Aadhaar within a definite time period. Data analysis by Audit revealed that, even after three years of roll-out of CMCHIS-PMJAY, only 29.27 lakh out of 77.71 lakh households (38 *per cent*) were identified with the State Scheme ID.

PD, TNHSP replied (March 2022) that TNeGA is in the process of matching the SECC database with PDS database for ration card numbers and aadhaar database will be seeded in the SECC data. Then the SECC database will be matched with CMCHIS-PMJAY database using 'Ration Card' and

15 CMCHIS was launched by GoTN in January 2012.

16 The income ceiling for enrolling public as beneficiary under the scheme has been increased from ₹72,000 to ₹1,20,000 vide GO (Ms) No.560 Health and Family Welfare (EAP1-1) Department, Dated:16-12-2021.

'Aadhaar Card' as the unique identifier. Audit observed that the process of matching the beneficiaries of the two schemes was progressing in a slower pace.

7.15.2 Accreditation of hospitals

According to CMCHIS guidelines, all empanelled hospitals are required to obtain entry level accreditation from NABH and to undergo facility assessment and attain quality standards to get NQAS certification within a period of 12 months from the date of empanelment. The hospitals which have already got NABH accreditation should also renew NABH periodically (i.e., every three years).

As on March 2022, the NABH accreditation has been obtained by only 330 out of 900 empanelled private hospitals (37 *per cent*). Out of the remaining 570 hospitals, the NABH accreditation had expired for 308 hospitals (34 *per cent*), 130 have applied for entry level accreditation (14 *per cent*) and 132 have not applied for accreditation (15 *per cent*).

The PD, TNHSP replied (March 2022) that the NABH accreditation of 242 hospitals had expired in 2020-21 during COVID-19 pandemic when the primary focus and goal of healthcare facilities turned out to be stabilising the COVID-19 cases. The reply further stated that TNHSP had issued notice to empanelled hospitals that have completed 12 months of empanelment and not applied for NABH accreditation.

7.15.3 Financial management

The details of financial outlay for the periods 7H to 10H[17] (from 23-09-2018 to 10-01-2022) are given in **Table 7.9**.

Table 7.9: Financial outlay of CMCHIS-PMJAY for the periods 7H to 10H

(₹ in crore)

Period with date	Premium/Grant-in-aid		Administrative expenses	
	GoI (NHA)	GoTN (SHA)	GoI (NHA)	GoTN (SHA)
7H (23-09-2018 to 10-01-2019)	293.32*	1,031.14**	11.66	0
8H (11-01-2019 to 10-01-2020)	441.77	1,031.14	0	0
9H (11-01-2020 to 10-01-2021)	0	1,031.14	0	0
10H (11-01-2021 to 10-01-2022)	359.81	1,031.14	0	35.77
Total	**1,094.90**	**4,124.56**	**11.66**	**35.77**

* GoI share is from 23 September 2018;

** GoTN share for full year from 11 January 2018 to 10 January 2019. GOI share is for 60 *per cent* of 77.71 lakh families. GoTN share shown above is for 1.47 crore families (₹699 per family) plus Pro-rata premium paid to UIIC every year for newly enrolled beneficiaries.

(Source: Details furnished by TNHSP)

[17] 7th Health Year to 10th Health Year.

7.15.4 Non-remittance of interest earned into GoI account

Premium account: As per the guidelines of premium account, if any interest is earned by the State Health Agency from the premium released by the GoI, the Central Government shall have the first right of claim of such interest earned and this amount shall be remitted to GoI or adjusted in future payments, as the case may be. However, interest accrued of ₹96 lakh between January 2020 and March 2021 were remitted to GoTN account without intimating the same to NHA. This is in contravention to the guidelines prescribed for the premium account.

The PD, TNHSP replied (March 2022) that action would be taken to remit the interest amount accrued in the escrow account to GoI in future. However, the reply is silent regarding the interest already remitted into GoTN account.

Administrative account: As per the guidelines of administrative expenses account, interest, if any, earned by the State Health Agency from the administrative expenses account released by the GoI, the Central Government shall have the first right of claim of such interest and this amount shall be transferred back to NHA. However, interest accrued of ₹4.56 crore (₹1.05 crore on 30 July 2019 and ₹3.51 crore on 16 March 2020) were remitted to GoTN account without intimating NHA. This is in contravention to the guidelines prescribed for the administrative expenses account.

The PD, TNHSP replied (March 2022) that action would be taken to remit the interest amount accrued in the escrow account to GoI in future. However, the reply is silent regarding the interest already remitted into GoTN account.

7.15.5 Non-refund of premium by UIIC to SHA

PMJAY prescribes operational guidelines for claim settlement ratio. However, SHA is following its own CMCHIS guidelines for claim settlement ratio. As per the CMCHIS guidelines Clause 13, the claim settlement ratio means, the Insurer must meet the 90 *per cent* of the premium paid as claim for any particular year. If the claim ratio is lesser than 90 *per cent* of the premium paid in any particular year, the difference between claim amount and the premium amount should be calculated. This amount should be refunded to SHA within 30 days after deducting 10 *per cent* towards administrative expenses from the calculated amount. If the claims amount is more than 90 *per cent* of the premium paid, the excess amount over and above 90 *per cent* would be paid by SHA to the insurance company.

On a scrutiny of records, audit observed that the claim ratio for the period January 2018 to January 2021 has not achieved 90 *per cent* and the amount to be refunded by UIIC to SHA is detailed in **Table 7.10**.

Table 7.10: Amount to be refunded by UIIC to SHA and by SHA to GoI

(₹ in crore)

Period with date	Amount to be refunded by UIIC	GoI share (3) =60 *per cent* of 53 *per cent** of CoI (2))
(1)	(2)	(3)
7H (11-01-2018 to 10-01-2019)	34.41	3.30**
8H (11-01-2019 to 10-01-2020)	1.30	0.41
9H (11-01-2020 to 10-01-2021)	199.31	63.38
Total	**235.02**	**67.09**
Amount to be retained by UIIC for settling outstanding claims	1.00	0.60
Remaining amount to be refunded by UIIC	234.02	66.49

* PMJAY families in the entire CMCHIS database are 53 *per cent* families. GoI shares 60 *per cent* of premium for these 53 *per cent* families.

** Calculated for 110 days since commencement of PMJAY scheme.

(Source: Details furnished by TNHSP)

Non-adhering of guidelines resulted in ₹234.02 crore with UIIC for more than two years. The PD, TNHSP replied (March 2022) that action was being taken to get the refund amount from UIIC.

CHAPTER IX

SUSTAINABLE DEVELOPMENT GOAL-3

CHAPTER IX

SUSTAINABLE DEVELOPMENT GOAL-3

Three out of the 13 SDG-3 targets were already achieved. Performance under non-communicable diseases, substance abuse and pollution and poisoning continued to be matters of concern. Monitoring of SDG-3 attainment was incomplete as performance indicators were not set for measuring achievement of one target, and 11 indicators were not monitored after initial baseline survey in 2015-16 and three indicators were not monitored after 2017-18.

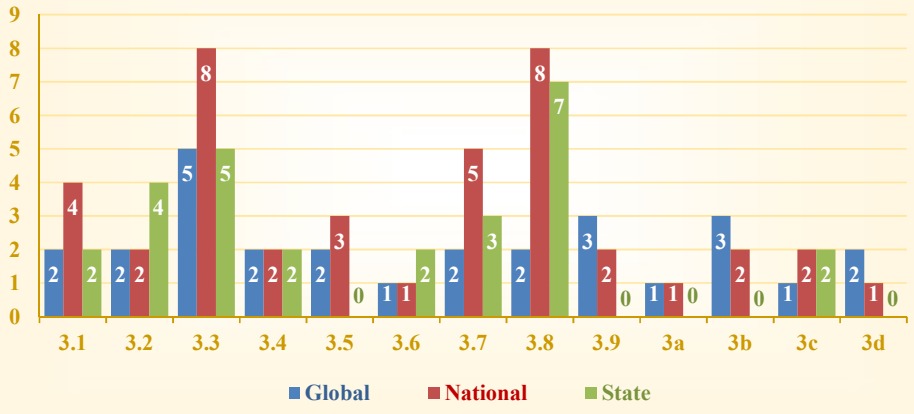
9.1 Sustainable Development Goals

The 2030 agenda of the United Nations (UN) comprised of 17 Sustainable Development Goals (SDGs) and associated 169 targets. The SDGs are a comprehensive list of global goals integrating social, economic and environmental dimensions of development.

India is committed to implementing SDGs. At the national level, NITI Aayog provides the leadership, and the Ministry of Statistics and Programme Implementation (MoSPI) developed a National Indicator Framework (NIF) for monitoring the goals and targets of SDGs.

SDG-3 on 'Good Health and Wellbeing' focuses on Health and Family Welfare. The 13 targets to be achieved under SDG-3 are given in **Appendix 9.1**. Further, a total of 41 indicators **(Appendix 9.2)** were identified at national level to measure and monitor the progress of these 13 targets. The number of indicators formulated/adopted globally, nationally by MoSPI and the State of Tamil Nadu, is given in **Exhibit 9.1**.

Exhibit 9.1: Number of indicators formulated/adopted for Targets to be achieved under SDG-3



(Source: MoSPI's SDG - National Indicator Framework Version 3.0 (as on 31-03-2021))

The details of budgeting for SDGs and departments/Schemes mapped in the State is given in **Table 9.1**.

Table 9.1: Budget, Expenditure and Programmes/Schemes mapped for SDG-3

Particulars	For the period 2018-21
Number of Departments mapped	26
Number of Programmes/Schemes mapped	38
Budget estimate	No Separate budgetary allocation for SDG as it is a part of budget for HFW Department.
Revised estimates	
Actual expenditure	
Percentage of growth of expenditure (year on year basis)	

(Source: TNSDG portal)

9.2 Non-monitoring of the SDG-3 Goals

In Tamil Nadu, the monitoring of the SDG-3 goal attainment is done by a High-Power Committee which is headed by the Chief Secretary. The Planning and Development Department is the nodal agency for monitoring. The State has finalised its monitoring framework for the SDG-3 at the State level and at the district and block levels. With a view to monitoring the progress, an IT based tool was developed to capture data for the indicators.

Measuring and monitoring the performance under the 13 targets of SDG-3 is carried out using indicators to measure the performance. NITI Aayog designed 41 indicators to measure the performance under the 13 targets set under SDG-3 on 'Good Health and Wellbeing'.

It was, however, seen that performance indicators were not set for measuring achievement of one target, and 11 indicators were not monitored after initial baseline survey in 2015-16 and three indicators were not monitored after 2017-18, as given in **Table 9.2**.

Table 9.2: SDG-3 targets and indicators monitoring

Target	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.a	3.b	3.c	3.d	Total
Number of indicators devised by GoI	4	2	8	2	3	1	5	8	2	1	2	2	1	41
Number of indicators not monitored after 2015-16	-	-	1	-	3	-	1	1	2	1	1	1		11
Number of indicators not monitored after 2017-18	-	-	1	2	-	-	-	-	-	-	-	-	-	3

(Source: SDG Portal of Planning and Development Department)

Specific reasons for not monitoring the performance under all the indicators were not furnished to Audit.

Thus, GoTN lacked mechanisms to monitor the performance indicators for SDG-3 goals.

9.3 Performance of indicators for SDG-3

The targets and achievements of some of the major indicators are given in **Table 9.3** and the statuses of achievement of the 13 targets under SDG-3 are given in **Appendix 9.3**.

Table 9.3: Targets and achievements of some major indicators under SDG-3

Category	Indicators	Target	Current Status
Maternity and Child Health	Maternal Mortality Rate	70	54
	Infant Mortality Rate	25	13
	Neonatal Mortality Rate	12	9
Non-Communicable Diseases	Reduce premature mortality by one-third	1,40,000	98,859
Trauma/Injuries	Reduce RTA by 50 *per cent* by 2030	8,125	17,473

(Source: Policy Note 2023-24)

Audit observed that:

- Indicators pertaining to four[1] out of the thirteen targets were not monitored. Therefore, it is not known to Government where the State stands in respect of these four targets.
- No indicator was available to measure achievement under one target (Target 13 - Health risk management)
- Three out of the 13 targets were already achieved (Maternal mortality, Neonatal mortality, access to reproductive healthcare)
- In respect of two other targets, the State had significant achievements (universal health coverage and death due to road traffic accidents).
- It was, however, a matter of concern that in respect of three other targets, *viz.,* non-communicable diseases, substance abuse and Pollution and poisoning, there were no improvement, rather there were deterioration.

Government did not furnish a specific reply for not monitoring performance relating to all 13 targets.

Recommendation 14:

Government should ensure that all indicators devised by NITI Aayog are employed to monitor performance under SDG-3.

(D. JAISANKAR)
Principal Accountant General (Audit-I),
Tamil Nadu

Chennai
The 22 July 2024

Countersigned

(GIRISH CHANDRA MURMU)
Comptroller and Auditor General of India

New Delhi
The 25 July 2024

[1] Pollution, Tobacco control, Research and Development, and Funding for health.

APPENDICES

Appendix 1.1

(Reference: Paragraph 1.9; Page 7)

List of sampled Hospitals and Health Care Facilities

Sl. No.	Sampled district	Tertiary care hospitals		Secondary care Hospitals			Primary care Health facilities		
		Sl. No.	Name of the Hospital	Sl. No.	Name of the Hospital	DHQH / TKH / NTKH	Sl. No.	Name of the PHC / UPHC/ Urban PHC	Type*
1	Erode	1.	GMCH, Erode	1.	Erode	DHQH	1.	Chennimalai	BPHC
				2.	Bhavani	TKH	2.	Modakurchi	BPHC
				3.	Kavandapadi	NTKH	3.	Sivagiri	BPHC
							4.	Thingalur	BPHC
							5.	Erode (Gandhiji Road)	Urban PHC
							6.	Gobichettipalaiyam Town	Urban PHC
2	Karur	2.	GMCH, Karur	4.	Manmangalam	TKH	7.	Chinnadharapuram	BPHC
				5.	Velayuthapalayam	NTKH	8.	Kadavur	APHC
							9.	Karur Town (Azad Road)	Urban PHC
3	Perambalur			6.	Perambalur	DHQH	10.	Ammapalayam	UPHC
				7.	Karai	TKH	11.	Kaikalathur	PHC
4	Thanjavur	3.	GMCH, Thanjavur	8.	Kumbakonam	DHQH	12.	Naducauvery	BPHC
				9.	Orathanadu	TKH	13.	Vallam	BPHC
				10.	Thirukkattupalli	NTKH	14.	Chakkarapalli	PHC
							15.	Poondi	PHC
							16.	Kumbakonam Town (EVRM)	Urban PHC
							17.	Thanjavur (Kallukulam)	Urban PHC
5	Theni	4.	GMCH, Theni	11.	Periyakulam	DHQH	18.	Kadamalaigundu	UPHC
				12.	Andipatti	TKH	19.	Kurangani	PHC
				13.	Chinnamanur	NTKH	20.	Theni Town (Bommayagoundan-patti)	Urban PHC
6	Tiruvanna-malai	5.	GMCH, Tiruvanna-malai	14.	Cheyyar	DHQH	21.	Vettavalam	BPHC
				15.	Thandarampattu	TKH	22.	Jamunamarathur	UPHC
				16.	Thanipadi	NTKH	23.	Karapattu	BPHC
							24.	Nammiyampattu	BPHC
							25.	Santhavasal	PHC
							26.	Tiruvannamalai Town (Central)	Urban PHC

* DHQH: District Head Quarters Hospital; TKH: Taluk Hospital; NTKH: Non-Taluk Hospital; BPHC: Block Primary Health Centre; UPHC: Upgraded Primary Health Centre; PHC: Primary Health Centre; APHC: Additional PHC

Appendix 2.1
(Reference: Paragraphs 2.2 and 5.1.2; Pages 13 and 72)
Details of vacancies in all Medical College Hospitals in the State as of March 2022

Sl. No	Medical College Hospital	Year of starting and Number of MBBS seats sanctioned		Doctors[1]			Nurses			Paramedics			Others		
		Year of starting	Number of MBBS seats	SS	PIP	Vacant	SS	PIP	Vacant	SS	PIP	Vacant	SS	PIP	Vacant
1	Rajiv Gandhi Government General Hospital, Chennai	1835	250	29	23	6	759	757	2	462	312	150	1,443	560	883
2	Government Stanley Hospital, Chennai	1938	250	17	14	3	376	361	15	250	131	119	757	298	459
3.	Government Rajaji Hospital, Madurai	1954	250	29	27	2	577	567	10	310	221	89	957	423	534
4	Government Thanjavur Medical College Hospital (MCH), Thanjavur	1959	150	34	18	16	339	336	3	161	89	72	353	164	189
5	Government Kilpauk MCH, Chennai	1960	150	36	29	7	233	222	11	120	78	42	407	119	288
6	Government Chengalpattu MCH, Chengalpattu	1965	100	25	17	8	158	154	4	82	52	30	255	130	125
7	Government Tirunelveli MCH, Tirunelveli	1965	250	27	25	2	399	389	10	211	119	92	457	212	245
8	Government Coimbatore MCH, Coimbatore	1966	200	28	27	1	270	259	11	149	94	55	436	165	271
9	Government MCH, Cuddalore	1985	150	2	1	1	311	311	0	236	236	0	403	403	0
10	Government Mohan Kumaramangalam MCH, Salem	1986	100	19	18	1	350	340	10	210	93	117	490	209	281
11	Government Medical College & Hospital, Perundurai	1992	100	55	42	13	101	101	0	108	59	49	131	74	57
12	K A P Viswanathan Government Medical College, Trichy	1998	150	24	18	6	160	156	4	71	54	17	259	128	131

[1] Does not include faculty members of the Medical College who may also be involved in extending medical services.

Sl. No	Medical College Hospital	Year of starting and Number of MBBS seats sanctioned		Doctors			Nurses			Paramedics			Others		
		Year of starting	Number of MBBS seats	SS	PIP	Vacant	SS	PIP	Vacant	SS	PIP	Vacant	SS	PIP	Vacant
13	Government Thoothukudi MCH, Thoothukudi	2000	150	15	12	3	127	122	5	55	36	19	177	102	75
14	Kanniyakumari Government MCH, Kanniyakumari	2004	150	25	22	3	93	90	3	52	42	10	125	66	59
15	Government Vellore MCH, Vellore	2005	100	39	26	13	165	161	4	54	43	11	224	89	135
16	Government Theni MCH, Theni	2006	100	26	19	7	313	306	7	127	56	71	135	75	60
17	Government Dharmapuri MCH, Dharmapuri	2008	100	24	18	6	289	281	8	144	64	80	318	120	198
18	Government Villupuram MCH, Villupuram	2010	100	40	22	18	303	295	8	134	65	69	367	171	196
19	Government Thiruvarur MCH, Thiruvarur	2010	100	21	8	13	287	265	22	131	53	78	361	141	220
20	Government Sivagangai MCH, Sivagangai	2012	100	13	8	5	304	300	4	144	71	73	308	78	230
21	Government Tiruvannamalai MCH, Tiruvannamalai	2013	100	28	14	14	208	198	10	78	38	40	192	43	149
22	Tamil Nadu Government Multi Super Speciality Hospital, Omandurar Govt. Estate, Chennai	2015	100	98	93	5	162	162	0	61	46	15	29	17	12
23	Government Medical College and ESI Hospital, Coimbatore	2016	100	104	96	8	290	285	5	124	71	53	274	72	202
24	Government MCH (GMCH), Pudukottai	2017	150	38	15	23	292	268	24	106	36	70	282	63	219
25	GMCH, Karur	2019	150	35	20	15	253	225	28	134	53	81	399	61	338
26	GMCH, Ramanathapuram	2021	100	32	26	6	219	198	21	82	37	45	268	58	210
27	GMCH, Tiruppur	2021	100	43	39	4	218	189	29	62	31	31	189	35	154

Sl. No	Medical College Hospital	Year of starting and Number of MBBS seats sanctioned		Doctors			Nurses			Paramedics			Others		
		Year of starting	Number of MBBS seats	SS	PIP	Vacant	SS	PIP	Vacant	SS	PIP	Vacant	SS	PIP	Vacant
28	GMCH, Tiruvallur	2021	100	44	35	9	206	179	27	63	19	44	201	24	177
29	GMCH, Namakkal	2021	100	42	40	2	194	151	43	47	22	25	153	22	131
30	GMCH, Virudhunagar	2021	150	33	27	6	177	177	0	47	24	23	154	30	124
31	GMCH, The Nilgiris	2021	150	33	23	10	192	131	61	67	28	39	250	32	218
32	GMCH, Kallakurichi	2021	150	11	8	3	184	142	42	63	13	50	185	15	170
33	GMCH, Dindugul	2021	150	47	42	5	227	221	6	69	32	37	246	60	186
34	GMCH, Nagapattinam	2021	150	29	18	11	211	164	47	73	32	41	212	44	168
35	GMCH, Ariyalur	2021	150	8	6	2	173	163	10	67	16	51	190	9	181
36	GMCH, Krishnagiri	2021	150	50	47	3	205	175	30	62	23	39	235	39	196
		Total	**5,050**	**1,203**	**943**	**260**	**9,325**	**8,801**	**524**	**4,416**	**2,489**	**1,927**	**11,822**	**4,351**	**7,471**

(Source: Details furnished by DME)

Appendix 2.2

(Reference: Paragraph 2.2; Page 13)

Details of sanctioned strength and persons-in-position of Specialist doctors in the District Headquarters hospitals as of March 2022

Department	SS / PIP	Coimbatore	Cuddalore	Dharmapuri	Erode	Kancheepuram	Kanyakumari	Madurai	Perambalur	Ranipet	Salem	Sivaganga	Tenkasi	Thanjavur	Theni	Thoothukudi	Tiruchirapalli	Tiruvannamalai	Thiruvarur	Total
Dental	SS	1	2	1	3	1	1	4	2	1	1	1	1	1	1	1	1	1	1	**25**
	PIP	1	2	1	3	1	1	4	2	1	1	0	1	1	1	1	1	1	0	**23**
Dermato-logy & Venereo-logy	SS	1	1	0	2	3	1	1	1	2	1	0	1	2	1	1	1	1	1	**21**
	PIP	0	1	0	2	3	1	1	3	2	1	0	1	2	1	2	2	1	1	**24**
ENT	SS	1	3	3	3	2	2	1	3	1	1	0	1	1	1	1	1	1	0	**26**
	PIP	0	7	3	2	9	2	1	7	1	2	0	1	0	1	2	4	0	0	**42**
General Medicine	SS	6	11	1	9	9	5	3	7	1	9	2	8	4	7	7	8	1	2	**100**
	PIP	2	6	1	5	6	5	3	7	1	2	2	2	3	3	4	3	1	0	**56**
General Surgery	SS	3	5	2	6	5	2	3	4	1	2	5	3	6	3	3	3	2	2	**60**
	PIP	3	4	2	7	6	2	3	7	0	3	5	5	4	2	5	3	2	2	**65**
Obstet-rics & Gynae-cology	SS	5	18	4	9	10	7	15	8	4	4	2	6	7	5	7	4	4	11	**130**
	PIP	8	9	4	10	11	7	15	6	4	8	2	4	7	5	6	6	4	10	**126**
Ophthal-mology	SS	1	2	0	3	2	2	1	2	4	2	0	2	2	2	2	2	2	2	**33**
	PIP	2	8	0	5	11	2	1	3	4	3	0	2	2	1	3	4	0	2	**53**
Ortho-paedics	SS	2	3	1	5	5	3	5	3	3	1	1	1	4	1	1	1	3	2	**45**
	PIP	2	11	1	5	6	3	5	8	3	3	1	7	5	4	4	3	3	2	**76**
Paedia-trics	SS	5	8	3	12	6	3	2	7	3	2	3	5	6	3	5	6	4	2	**85**
	PIP	7	11	3	15	7	3	2	8	3	3	3	8	7	5	7	2	4	2	**100**
Psychia-try	SS	2	2	2	4	7	2	2	4	6	3	2	2	2	6	3	2	5	2	**58**
	PIP	3	4	2	3	6	2	2	3	6	2	2	1	2	5	3	2	5	2	**55**
Others	SS	8	39	4	46	8	8	1	36	8	9	8	16	10	10	18	10	9	7	**255**
	PIP	5	31	4	20	8	8	1	15	8	6	7	13	11	9	12	9	9	7	**183**
TOTAL	SS	**35**	**94**	**21**	**102**	**58**	**36**	**38**	**77**	**34**	**35**	**24**	**46**	**45**	**40**	**49**	**39**	**33**	**32**	**838**
	PIP	**33**	**94**	**21**	**77**	**74**	**36**	**38**	**69**	**33**	**34**	**22**	**45**	**44**	**37**	**49**	**39**	**30**	**28**	**803**

(Source: Details furnished by DMRHS)

Appendix 2.3

(Reference: Paragraph 2.2; Page 13)

Sanctioned strength and persons-in-position in the sampled Block PHCs as of March 2022

Sl. No.	Name of the sampled Block PHC	Required as per IPHS norms				Sanctioned strength (SS)				Percentage of shortage in SS as per IPHS				Persons-in-position				Vacancy percentage			
		Dr	Nr	PM	Total	Dr	Nr	PM	Total	Dr	Nr	PM	Total	Dr	Nr	PM	Total	Dr	Nr	PM	Total
1	Chennimalai	11	11	15	**37**	4	6	3	**13**	*64*	*45*	*80*	***65***	4	6	2	**12**	*0*	*0*	*33*	***8***
2	Chinnadharapuram	11	11	15	**37**	8	9	6	**23**	*27*	*18*	*60*	***38***	8	6	5	**19**	*0*	*33*	*17*	***17***
3	Karapattu	11	11	15	**37**	5	3	24	**32**	*55*	*73*	-	***14***	5	3	22	**30**	*0*	*0*	*8*	***6***
4	Modakuruchi	11	11	15	**37**	6	8	9	**23**	*45*	*27*	*40*	***38***	6	7	5	**18**	*0*	*13*	*44*	***22***
5	Naducauvery	11	11	15	**37**	8	7	3	**18**	*27*	*36*	*80*	***51***	8	7	3	**18**	*0*	*0*	*0*	***0***
6	Nammiyampattu	11	11	15	**37**	7	1	1	**9**	*36*	*91*	*93*	***76***	5	1	1	**7**	*29*	*0*	*0*	***22***
7	Sivagiri	11	11	15	**37**	10	9	13	**32**	*9*	*18*	*13*	***14***	7	8	3	**18**	*30*	*11*	*77*	***44***
8	Thingalur	11	11	15	**37**	8	6	5	**19**	*27*	*45*	*67*	***49***	8	6	4	**18**	*0*	*0*	*20*	***5***
9	Vallam	11	11	15	**37**	8	1	2	**11**	*27*	*91*	*87*	***70***	8	1	2	**11**	*0*	*0*	*0*	***0***
10	Vettavalam	11	11	15	**37**	5	2	1	**8**	*55*	*82*	*93*	***78***	2	1	1	**4**	*60*	*50*	*0*	***50***
	Total	**110**	**110**	**150**	**370**	**69**	**52**	**67**	**188**	***37***	***53***	***55***	***49***	**61**	**46**	**48**	**155**	***12***	***12***	***28***	***18***

Note: Dr: Doctors; Nr: Nurses; PM: Paramedics.

(Source: Details furnished by the respective Block PHC)

Appendix 2.4

(Reference: Paragraph 2.2; Page 13)

Sanctioned Strength and persons-in-position in all the sampled PHCs as of March 2022

Sl. No.	Name of the sampled Rural / Upgraded / Urban PHC	Required as per IPHS norms				Sanctioned strength (SS)				Percentage of shortage in SS as per IPHS				Persons-in-position				Vacancy percentage			
		Dr	Nr	PM	Total	Dr	Nr	PM	Total	Dr	Nr	PM	Total	Dr	Nr	PM	Total	Dr	Nr	PM	Total
Upgraded PHCs																					
1	Ammapalayam	11	11	15	**37**	8	9	5	**22**	*27*	*18*	*67*	***41***	7	8	5	**20**	*13*	*11*	*0*	***9***
2	Jamunamarathur	11	11	15	**37**	5	4	2	**11**	*55*	*64*	*87*	***70***	3	4	2	**9**	*40*	*0*	*0*	***18***
3	Kadamalaigundu	11	11	15	**37**	6	7	5	**18**	*45*	*36*	*67*	***51***	5	5	2	**12**	*17*	*29*	*60*	***33***
	Total (1)	**33**	**33**	**45**	**111**	**19**	**20**	**12**	**51**	*42*	*39*	*73*	*54*	**15**	**17**	**9**	**41**	*21*	*15*	*25*	*20*
Rural PHCs																					
1	Chakkarapalli	1	3	5	**9**	2	3	3	**8**	-	-	*40*	***11***	2	2	2	**6**	*0*	*33*	*33*	***25***
2	Kadavur	1	3	5	**9**	2	4	2	**8**	-	-	*60*	***11***	2	4	2	**8**	*0*	*0*	*0*	***0***
3	Kaikalathur	1	3	5	**9**	2	3	1	**6**	-	-	*80*	***33***	1	1	1	**3**	*50*	*67*	*0*	***50***
4	Kurangani	1	3	5	**9**	2	4	2	**8**	-	-	*60*	***11***	2	4	1	**7**	*0*	*0*	*50*	***13***
5	Poondi	1	3	5	**9**	2	4	0	**6**	-	-	*100*	***33***	2	4	0	**6**	*0*	*0*	*0*	***0***
6	Santhavasal	1	3	5	**9**	2	4	1	**7**	-	-	*80*	***22***	2	4	0	**6**	*0*	*0*	*100*	***14***
	Total (2)	**6**	**18**	**30**	**54**	**12**	**22**	**9**	**43**	*-*	*-*	*70*	*20*	**11**	**19**	**6**	**36**	*8*	*14*	*33*	*16*
Urban PHCs																					
1	Erode	11	11	15	**37**	1	4	9	**14**	*91*	*64*	*40*	***62***	1	4	9	**14**	*0*	*0*	*0*	***0***
2	Gobichettipalayam	1	3	5	**9**	1	4	2	**7**	-	-	*60*	***22***	1	4	2	**7**	*0*	*0*	*0*	***0***
3	Karur Town	11	11	15	**37**	1	4	10	**15**	*91*	*64*	*33*	***59***	1	3	10	**14**	*0*	*25*	*0*	*7*
4	Kumbakonam (EVRM)	1	3	5	**9**	1	4	1	**6**	-	-	*80*	***33***	1	1	1	**3**	*0*	*75*	*0*	***50***
5	Thanjavur (Kallukulam)	1	3	5	**9**	1	4	2	**7**	-	-	*60*	***22***	1	4	2	**7**	*0*	*0*	*0*	***0***
6	Theni Town	1	3	5	**9**	1	4	2	**7**	-	-	*60*	***22***	1	4	2	**7**	*0*	*0*	*0*	***0***
7	Tiruvannamalai (Central)	1	3	5	**9**	1	4	0	**5**	-	-	*100*	***44***	1	4	0	**5**	*0*	*0*	-	***0***
	Total (3)	**27**	**37**	**55**	**119**	**7**	**28**	**26**	**61**	*74*	*24*	*53*	*49*	**7**	**24**	**26**	**57**	*0*	*14*	*0*	*7*
	Grand Total	**66**	**88**	**130**	**284**	**38**	**70**	**47**	**155**	*42*	*20*	*64*	*45*	**33**	**60**	**41**	**134**	*13*	*14*	*13*	*14*

Note: Dr: Doctors; Nr: Nurses; PM: Paramedics
(Source: Details furnished by the respective PHCs)

Appendix 2.5

(Reference: Paragraph 2.3.1; Page 14)

Shortage of Manpower as compared to IPHS norms and vacancy percentage in sampled Secondary Care HCFs as of March 2022

Sl No.	Name of the sampled HCF	Bed stren-gth	Required as per IPHS norms				Sanctioned Strength (SS)				Percentage of shortage in SS as per IPHS norms				Persons-in-position				Vacancy percentage as per SS			
			Dr	Nr	PM	Total	Dr	Nr	PM	Total	Dr	Nr	PM	Total	Dr	Nr	PM	Total	Dr	Nr	PM	Total
DHQHs:																						
1.	Cheyyar	226	34	90	42	**166**	66	81	31	**178**	-	*10*	*26*	**-**	62	70	15	**147**	*6*	*14*	*52*	***17***
2.	Erode	608	68	225	100	**393**	102	175	314	**591**	-	*22*	-	**-**	78	168	111	**357**	*24*	*4*	*65*	***40***
3.	Kumbakonam	774	68	225	100	**393**	45	81	39	**165**	*34*	*64*	*61*	***58***	44	79	25	**148**	*2*	*2*	*36*	***10***
4.	Perambalur	477	68	225	100	**393**	77	98	99	**274**	-	*56*	*1*	***30***	69	92	42	**203**	*10*	*6*	*58*	***26***
5.	Periyakulam	296	50	135	66	**251**	40	60	33	**133**	*20*	*56*	*50*	***47***	36	60	27	**123**	*10*	*0*	*18*	***8***
	Total (1)		**288**	**900**	**408**	**1,596**	**330**	**495**	**516**	**1,341**	**-**	***45***	**-**	***16***	**289**	**469**	**220**	**978**	***12***	***5***	***57***	***27***
TKHs:																						
1.	Andipatti	56	23	41	43	**107**	10	5	4	**19**	*57*	*88*	*91*	***82***	9	5	3	**17**	*10*	-	*25*	***11***
2.	Bhavani	124	23	41	43	**107**	15	20	11	**46**	*35*	*51*	*74*	***57***	13	20	9	**42**	*13*	-	*18*	***9***
3.	Karai	60	23	41	43	**107**	2	4	5	**11**	*91*	*90*	*88*	***90***	2	4	4	**10**	-	-	*20*	***9***
4.	Manmangalam	60	23	41	43	**107**	9	5	19	**33**	*61*	*88*	*56*	***69***	9	5	11	**25**	-	-	*42*	***24***
5.	Orathanadu	72	23	41	43	**107**	5	10	4	**19**	*78*	*76*	*91*	***82***	5	10	3	**18**	-	-	*25*	***5***
6.	Thandarampattu	60	23	41	43	**107**	6	6	5	**17**	*74*	*85*	*88*	***84***	6	6	5	**17**	-	-	-	**-**
	Total (2)		**138**	**246**	**258**	**642**	**47**	**50**	**48**	**145**	***66***	***80***	***81***	*77*	**44**	**50**	**35**	**129**	***6***	**-**	***27***	***11***
NTKHs:																						
1.	Chinnamanur	54	23	41	43	**107**	7	12	6	**25**	*70*	*71*	*86*	*77*	7	7	6	**20**	-	*42*	-	***20***
2.	Kavandapadi	30	-	-	-	**-**	5	8	2	**15**	-	-	-	**-**	5	8	2	**15**	-	-	-	**-**
3.	Thanipadi	42	19	21	28	**68**	2	10	20	**32**	*89*	*52*	*29*	***53***	2	10	8	**20**	-	-	*60*	***38***
4.	Thirukattupalli	26	-	-	-	**-**	4	5	9	**18**	-	-	-	**-**	3	5	7	**15**	*25*	-	*22*	***17***
5.	Velayuthapalayam	62	23	41	43	**107**	9	8	12	**29**	*61*	*80*	*72*	***73***	9	8	8	**25**	-	-	*33*	***14***
	Total (3)		**65**	**103**	**114**	**282**	**27**	**43**	**49**	**119**	***58***	***58***	***57***	***58***	**26**	**38**	**31**	**95**	***4***	***12***	***37***	***20***
	Grand Total (1+2+3)		**491**	**1,249**	**780**	**2,520**	**404**	**588**	**613**	**1,605**	*18*	*53*	*21*	*36*	**359**	**557**	**286**	**1,202**	*11*	*5*	*53*	*25*

Note: The IPHS norms for TKHs / NTKHs are applicable to the HCFs having bed strength of 31-100 beds. As the bed strength of NTKH, Kavandapadi and NTKH, Thirukkattupalli is 30 and 26 respectively; the IPHS norms are not applicable to these two HCFs.

(Source: Details furnished by the respective secondary care HCFs)

Appendix 2.6

(Reference: Paragraph 2.9; Page 20)

District-wise distribution of Ambulances, EMTs and Pilots

Sl. No.	Name of District	Number of '108' Ambulances	Number of available	
			EMT	Pilot
1	Ariyalur	20	44	44
2	Chengalpattu	70	153	166
3	Chennai	71	131	143
4	Coimbatore	65	135	149
5	Cudddalore	55	116	122
6	Dharmapuri	30	50	50
7	Dindigul	37	53	54
8	Erode	46	103	105
9	Kallakurichi	31	68	69
10	Kanchipuram	35	57	59
11	Kanniyakumari	18	49	51
12	Karur	20	47	47
13	Krishnagiri	36	95	95
14	Madurai	46	100	102
15	Mayiladuthurai	15	49	49
16	Nagapattinam	19	44	45
17	Namakkal	29	44	45
18	Perambalur	19	35	35
19	Pudukkottai	38	82	90
20	Ramanathapuram	30	63	64
21	Ranipet	20	45	45
22	Salem	54	138	140
23	Sivaganga	32	71	73
24	Tenkasi	21	45	46
25	Thanjavur	36	59	59
26	The Nilgiris	42	86	89
27	Theni	27	88	90
28	Thiruvallur	73	144	162
29	Thiruvarur	55	105	108
30	Tiruchirapalli	23	44	46
31	Tirunelveli	26	56	58
32	Tirupathur	45	94	96
33	Tiruppur	22	35	38
34	Tiruvannamalai	25	38	39
35	Tuticorin	31	69	76
36	Vellore	25	74	74
37	Villupuram	40	90	93
38	Virudhunagar	26	59	59
	Total	**1,353**	**2,858**	**2,975**

(Source: Details furnished by Project Director, Tamil Nadu Health System Project)

Appendix 2.7

(Reference: Paragraph 2.10; Page 20)

District-wise details of ASHAs posted

Sl. No.	Name of District	Number of ASHAs	
		Sanctioned	In-position
1	Chengalpattu	36	36
2	Coimbatore	62	61
3	Cudddalore	20	20
4	Dharmapuri	123	119
5	Dindigul	158	158
6	Erode	89	88
7	Kallakurichi	255	253
8	Krishnagiri	179	166
9	Mayiladuthurai	2	2
10	Nagapattinam	14	14
11	Nagercoil (Kanyakumari)	36	36
12	Namakkal	47	46
13	Perambalur	42	42
14	Pudukkottai	99	99
15	Ramanathapuram	152	152
16	Ranipet	32	32
17	Salem	111	110
18	Sivaganga	17	17
19	Tenkasi	22	22
20	Thanjavur	21	21
21	The Nilgiris	413	407
22	Theni	7	7
23	Tiruchirapalli	101	100
24	Tirunelveli	134	134
25	Tirupattur	114	114
26	Tiruppur	13	13
27	Tiruvannamalai	219	219
28	Thiruvarur	6	6
29	Tuticorin	66	61
30	Vellore	60	60
Total		**2,650**	**2,615**

(Source: Details furnished by NHM-TN)

Appendix 3.1

(Reference: Paragraph 3.1.2; Page 23)

Availability of OPD services in the sampled MCHs as of January 2024

Sl No.	Availability of Specialty Services [OPD]	Govt Medical College Hospitals				
		Erode	Karur	Thanjavur	Theni	Tiruvanna-malai
1	ART / STD / ICTC	-	-	A	-	-
2	Arthroscopy	-	-	A	-	-
3	Asthma	-	-	A	-	-
4	Cancer / RT	-	-	A	-	A
5	Cardiology	-	-	A	A	-
6	Day Care OPD	-	A	-	-	-
7	De-addiction	-	-	A	-	-
8	District Early Intervention Centre	-	A	-	-	-
9	Dermatology	A	A	A	A	A
10	Diabetology	-	-	A	A	-
11	Emergency Medicine	A	A	-	-	-
12	ENT	A	A	A	A	A
13	Filarial	-	-	A	-	-
14	General Medicine	A	A	A	A	-
15	General Surgery	A	A	A	A	A
16	Geriatics	-	A	A	A	A
17	Homoeopathy	-	A	-	-	A
18	Hypertension	-	-	A	-	-
19	Leprosy	-	-	A	-	-
20	Medical Gastro-enterology	-	-	A	-	-
21	NCD	-	A	A	-	-
22	Neurology	-	-	A	A	-
23	Neuro Surgery	-	-	A	A	-
24	Nephrology	-	-	A	A	-
25	Obstetrics & Gynaecology	A	A	-	A	A
26	Occupation Therapy	-	A	-	-	-
27	Oncology Medical	-	A	A	A	-
28	Oncology Surgery	-	-	A	-	-
29	Opthalmology	A	A	-	A	A
30	Orthopaedics	A	A	A	A	A
31	Paediatric	A	A	-	A	A

Sl No.	Availability of Specialty Services [OPD]	Govt Medical College Hospitals				
		Erode	Karur	Thanjavur	Theni	Tiruvanna-malai
32	Paediatric Surgery	-	-	-	A	-
33	Physical Medicine & rehabilitation	-	-	A	-	A
34	Plastic Surgery	-	A	A	A	-
35	Psychiatry	A	A	A	A	A
36	Pulmonary / Chest Medicine	A	A	A	A	A
37	Radiology	A	-	-	-	-
38	Rheumatology	-	-	A	-	-
39	STD & Venerology	-	-	A	-	-
40	Siddha	-	A	A	-	-
41	Surgical Gastro - enterology	-	-	A	A	-
42	Urology	-	-	A	A	-
43	Vascular Surgery	-	-	A	-	-
44	Yoga & Naturopathy	-	A	A	-	-
45	Dental OPD / Surgery	A	A	-	A	A

A: Available

(Source: Details furnished by the respective MCHs)

Appendix 3.2

(Reference: Paragraph 3.1.3; Page 23)

Availability of Specialist OPD services in the sampled DHQHs as of January[2] 2024

Sl No.	Availability of Specialty Services [OPD]	DHQHs				
		Cheyyar	Erode	Kumbakonam	Perambalur	Periyakulam
1	Anti Retroviral Therapy / STD / ICTC[3]	-	-	A	-	-
2	AYUSH	-	A	-	-	A
3	Cardiology		-	-	-	-
4	Day Care Chemotherapy	-	-	A	-	-
5	Dermatology	-		A	-	A
6	ENT	A	A	A	A	A
7	General Medicine	A	A	A	A	A
8	General Surgery	A	A	A	A	A
9	Genetics	-	-	A	-	-
10	Geriatics	A	-	-	-	A
11	Medication Therapy Management Clinic	-	-	A	-	-
12	NCD[4]	A	A	-	-	A
13	Nephrology	-	A	-	-	-
14	Neurology	-	A	-	-	-
15	Obstetrics & Gynaecology	A	A	A	A	A
16	Opthalmology	A	A	A	A	A
17	Oncology	-	A	-	-	-
18	Orthopaedics	A	A	A	A	A
19	Paediatric	A	A	A	A	A
20	Pain & Palliative	-	-	A	A	-
21	Psychiatry	A	A	A	A	A
22	Pulmonary / Chest Medicine	-	A	A	-	-
23	Siddha	A	A	-	-	-
24	Dental OPD / Surgery	A	A	A	A	A

A: Available

(Source; Details furnished by the respective DHQHs)

[2] In DHQH, Erode, the specialty OPDs services in Cardiology, Nephrology, Neurology and Oncology are being provided from 13-03-2024.

[3] Integrated Counselling and Testing Centre.

[4] Non-communicable diseases.

Appendix 3.3

(Reference: Paragraph 3.1.3; Page 23)

Availability of Specialist OPD services in all non-sampled DHQHs during 2021-22

Sl. No.	Name of the DHQ hospital and its location	ENT	General Medicine	Paediatrics	General Surgery	Ophthalmology	Dental	Obstetrics & Gynaecology	Psychiatry	Orthopaedics	Dermatology & venereology	Others	Specification of others
1	Coimbatore (Pollachi)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	
2	Cuddalore	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
3	Dharmapuri (Pennagaram)	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	MHA, DMRD, DA & DMRD
4	Kancheepuram	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
5	Kanyakumari (Padhmanaba-puram)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
6	Madurai (Usilampatti)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
7	Ranipet (Walajapet)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
8	Salem (Mettur Dam)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
9	Sivaganga (Karaikudi)	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	
10	Tenkasi	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
11	Thoothukudi (Kovilpatti)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	HS-1, RMO -1, RADIOLOGY-1, ANEAS.-3, BLOOD BANK (MO) -1, CARDIOLOGIST-1, MO-1, TRAUMA MO -5, CMO TRAUMA-4,
12	Tiruchirapalli (Manapparai)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	ART-1, Hosp. Sudt.-1, MBBS (PP&C)-1, MBBS(BB)-1, Anes-5, Raio-1, Physi-1
13	Thiruvarur (Mannargudi)	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

(Source: Data furnished by the Statistical Wing of DMS)

Appendix 3.4

(Reference: Paragraph 3.1.4; Page 23)

Availability of Specialist OPD services in all sampled Taluk and Non-Taluk Hospitals as of January 2024

Sl No.	Availability of Specialty Services [OPD]	TKHs						NTKHs				
		Andi-patti	Bha-vani	Karai	Manman-galam	Oratha-nadu	Thandaram-pattu	Chinna-manur	Kavinda-padi	Thanipadi	Thirukkat-tupalli	Velayutha-palayam
1.	Anesthesiology	-	-	-	-	A	-	-	-	-	-	-
2.	Dermatology	A	A	-	A	-	-	A	-	-	-	-
3.	ENT	A	A	-	A	-	-	-	A	A	-	A
4.	General Medicine	A	A	-	-	-	A	A	A	A	A	A
5.	General Surgery	-	A	A	A	-	A	-	A	A	A	A (Weekly)
6.	Geriatics	-	A	-	-	-	A	-	-	-	-	-
7.	NCD	-	-	-	-	-	A	-	-	-	-	-
8.	Obstetrics & Gynaecology	A	A	-	A	-	A	A	A	-	-	A
9.	Opthalmology	-	A	-	-	-	A	-	-	-	-	-
10.	Orthopaedics	-	A	-	A	A	-	-	-	-	-	A (Weekly)
11.	Paediatric	-	A	-	-	A	-	A	A	-	-	A
12.	Psychiatry	-	A	-	-	-	-	A (Monthly twice)	-	A (Monthly)	A (Monthly)	A (Monthly twice)
13.	Pulmonary / Chest Medicine	-	A	-	-	-	-	-	-	-	-	-
14.	Siddha	A	-	-	-	-	A	-	-	A	-	-
15.	Dental OPD / Surgery	A	A	A	A	-	A	-	A	A	A	A

A: Available

(Source: Details furnished by the respective TKHs and NTKHs)

Appendix 3.5

(Reference: Paragraph 3.1.5; Page 24)

Availability of Specialist OPD services in all sampled Block PHCs as of January 2024

Sl No.	Speciality Services [OPD]	Chenni-malai	Chinna-dhara-puram	Moda-kurichi	Nadu-cauvery	Kara-pattu	Nammiyam-pattu	Sivagiri	Thingalur	Vallam	Vettavalam
1	OPD Specialties										
	(a) General Medicine	-	-	A	-	A	-	-	-	-	A
	(b) Opthalmology	-	-	-	-	A	-	-	-	-	A
	(c) Psychiatric	-	A (Monthly)	-	-	A (Monthly)	-	-	-	-	-
2.	Dental	-	-	A	-	-	-	-	-	-	-
3	Pharmacy	A	A	A	A	A	A	A	A	A	A
4	Emergency Room / Casualty	-	A	-	A	A	A	A	A	A	A
5	Treatment Room[5]	A	A	A	A	A	A	A	A	A	A
6.	Laboratory services	A	A	A	A	A	A	A	A	A	A
7.	AYUSH	A	A	A	A	A	A	A	A	A	A

A: Available

(Source: Details furnished by the respective Block PHCs)

[5] Minor OT; Injection & Dressing Room; Observation Room.

Appendix 3.6

(Reference: Paragraph 3.1.6; Page 24)

Availability of Specialist OPD services in all sampled PHCs

Sl No.	Specialty Services [OPD]	UPGRADED PHCs			RURAL PHCs						URBAN PHCs						
		Amma-palayam	Januna-marathur	Kada-malai-gundu	Chakka rapalli	Kaikala-thur	Kuran-gani	Poo-ndi	Santha-vasal	Kada-vur	Ero-de	Gobi-chetti-palayam	Karur Town	Kumba-konam (EVRM)	Thanja-vur (Kallu-kulam)	Theni Town	TV Malai (Central)
1	OPD Specialties	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	(a) ANC	-	-	-		-	-	-	A (Week-ly)	-	-	-	-	-	-	-	-
	(b) Gen Medicine	-	-	-		A	-	-	-	-	-	-	-	-	-	-	-
	(c) Geriatic	-	-	-		-	-	-	A (Week-ly)	-	-	-	-	-	-	-	-
2	24 hrs Emergency services	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
3	Family Welfare services	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
4	Basic Laboratory & Diagnostic Services	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
5	AYUSH	A	A	A	-	-	-	-	-	A	-	-	A	-	-	-	-
6	Minor OT / Dressing Room / Injection Room / Emergency	A	A	A	A	A [Except Minor OT]	A	A	A	A	A	A	A	A	A	A	A
7	Pharmacy	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

A: Available

(Source: Details furnished by the respective PHCs)

Appendix 3.7

(Reference: Paragraph 3.1.7; Pages 25 and 26)

Total OPD cases and average number of doctors posted in a year in sampled HCFs during 2016-22

Sl No.	Name of the sampled HCF (Except MCHs)	Total number of OPD cases	Average number of Doctors posted in a year	Average OPD cases per Doctor per day
		During 2016-22		
DHQHs				
1	Cheyyar	26,59,353	16	77
2	Erode	44,44,953	73	28
3	Kumbakonam	33,85,505	37	41
4	Perambalur	29,97,546	63	22
5	Periyakulam	24,59,064	34	34
TKHs				
6	Andipatti	13,48,502	7	90
7	Bhavani	11,70,278	13	42
8	Karai	4,91,416	2	112
9	Manmangalam	8,28,400	9	42
10	Orathanadu	10,99,849	5	100
11	Thandarampattu	7,84,689	6	65
NTKHs				
12	Chinnamanur	14,59,076	4	154
13	Kavandapadi	6,96,179	4	79
14	Thanipadi	13,20,730	2	329
15	Thirukkattupalli	13,62,656	3	207
16	Velayuthapalayam	10,18,555	9	52
Block PHCs				
17	Chennimalai	4,47,269	4	51
18	Chinnadharapuram	4,88,617	5	45
19	Karapattu	4,32,652	5	44
20	Modakurichi	5,00,389	4	62
21	Naducauvery	4,43,975	3	68
22	Nammiyampattu	4,02,113	2	79
23	Sivagiri	5,27,103	5	48
24	Thingalur	2,59,813	5	25
25	Vallam	4,02,719	5	37
26	Vettavalam	7,44,112	2	170

Sl No.	Name of the sampled HCF (Except MCHs)	Total number of OPD cases	Average number of Doctors posted in a year	Average OPD cases per Doctor per day
		During 2016-22		
Upgraded PHCs				
27	Ammapalayam	3,83,458	5	36
28	Jamunamarathur	7,86,802	12	30
29	Kadamalaigundu	2,07,395	4	22
Rural PHCs				
30	Chakkarapalli	2,35,700	2	54
31	Kadavur	3,81,084	2	87
32	Kaikalathur	1,82,116	1	100
33	Kurangani	72,259	1	33
34	Poondi	2,75,411	2	63
35	Santhavasal	79,148	2	108
Urban PHCs				
36	Erode (Gandhiji Road)	2,90,777	1	133
37	Gobichettipalayam	2,20,750	1	101
38	Karur Town	3,90,195	1	178
39	Kumbakonam (EVRM)	2,20,670	1	101
40	Thanjavur (Kallukulam)	2,63,837	1	120
41	Theni Town	2,59,885	1	119
42	Tiruvannamalai (Central)	5,11,200	1	233

(Source: Details furnished by the respective sampled HCFs)

Appendix 3.8

(Reference: Paragraph 3.1.8 (a); Page 27)

Average daily patient load per Registration Counter during 2021-22

Sl No.	Name of the sampled HCF (Except MCHs)	Number of Registration counters	Number of OPD patients during 2021-22	Avg daily patient load per Registration counter
DHQHs				
1	Cheyyar	2	5,16,262	707
2	Erode	4	5,74,045	393
3	Kumbakonam	3	5,75,534	526
4	Perambalur	3	4,19,092	383
5	Periyakulam	2	3,22,390	442
TKHs				
6	Andipatti	1	2,06,647	566
7	Bhavani	1	1,23,562	339
8	Karai	1	57,433	157
9	Manmangalam	1	1,57,600	432
10	Orathanadu	2	1,67,551	230
11	Thandarampattu	1	1,40,537	385
NTKHs				
12	Chinnamanur	1	2,02,452	555
13	Kavandapadi	2	99,768	137
14	Thanipadi	1	2,27,950	625
15	Thirukkattupalli	2	1,55,381	213
16	Velayuthapalayam	1	1,71,134	469
Block PHCs				
17	Chennimalai	2	65,157	89
18	Chinnadharapuram	2	82,605	113
19	Karapattu	1	71,364	196
20	Modakurichi	2	1,13,475	155
21	Naducauvery	1	51,016	140
22	Nammiyampattu	1	66,931	183
23	Sivagiri	1	93,532	256
24	Thingalur	1	38,030	104
25	Vallam	2	44,085	60
26	Vettavalam	1	1,22,487	336

Sl No.	Name of the sampled HCF (Except MCHs)	Number of Registration counters	Number of OPD patients during 2021-22	Avg daily patient load per Registration counter
Upgraded PHCs				
27	Ammapalayam	2	59,224	81
28	Jamunamarathur	2	1,08,113	148
29	Kadamalaigundu	1	48,469	133
Rural PHCs				
30	Chakkarapalli	1	44,567	122
31	Kadavur	2	63,422	87
32	Kaikalathur	1	43,118	118
33	Kurangani	1	12,778	35
34	Poondi	1	40,531	111
35	Santhavasal	1	79,148	217
Urban PHCs				
36	Erode (Gandhiji Road)	1	56,855	156
37	Gobichettipalayam	1	44,000	121
38	Karur Town	1	66,738	183
39	Kumbakonam (EVRM)	1	37,165	102
40	Thanjavur (Kallukulam)	1	53,587	147
41	Theni Town	1	49,675	136
42	Tiruvannamalai (Central)	2	1,04,400	143

(Source: Details furnished by the sampled HCFs)

Appendix 3.9

(Reference: Paragraph 3.2.3; Page 30)

Availability of Wards and number of Beds in sampled DHQHs

Sl No.	Name of Ward	Number of beds available				
		Cheyyar	Erode	Kumbakonam	Perambalur	Periyakulam
1.	Burn	-	8	10	-	-
2.	Dialysis	5	-	-	-	-
3.	District Mental Health Programme	10	-	-	-	-
4.	Emergency / Trauma	20	16	73	24	10
5.	Infectious Disease	-	15	12	25	-
6.	Malaria	-	17	8	-	-
7.	Maternity	44	111	202	60	46
8.	Medical - Male	32	80	54	26	15
9.	Medical - Female	32	86	48	25	20
10.	Ophthalmology	10	27	24	10	32
11.	Orthopaedic	10	42	63	16	12
12.	Paediatric	12	60	22	24	12
13.	Post-operative	6	62	84	14	42
14.	Surgical - Male	10	60	54	45	15
15.	Surgical - Female	10	65	48	25	12
16.	Private wards (if any) - CMCHIS	-	30	-	-	24

(Source: Details furnished by the respective DHQHs)

Appendix 3.10

(Reference: Paragraph 3.2.6; Page 32)

Availability of Wards and number of Beds in sampled TKHs and NTKHs

Sl No.	Type of Wards	Number of beds available										
		TKHs						NTKHs				
		Andi-patti	Bhavani	Karai[6]	Manman-galam	Oratha-nadu	Thandaram-pattu	Chinna-manur	Kavanda-padi	Thanipadi	Thirukkattu-palli	Velayutha-palayam
1.	Burn	6	-	-	-	-	2	-	-	-	-	-
2.	Emergency / Trauma	4	4	-	6	5	2	4	-	2	-	6
3.	Infectious Disease	-	4	-	6	6	-	-	-	-	-	-
4.	Maternity	8	24	5	6	22	16	8	-	5	6	6
5.	Medical - Male	12	10	15	12	10	10	24	8	12	8	16
6.	Medical - Female	12	10	15	12	20	10	12	8	9	8	16
7.	New Born	-	8	-	-	-	-	-	-	-	-	-
8.	Paediatric	6	8	6	6	12	5	6	5	2	-	12
9.	Post-operative	4	20	2	6	6	13	-	3	7	-	6
10.	Surgical - Male	2	10	-	-	-	-	-	3	-	-	-
11.	Surgical - Female	2	6	-	-	-	-	-	3	-	-	-
12.	Private wards (if any) - CMCHIS	-	-	-	6	-	-	-	-	-	-	-

(Source: Details furnished by the respective TKHs and NTKHs)

[6] In TKH, Karai, the Pediatric and Post-operative wards have no beds but has only 6 mattresses and 2 mattresses respectively.

Appendix 3.11

(Reference: Paragraph 3.2.7; Page 32)

Availability of Beds, Labour services and Operation Theatres in sampled PHCs

Sl No.	Name of sampled PHC			Number of Beds	Availability of	
	District	Type of PHC	Location		Labour Room	OT (for Vasectomy & Tubectomy)
1	**Erode**	BPHC	Chennimalai	30	A	Y
2		BPHC	Modakurichi	30	A	Y
3		BPHC	Sivagiri	30	A	Y
4		BPHC	Thingalur	30	A	Y
5		Urban PHC	Erode (Gandhiji Road)	10	A	Y
6			Gobichettipalayam	6	A	N
7	**Karur**	BPHC	Chinnadharapuram	30	A	Y
8		APHC	Kadavur	6	A	N
9		Urban PHC	Karur Town	14	A	N
10	**Perambalur**	UPHC	Ammapalayam	30	A	Y (Only Tubectomy)
11		PHC	Kaikalathur	6[7]	N	N
12	**Thanjavur**	BPHC	Naducauvery	30[8]	A	Y
13		BPHC	Vallam	30	A	Y
14		PHC	Chakkarapalli	6	A	N
15		PHC	Poondi	3	A	N
16		Urban	Kumbakonam (EVRM)	6	A	N
17		Urban	Thanjavur (Kallukulam)	6	A	N
18	**Theni**	UPHC	Kadamalaigundu	30	A	Y
19		PHC	Kurangani	6[9]	A	N
20		Urban	Bommayagoundanpatti	6	A	N
21	**Tiruvannamalai**	BPHC	Karapattu	30	A	Y
22		BPHC	Nammiyampattu	30	A	A (Not functioning)
23		BPHC	Vettavalam	30	A	Y
24		UPHC	Jamunamarathur	30	A	Y
25		PHC	Sandavasal	6	A	N
26		Urban	TV Malai (Central)	6	A	N

A: Available; Y: Yes; N: No

(Source: Details furnished by the respective PHCs)

[7] Only two beds are in use due to insufficient space.
[8] Only 23 beds are available and the remaining seven are damaged.
[9] Only four beds are available.

Appendix 3.12

(Reference: Paragraph 3.2.8; Page 32)

Availability of Isolation Wards and number of beds in sampled Secondary Care Hospitals

Sl No.	Name of the sampled Secondary care Hospital	Number of Beds available		
		Positive Isolation Ward	Negative Isolation Ward	Total
DHQHs				
1	Cheyyar	5	-	**5**
2	Erode	-	-	**46**
3	Kumbakonam	32	40	**72**
4	Perambalur	10	15	**25**
5	Periyakulam	Not available		
TKHs				
6	Andipatti	3	3	**6**
7	Bhavani	Not available		
8	Karai	-	1	**1**
9	Manmangalam	Not available		
10	Orathanadu	Not available		
11	Thandarampattu	-	2	**2**
NTKHs				
12	Chinnamanur	Not available		
13	Kavandapadi	Not available		
14	Thanipadi	-	5	**5**
15	Thirukkattupalli	Not available		
16	Velayuthapalayam	Not available		

(Source: Details furnished by the respective HCFs)

Appendix 3.13

(Reference: Paragraph 3.2.9; Page 33)

Average number of surgeries per surgeon in the sampled Secondary care Hospitals

Sl No.	Sampled HCF	ENT		General Surgery[10]		Obstetrics and Gynecology[11]		Ophthalmology		Orthopedics		Dental	
		Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon
1	**DHQH, Cheyyar**												
	2016-17	-	-	1	191	-	-	1	930	2	75	1	2,338
	2017-18	1	77	1	22	-	-	1	849	1	74	1	1,182
	2018-19	-	-	1	41	-	-	1	981	1	98	1	282
	2019-20	1	7	1	125	-	-	1	1,225	3	42	1	542
	2020-21	-	-	2	66	-	-	1	173	3	60	1	1,420
	2021-22	-	-	2	141	-	-	1	79	3	85	1	257
2	**DHQH, Erode**												
	2016-17	-	-	7	223	-	-	-	-	-	-	-	-
	2017-18	-	-	8	200	-	-	-	-	-	-	-	-
	2018-19	-	-	8	100	-	-	-	-	-	-	-	-
	2019-20	-	-	9	88	-	-	-	-	-	-	-	-
	2020-21	-	-	9	189	-	-	-	-	-	-	-	-
	2021-22	-	-	8	316	-	-	-	-	-	-	-	-
3	**DHQH, Kumbakonam**												
	2016-17	1	76	3	200	-	-	2	630	2	106	2	1,443
	2017-18	1	523	7	1,456	-	-	3	433	4	306	2	1,280
	2018-19	1	1065	6	1,423	-	-	3	370	3	677	2	1,406
	2019-20	1	1428	7	1,059	-	-	2	339	3	831	1	70
	2020-21	1	382	6	313	-	-	1	86	4	348	1	365
	2021-22	1	486	6	434	-	-	2	74	5	382	1	458

[10] Includes Minor surgeries, Elective surgeries, Emergency surgeries, Benign / Malignant diseases and burns.
[11] Both Emergency and Elective surgeries.

Sl No.	Sampled HCF	ENT		General Surgery		Obstetrics and Gynecology		Ophthalmology		Orthopedics		Dental	
		Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon
4	**DHQH, Perambalur**												
	2016-17	3	89	6	432	5	225	2	432	6	69	1	33
	2017-18	3	90	7	315	5	734	2	273	6	65	1	847
	2018-19	4	49	7	314	2	741	2	419	7	57	1	34
	2019-20	4	36	10	188	7	448	2	330	9	37	1	29
	2020-21	5	3	8	120	4	752	3	0	7	13	1	0
	2021-22	5	38	8	207	4	661	4	404	7	66	2	89
5	**DHQH, Periyakulam**												
	2016-17	-	-	1	36	-	-	1	182	2	2	1	593
	2017-18	1	144	1	258	-	-	-	-	2	16	1	358
	2018-19	0	0	1	237	-	-	1	2	2	83	1	345
	2019-20	1	23	2	118	-	-	1	115	2	63	1	463
	2020-21	-	-	5	17	-	-	2	0	4	9	1	138
	2021-22	2	4	3	51	-	-	2	12	3	27	1	242
6	**TKH, Andipatti**												
	2016-17	-	-	2	1,200	-	-	-	-	-	-	1	229
	2017-18	-	-	2	891	-	-	-	-	-	-	1	38
	2018-19	-	-	3	375	-	-	-	-	-	-	0	0
	2019-20	-	-	3	292	-	-	-	-	-	-	0	0
	2020-21	-	-	3	343	-	-	-	-	-	-	1	194
	2021-22	1	111	3	614	-	-	-	-	-	-	1	79
7	**TKH, Bhavani**												
	2016-17	1	28	4	101	5	60	-	-	1	37	2	426
	2017-18	1	8	2	246	3	98	-	-	1	49	1	3
	2018-19	-	-	2	149	4	69	-	-	2	45	1	1
	2019-20	-	-	1	178	3	94	-	-	3	103	2	4
	2020-21	-	-	3	5	4	75	-	-	1	317	2	124
	2021-22	-	-	1	24	4	38	-	-	1	65	1	111

Sl No.	Sampled HCF	ENT		General Surgery		Obstetrics and Gynecology		Ophthalmology		Orthopedics		Dental	
		Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon
8	**TKH, Manmangalam**												
	2016-17	1	0	-	-	2	69	-	-	-	-	-	-
	2017-18	1	0	-	-	2	48	-	-	-	-	-	-
	2018-19	1	0	-	-	3	73	-	-	-	-	-	-
	2019-20	1	0	-	-	3	74	-	-	-	-	-	-
	2020-21	1	0	-	-	3	111	-	-	-	-	-	-
	2021-22	1	0	-	-	3	65	-	-	-	-	1	648
9	**TKH, Orathanadu**												
	2016-17	-	-	-	-	-	-	-	-	1	321	1	402
	2017-18	-	-	-	-	-	-	-	-	1	245	1	340
	2018-19	-	-	-	-	-	-	-	-	1	218	1	240
	2019-20	-	-	-	-	-	-	-	-	1	226	1	393
	2020-21	-	-	-	-	-	-	-	-	1	233	1	619
	2021-22	-	-	-	-	-	-	-	-	1	240	1	402
10	**TKH, Thandarampattu**												
	2016-17	-	-	1	158	-	-	-	-	-	-	-	-
	2017-18	-	-	1	267	-	-	-	-	-	-	-	-
	2018-19	-	-	1	269	-	-	-	-	-	-	-	-
	2019-20	-	-	1	350	-	-	-	-	-	-	1	306
	2020-21	-	-	1	352	-	-	-	-	-	-	1	534
	2021-22	-	-	1	296	-	-	-	-	-	-	1	432
11	**NTKH, Chinnamanaur**												
	2016-17	-	-	-	-	-	-	-	-	-	-	1	3,378
	2017-18	-	-	-	-	-	-	-	-	-	-	1	2,582
	2018-19	-	-	-	-	-	-	-	-	-	-	1	5,246
	2019-20	-	-	-	-	-	-	-	-	-	-	1	4,136
	2020-21	-	-	1	3,140	-	-	-	-	-	-	1	1,731
	2021-22	-	-	1	3,825	-	-	-	-	-	-	1	1,212

Sl No.	Sampled HCF	ENT		General Surgery		Obstetrics and Gynecology		Ophthalmological		Orthopedics		Dental	
		Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon	Surgeons	Surgeries per surgeon
12	**NTKH, Kavandapadi**												
	2016-17	1	15	-	-	-	-	-	-	-	-	-	-
	2017-18	1	23	-	-	-	-	-	-	-	-	-	-
	2018-19	1	23	-	-	-	-	-	-	-	-	10	0
	2019-20	1	22	-	-	-	-	-	-	-	-	16	0
	2020-21	1	5	-	-	-	-	-	-	-	-	-	-
	2021-22	1	15	-	-	-	-	-	-	-	-	7	0
13	**NTKH, Thanipadi**												
	2016-17	-	-	-	-	-	-	-	-	-	-	1	279
	2017-18	-	-	-	-	-	-	-	-	-	-	1	360
	2018-19	-	-	-	-	-	-	-	-	-	-	1	48
	2019-20	-	-	-	-	-	-	-	-	-	-	1	150
	2020-21	-	-	-	-	-	-	-	-	-	-	1	367
	2021-22	-	-	-	-	-	-	-	-	-	-	1	626
14	**NTKH, Thirukkattupalli**												
	2016-17	1	53	-	-	-	-	-	-	-	-	-	-
	2017-18	1	6	-	-	-	-	-	-	-	-	-	-
	2018-19	1	3	-	-	-	-	1	5	-	-	-	-
	2019-20	1	79	-	-	-	-	1	0	-	-	-	-
	2020-21	1	144	-	-	-	-	1	0	-	-	-	-
	2021-22	1	102	-	-	-	-	1	50	-	-	1	11
15	**NTKH, Velayutha-palayam**												
	2016-17	2	4	-	-	-	-	-	-	1	0	1	0
	2017-18	2	3	-	-	-	-	-	-	1	14	1	340
	2018-19	1	13	-	-	-	-	-	-	2	7	1	360
	2019-20	1	19	-	-	-	-	-	-	1	22	1	418
	2020-21	1	28	1	125	-	-	-	-	1	28	1	410
	2021-22	1	36	1	51	-	-	1	0	1	31	1	446

(Source: Details furnished by the respective HCFs)

Appendix 3.14

(Reference: Paragraph 3.2.10; Page 33)

Outcome indicators of IP services in sampled Secondary and Tertiary care Hospitals

Sl No.	Name of the sampled Hospital	Average rates for the period 2016-22						
		BOR[12]	BTR[13]	DR[14]	ROR[15]	ALOS[16]	LAMA[17]	AR[18]
GMCHs								
1	Erode	72	41	99	2	5	9	1
2	Karur	82	68	98	3	5	6	1
3	Thanjavur	85	59	95	0	6	1	13
4	Theni	97	876	98	82	7	36	30
5	Tiruvannamalai	156	2	97	2	3	2	15
DHQHs								
6	Cheyyar	73	95	93	6	3	1	0
7	Erode	76	5	97	4	4	11	5
8	Kumbakonam	80	4	98	5	4	1	4
9	Perambalur	87	87	97	2	4	1	1
10	Periyakulam	61	211	98	0	5	12	0
TKHs								
11	Andipatti	85	60	55	10	6	2	1
12	Bhavani	61	72	88	10	7	1	6
13	Karai	31	4	92	0	1	0	0
14	Manmangalam	78	52	92	8	7	1	1
15	Orathanadu	88	260	90	0	5	0	0
16	Thandarampattu	50	301	70	25	5	1	4
NTKHs								
17	Chinnamanur	0	0	76	15	5	0	8
18	Kavandapadi	66	50	96	0	7	0	0
19	Thanipadi	28	82	80	16	5	2	2
20	Thirukkattupalli	81	10	66	26	5	0	0
21	Velayuthapalayam	93	2	86	13	4	0	1

(Source: Details furnished by the respective HCFs)

12 Bed Occupancy Rate: Total Patient Bed Days ÷ (Functional Beds in Hospital × Calendar Days in month) × 100 Bed Patient days- Sum of daily patient census for whole month.
13 Bed Turnover Rate: Inpatient discharge including deaths in the month ÷ Functional Bed on Ground.
14 Discharge rate.
15 Referral out rate.
16 Average Length of stay: Total Patient Bed Days in the month (excluding Newborn) ÷ Discharges in the month (including Death, LAMA, absconding).
17 Left against medical advice: Total No. of LAMA cases × 1000 ÷ Total No. of Admissions.
18 Absconding rate.

Appendix 3.15

(Reference: Paragraph 3.3.1; Page 33)

Availability of Accident and Emergency services in sampled Secondary Care Hospitals

Sl No.	Availability of Accident & Emergency Services	DHQHs					TKHs						NTKHs				
		Chey-yar	Erode	Kumba-konam	Peram-balur	Periya-kulam	Andi-patti	Bha-vani	Karai	Manman-galam	Oratha-nadu	Thanda-ram-pattu	Chinna-manur	Kavanda-padi	Thani-padi	Thiru-kkattu-palli	Velayutha-palayam
1	24 x 7 operational emergency with dedicated Emergency room with adequate man power.	A	A	A	A	A	N	A	A	N	A	N	N	N	A	N	A
2	Distinct entry independent of OPD main entry.	A	A	A	A	A	A	A	N	A	A	A	A	A	A	A	A
3	Easy ambulance approach with adequate space for free passage of vehicles and covered area for alighting patients.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
4	Signage of emergency at the entry of the hospital with directional signage at key points.	A	A	A	A	A	A	A	N	A	A	A	A	A	A	N	A
5	Emergency shall have dedicated triage, resuscitation and observation area.	A	A	A	A	A	A	A	N	A	A	A	A	N	A	A	A
6	Screens for privacy	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
7	Separate provision for examination of rape / sexual assault victim.	A	A	A	A	A	A	A	A	N	A	A	A	A	A	A	A
8	Does 'Emergency Block' have mobile X-ray / laboratory, side labs / plaster room / and minor OT facilities.	A	A	A	A	A	N	A	N	N	A	N	N	N	N	N	N

Sl No.	Availability of Accident & Emergency Services	DHQHs					TKHs						NTKHs				
		Chey-yar	Erode	Kumba-konam	Peram-balur	Periya-kulam	Andi-patti	Bha-vani	Karai	Manman-galam	Oratha-nadu	Thanda-ram-pattu	Chinna-manur	Kavanda-padi	Thani-padi	Thiru-kkattu-palli	Velayutha-palayam
9	Provision of separate emergency beds.	A	A	A	A	A	A	A	N	N	A	A	A	N	A	A	A
10	Duty rooms for Doctors / nurses / paramedical staff and medico legal cases.	A	A	A	A	A	A	A	N	A	A	A	A	N	A	A	A
11	Sufficient separate waiting areas and public amenities for patients and relatives.	A	A	A	A	A	N	A	A	A	A	A	A	A	A	A	A
12	Does Emergency block have:																
	(a) ECG	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	(b) Pulse Oxymeter	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	(c) Cardiac Monitor with Defibrillator,	A	A	A	A	A	N	A	N	N	A	N	N	N	A	N	A
	(d) Multiparameter Monitor,	A	A	A	A	A	A	A	A	A	A	A	A	N	A	N	A
	(e) Ventilator	A	A	A	A	A	N	A	N	A	A	A	N	N	N	N	A
13	Stretcher, wheelchair and trolley shall be available at the entrance of the emergency at designated area	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

A: Available; N: Not available

(Source: Details furnished by the sampled HCFs)

Appendix 3.16
(Reference: Paragraph 3.3.2; Page 34)
Care of Routine and Emergency cases in Surgery and Medicine in sampled Block PHCs

Sl No.	Care of routine & Emergency cases	Sampled Block PHC									
		Chenni -malai	Chinna -dhara-puram	Kara-pattu	Moda-kurichi	Nadu-cauvery	Nammi -yam-pattu	Siva -giri	Thinga-lur	Val-lam	Vetta-valam
Surgery											
1	Includes dressings, incision and drainage, and surgery for Hernia, Hydrocele, Appendicitis, Haemorrhoids, Fistula, and stitching of injuries.	N	A	N	A	N	N	A	N	N	N
2	Handling of emergencies like Intestinal Obstruction, Haemorrhage, etc	N	N	N	N	N	N	N	N	N	N
3	Other management including nasal packing, tracheostomy, foreign body removal etc.	N	A	N	N	N	N	A[19]	N	N	N
4	Fracture reduction and putting splints / plaster cast	A	A [FA][20]	N	N	N	N	N	N	N	N
Medical											
5	Dengue Haemorrhagic Fever	N	A [FA]	A [FA]	N	N	N	N	N	N	A
6	Cerebral Malaria	N	N	N	N	N	N	N	N	N	N
7	Dog & snake bite cases	A	A	A	A	A	A	A	A	A	A
8	Poisonings	N	A	A	A [FA]	A	A	A	A	N	A
9	Congestive Heart Failure	N	A [FA]	A [FA]	N	N	N	N	N	N	N
10	Left Ventricular Failure	N	N	N	N	N	N	N	N	N	N
11	Pneumonias	N	A [FA]	N	N	N	N	N	A	N	N

[19] Tracheostomy not done.
[20] A [FA] indicates that only First Aid is given and the patient is referred to the next higher HCF.

Sl No.	Care of routine & Emergency cases	Sampled Block PHC									
		Chenni -malai	Chinna -dhara- puram	Kara- pattu	Moda- kurichi	Nadu- cauvery	Nammi -yam- pattu	Siva -giri	Thinga- lur	Val- lam	Vetta- valam
12	Meningoencephalitis	N	N	N	N	N	N	N	N	N	N
13	Acute respiratory conditions	N	A	A	A	A	A	A	A	N	A
14	Status epilepticus	N	A [FA]	A	A	N	N	A	A	N	A
15	Burns	N	A [FA]	A	A	N	A	A	A	N	A [FA]
16	Shock	N	A [FA]	A	A	N	N	A	A	N	A
17	Acute dehydration	N	A	A	A	A	A	A	A	N	A
18	National Health Programmes	N	A	A	A	A	A	A	A	N	A

A: Available; N: Not available

(Source: Details furnished by the respective Block PHCs)

Appendix 3.17

(Reference: Paragraph 3.4.2.1; Pages 42 and 43)

Availability of Ventilators, Oxygen Concentrators and Drugs in sampled HCFs

Sl No.	Name of sampled HCF	Ventilators				O2 Concen-trators	Availability of Covid Drugs	Remarks
		PM Cares	Other sources	Total	Unservice-able			
MCHs								
1	Erode	54	67	**121**	0	333	NO	
2	Karur	20	121	**141**	7	221	YES	Repair under progress
3	Thanjavur	58	174	**232**	0	449	YES	
4	Theni	40	66	**106**	0	116	NO	
5	TV Malai	20	88	**108**	0	157	YES	
Total (1)		**192**	**516**	**708**	**7**	**1,276**		
DHQHs								
1	Cheyyar	30	10	**40**	0	42	YES	
2	Erode	25	27	**52**	0	237	NO	
3	Kumbakonam	11	27	**38**	0	42	NO	
4	Perambalur	5	45	**50**	0	90	NO	
5	Periyakulam	0	13	**13**	0	40	NO	
Total (2)		**71**	**122**	**193**	**0**	**451**		
TKHs								
1	Andipatti	0	0	**0**	0	18	NO	
2	Bhavani	3	3	**6**		104	NO	
3	Karai	0	0	**0**	0	7	NO	
4	Manmangalam	3	0	**3**		4	NO	
5	Orathanadu	0	0	**0**	0	16	YES	
6	Thandarampattu	0	4	**4**	3	24	NO	
Total (3)		**6**	**7**	**13**	**3**	**173**		
NTKHs								
1	Chinnamanur	0	0	**0**	0	24	YES	
2	Kavandapadi	0	0	**0**	0	23	YES	
3	Thanipadi	0	1	**1**		6	NO	
4	Thirukkattupalli	0	0	**0**	0	4	NO	
5	Velayuthapalayam	0	4	**4**		34	YES	Remdesivir N/A
Total (4)		**0**	**5**	**5**	**0**	**91**		
GRAND TOTAL		**269**	**650**	**919**	**10**	**1,991**		

(Source: Details furnished by the respective HCFs)

Appendix 3.18

(Reference: Paragraph 3.5.6.1; Page 48)

Still Birth Rates[21] and Conduct of Death reviews in sampled HCFs during the period 2016-22

Sl No.	Name of sampled HCF	Still Births & Still Birth Rate during 2016-22		Number of Death Reviews conducted during 2016-22	
		Total	SBR	Maternal	Neonatal
MCHs					
1	Erode	3	1.07	3	29
2	Karur	5	0.25	18	267
3	Thanjavur	1,594	18.55	72	72
4	Theni	580	13.17	68	68
5	Tiruvannamalai	70	1.20	40	72
DHQHs					
1	Cheyyar	6	0.66	1	19
2	Erode	216	11.14	16	410
3	Kumbakonam	19	0.73	16	217
4	Perambalur	28	0.99	7	228
5	Periyakulam	2	0.23	0	4
TKHs					
1	Thandarampattu	1	1.42	0	0
NTKHs					
1	Chinnamanur	5	10.10	0	0
2	Thanipadi	15	11.20	0	1
Block PHCs					
1	Chennimalai	1	4.65	0	0
2	Karapattu	21	7.77	0	27
3	Modakurichi	1	2.11	0	0
4	Nammiyampattu	16	10.45	0	0
5	Vettavalam	3	5.62	0	0
Upgraded PHCs					
1	Ammapalayam	8	8.31	0	14
2	Jamunamarathur	23	7.34	0	0
Rural PHCs					
1	Chakkarapalli	6	16.71	0	6
2	Poondi	1	3.91	0	0
Urban PHCs					
1	Gobichettipalayam	9	2.54	1	17
2	Tiruvannamalai (Central)	10	2.58	5	32

(Source: Details furnished by the respective sampled HCFs)

[21] The sampled HCFs, where no still birth occurred during 2016-22, has not been included in this Appendix.

Appendix 3.19

(Reference: Paragraph 3.6; Page 49)

Availability of mandatory pathological services in all DHQHs

Sl. No.	Name of the DHQ hospital and its location	Clinical Pathology (29)	Pathology (08)	Microbiology (07)	Serology (07)	Biochemistry (21)
1	Coimbatore (Pollachi)	1	0	1	1	1
2	Cuddalore	20	14	10	7	15
3	Dharmapuri (Pennagaram)	8	8	8	2	7
4	Erode	10	14	15	6	29
5	Kancheepuram	20	0	6	8	17
6	Kanyakumari (Padhmanabapuram)	20	0	2	9	29
7	Madurai (Usilampatti)	3	0	9	15	12
8	Perambalur	25	3	15	12	28
9	Ranipet (Walajapet)	9	15	8	6	16
10	Salem (Mettur Dam)	7	7	18	5	17
11	Sivaganga (Karaikudi)	14	14	7	9	25
12	Tenkasi	25	1	5	6	23
13	Thanjavur (Kumbakonam)	25	0	20	8	25
14	Theni (Periakulam)	20	0	6	10	30
15	Thoothukudi (Kovilpatti)	25	0	5	6	20
16	Tiruchirapalli (Manapparai)	10	1	15	6	36
17	Tiruvannamalai (Cheyyar)	17	8	16	5	9
18	Thiruvarur (Mannargudi)	15	1	1	3	12

(Source: Details furnished by DMS)

Appendix 3.20

(Reference: Paragraph 3.6; Page 50)

Shortfall in pathology services in sampled hospitals / PHC

Types of Pathology Services (Number of tests prescribed)	Hospitals without shortfall	Hospital with Shortfall (*per cent*)				
		1 to 25 *per cent*	26 to 50 *per cent*	51 to 75 *per cent*	76 to 99 *per cent*	100 *per cent*
District Headquarters Hospitals (5 hospitals)						
Clinical pathology (29)	0	0	1	1	2	1
Pathology (08)	1	0	1	1	0	2
Microbiology (07)	2	0	0	0	1	2
Serology (07)	1	1	2	0	1	0
Biochemistry (21)	1	0	1	3	0	0
Sub-District (Taluk and Non-Taluk) Hospitals (11 hospitals)						
Clinical pathology (24)	0	0	1	3	6	1
Pathology (01)	6	0	0	0	0	5
Microbiology (04)	0	1	3	5	0	2
Serology (04)	7	1	2	1	0	0
Biochemistry (06)	4	5	2	0	0	0
Primary Health Centres (16 PHC)						
Clinical pathology (18)	0	0	1	6	6	3
Pathology (01)	9	0	0	0	0	7
Microbiology (02)	5	0	6	0	0	5
Serology (03)	14	0	0	0	0	2
Biochemistry (05)	2	7	5	0	0	2
Urban Primary Health Centres (07 Urban PHC) *						
Clinical pathology (18)	0	0	0	1	6	0
Pathology (01)	1	0	0	0	0	6
Microbiology (02)	0	0	7	0	0	0
Serology (03)	1	0	6	0	0	0
Biochemistry (05)	0	1	6	0	0	0

* Table applicable for CHCs/Block PHCs is adopted.

Appendix 3.21

(Reference: Paragraph 3.7.4; Page 53)

Availability of Patient Safety amenities in sampled DHQHs, TKHs and NTKHs

Sl No.	Name of sampled HCF	Availability of Patient Safety Amenities													IC & IA	Type of FF Eqpt.
		Infection Control						Power Supply		Water Sup-ply	Drain-age & Sanita-tion	Fire-fight-ing Eqpt	A M C	Gr. / Com Red Mech		
		Hand Washing facilities	Inf. Cont Team	SOP	Safe Inj	Safe Blood Transfusion	B M W	24 h	Gen BU							
DISTRICT HQRS HOSPITALS																
1.	Cheyyar	A	A	A	A	A	A	A	A	A	A	A	A	A	A	Fire Extinguisher
2.	Erode	A	A	A	A	A	A	A	A	A	A	A	A	A	A	Fire Extinguisher
3.	Kumbakonam	A	A	A	A	A	A	A	A	A	A	A	A	A	A	ABC
4.	Perambalur	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
5.	Periyakulam	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
TALUK HOSPITALS																
6.	Andipatti	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
7.	Bhavani	A	A	A	A	A	A	A	A	A	A	A	A	A	A	ABC, CO2, K
8.	Karai	A	A	A	A	A	A	**N**	A	A	A	A	**N**	A	A	
9.	Manmagalam	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
10.	Orathanadu	A	A	A	A	**N**	A	A	A	A	A	A	A	A	A	
11.	Thandarampattu	A	A	A	A	A	A	**N**	A	A	A	A	**N**	A	A	ABC
NON-TALUK HOSPITALS																
12.	Chinnamanur	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
13.	Kavindapadi	A	A	A	A	A	A	A	A	A	A	A	**N**	A	A	ABC
14.	Thanipadi	A	A	A	A	A	A	A	A	A	A	A	A	A	A	ABC
15.	Thirukkattupalli	A	A	A	A	**N**	A	A	A	A	A	A	**N**	A	A	
16.	Velayuthapala-yam	A	A	A	A	A	A	A	A	A	A	A	A	A	A	

A: Available; N: Not available

Appendix 4.1

(Reference: Paragraph 4.1; Page 56)

Availability of Drugs, Lab reagents, Consumables and disposables in sampled DHQHs as of January 2024

Sl No.	Drugs, Lab Reagents, Consummables and Disposables						
	Category	Numbers required	Availability in sampled DHQHs				
			Chey-yar	Erode	Kumba-konam	Peram-balur	Periya-kulam
1.	Analgesics / Antipyretics / Anti Inflammatory	11	11	11	7	10	5
2.	Antibiotics & Chemotherapeutics	76	38	42	30	38	21
3.	Anti Diarrhoeal	6	4	4	2	6	5
4.	Dressing Material / Antiseptic Ointment lotion	24	19	15	13	24	10
5.	Infusion fluids	14	11	12	10	10	10
6.	Eye and ENT	25	19	4	2	16	3
7.	Antihistaminics / anti-allergic	12	12	11	9	12	8
8.	Drugs acting on Digestive system	20	15	5	10	15	5
9.	Drugs related to Hoemopoetic system	4	2	1	3	4	5
10.	Drugs acting on Cardiac vascular system	26	24	17	15	20	17
11.	Drugs acting on Central / peripheral Nervous system	40	23	1	23	36	30
12.	Drugs acting on Respiratory system	16	11	7	7	16	11
13.	Skin Ointment/Lotion etc.	23	16	10	5	23	15
14.	Drugs acting on Urogenital system	5	3	1	5	5	5
15.	Drugs used in Obstetrics and Gynecology	35	32	10	10	35	24
16.	Hormonal Preparation	14	5	3	6	9	8
17.	Vitamins	24	17	6	9	24	10
18.	Other Drugs & Material & Miscellaneous items	83	75	62	34	43	27
Essential Medicines and Supplies for Special Newborn Care Unit							
19.	Emergency Life Saving Drugs	12	12	11	9	12	12
20.	Other Essential Medicines and Supplies for SNCU	23	23	3	12	23	14
	Total	**493**	**372**	**236**	**221**	**381**	**245**
	Percentage available		***75***	***48***	***45***	***77***	***49***

(Source: Details furnished by the respective DHQHs.)

Appendix 4.2

(Reference: Paragraph 4.1; Page 56)

Availability of Drugs, other consumables and disposables in sampled TKHs / NTKHs

Sl No	Category	Num-bers requ-ired[22]	Availability of Drugs, other Consumables and Disposables in sampled TKHs / NTKHs										
			TKHs						NTKHs				
			Andi-patti	Bhavani	Karai	Manman-galam	Oratha-nadu	Thandaram-pattu	Chinna-manur	Kavanda-padi	Thani-padi	Thiru-kattu-palli	Velayutha-palayam
1.	Analgesics / Antipyretics / Anti Inflammatory	8	9	12	6	10	6	6	6	6	6	6	5
2.	Antibiotics & Chemotherapeutics	71	12	29	18	14	14	14	16	29	21	19	12
3.	Anti Diarrhoeal	5	2	3	1	2	1	2	1	1	1	1	3
4.	Dressing Material / Antiseptic Ointment / lotion	24	11	15	14	10	18	9	8	12	9	11	9
5.	Infusion fluids	14	6	11	7	7	7	10	7	9	9	8	8
6.	Eye and ENT	23	2	3	2	1	2	2	1	3	1	2	6
7.	Antihistaminics / anti-allergic	10	9	14	4	8	5	4	5	4	7	3	4
8.	Drugs acting on Digestive system	20	10	5	9	5	7	7	10	11	11	7	5
9.	Drugs related to Hoemopoetic system	4	0	0	3	8	1	1	1	2	2	2	2
10.	Drugs acting on Cardiac vascular system	26	15	16	9	4	15	11	14	14	15	13	13
11.	Drugs acting on Central / peripheral Nervous system	40	3	1	12	5	15	7	12	19	16	14	7
12.	Drugs acting on Respiratory system	15	6	6	6	6	4	5	5	7	7	3	7

[22] As per IPHS Guidelines for Sub-District / Sub-Divisional Hospitals, 2012.

Sl No	Category	Num-bners requ-ired	Availability of Drugs, other Consumables and Disposables in sampled TKHs / NTKHs										
			TKHs						NTKHs				
			Andi-patti	Bhavani	Karai	Manman-galam	Oratha-nadu	Thandaram-pattu	Chinna-manur	Kavantha-padi	Thani-padi	Thiru-kattu-palli	Velayutha-palayam
13.	Skin Ointment / Lotion etc.	18	5	12	3	4	2	2	3	6	3	3	8
14.	Drugs acting on Urogenital system	5	0	0	5	4	1	2	3	3	4	3	1
15.	Drugs acting on Uterus and Female Genital Tracts	14	0	3	2	3	4	6	1	6	2	2	9
16.	Hormonal Preparation	14	7	4	7	5	6	6	7	6	6	6	4
17.	Vitamins	21	7	12	7	8	6	8	7	5	10	7	6
18.	Other Drugs & Material & Miscellaneous items	73	42	51	22	5	22	23	35	35	65	4	38
19.	Drug Kit for Sick Newborn & Child Care – FRU / CHC	19	1	8	12	0	17	16	12	0	2	12	11
Total		**424**	**147**	**205**	**149**	**109**	**153**	**141**	**154**	**178**	**197**	**126**	**158**
Percentage available			***35***	***48***	***35***	***26***	***36***	***33***	***36***	***42***	***46***	***30***	***37***

(Source: Details furnished by the respective TKHs / NTKHs)

Appendix 4.3

(Reference: Paragraph 4.3; Page 57)

Availability of Equipment in the sampled DHQHs as of January 2024

Sl No.	Name of the Equipment	Number of Types required [IPHS 2012]		Bed strength of DHQHs & Availability of Eqpt.				
		201-300 bed-ded	301-500 bed-ded	Chey-yar	Erode	Kumba-konam	Peram-balur	Periya-kulam
				226	608	774	477	296
1	Imaging equipment	11	12	8	8	8	9	6
2	X-Ray Room Accessories	8	8	8	3	7	8	20
3	Cardiopulmonary Equipment	16	16	13	15	13	12	2
4	Labour ward, Neo Natal and Special Newborn Care Unit (SNCU) Equipment	28	28	26	150	23	25	23
	Equipment for Eclampsia Room (for 300-500 Bedded Hospital)	-	14	0	10	0	12	0
	Equipment List for Special Newborn Care Unit (SNCU)							
	A. General equipment for SNCU	12	12	11	17	10	12	12
	B. Equipment for disinfection of SNCU	13	13	10	13	4	13	13
	C. Equipment for individual patient care in the SNCU	17	17	15	133	12	17	17
5	Immunization Equipment	16	16	12	3	0	16	4
6	Ear Nose Throat Equipment	23	23	21	10	14	15	15
7	Eye Equipment	27	27	24	32	27	17	14
8	Dental Equipment	17	17	17	3	8	10	58
9	Operation Theatre Equipment	23	22	21	22	6	20	20
10	Laboratory Equipment	54	62	48	31	25	62	11
11	Surgical Equipment Sets	53	53	49	42	0	53	61
12	PMR Equipment	30	30	24	0	0	23	18
13	Endoscopy Equipment	7	8	1	2	4	7	1
14	Anaesthesia Equipment	16	15	12	25	12	12	16
15	Post Mortem Equipment	8	8	8	2	0	7	2
16	Radiotherapy	10	10	10	0	0	8	8
Total		**389**	**411**	**338**	**521**	**173**	**358**	**321**
Percentage of availability				*87*	*127*	*42*	*87*	*83*

Appendix 4.4

(Reference: Paragraph 4.3; Page 57)

Availability of Equipment in the sampled TKHs and NTKHs as of January 2024

Sl No.	Name of the Eqpt.	Numnber of Types req (IPHS 2012)		Bed strength of TKHs / NTKHs & Availability of Eqpt.								
				TKHs						NTKHs[23]		
		31-50 bed-ded	51-100 bed-ded	Andi-patti	Bha-vani	Karai	Manman-galam	Oratha-nadu	Thandaram-pattu	Chinna-manur	Thanipadi	Velayutha-palayam
				56	124	36	60	72	60	54	42	62
1	Imaging equipment	3	8	0	2	2	3	1	2	2	2	1
2	X-Ray Room Accessories	6	6	1	33	3	30	3	6	6	6	1
3	Cardiopulmonary Equipment	9	12	2	13	10	22	8	8	6	8	0
4	Labour ward & Neo Natal Equipment	19	20	3	32	8	21	13	15	12	9	2
5	Immunization Equipment	16	16	0	2	2	4	10	10	18	11	1
6	Ear Nose Throat Equipment	22	17	0	0	1	4	4	0	0	3	3
7	Eye Equipment	24	10	0	4	1	0	0	0	0	0	0
8	Dental Equipment	4	4	1	5	3	6	4	1	4	2	4
9	Operation Theatre Equipment	18	17	2	15	11	12	9	7	10	2	7

[23] The IPHS norms for Sub-District / Sub-Divisional Hospitals are for hospitals having a bed strength between 31 and 100. As the bed strength of NTKHs at Kavandapadi and Thirukkattupalli are only 30 and 26 respectively, the details of Equipment in these two NTKHs have not been included in the Appendix.

Sl No.	Name of the Eqpt	Number of Types req [IPHS 2012]		Bed strength of TKHs / NTKHs & Availability of Eqpt								
				TKHs						NTKHs		
		31-50 bed-ded	51-100 bed-ded	Andi-patti	Bha-vani	Karai	Manman-galam	Oratha-nadu	Thandaram-pattu	Chinna-manur	Thanipadi	Velayutha-palayam
				56	124	36	60	72	60	54	42	62
10	Laboratory Equipment	28	32	1	14	20	15	20	10	12	12	8
11	Surgical Equipment Sets	31	47	5	40	18	15	23	10	21	8	6
12	PMR Equipment	2	3	1	0	3	0	2	3	0	0	0
13	Endoscopy Equipment	1	3	0	0	0	0	1	0	0	0	1
14	Anaesthesia Equipment	15	15	2	2	14	12	14	6	13	6	3
15	Post Mortem Equipment	10	10	1	10	0	0	10	0	6	3	0
TOTAL		**208**	**220**	**19**	**172**	**96**	**144**	**122**	**78**	**110**	**72**	**37**
Percentage of availability				***9***	***78***	***46***	***65***	***55***	***35***	***50***	***35***	***17***

Appendix 4.5

(Reference: Paragraph 4.6.3; Page 62)

Non-blacklisting of Suppliers

Sl. No.	Tender No.	Supplier Code	Supplier Name	Drug Code	Name of the Drug	Number of times the drug failed QC
1	-	U0559	Bochem Healthcare Pvt Ltd	252	Tab Diclofenac Sodium IP 50 mg	4
2	T15007	U0213	Mediclone Biotech Pvt Ltd	208	Anti-DRH Blood Grouping Serum IP 10 ml	4
3	T15007	U0266	SM Pharmaceuticals Pvt Ltd	221	Cough Syrup	5
4	T15007	U0500	Beryl Drugs Ltd	562	Inj Sodium Chloride IP 500 ml	7
5	T15007	U0708	Nirmal Industries and Co	456	Black Disinfectant Fluid (Phenyl)	6
6	T15007	U0745	Mecca Industries	R020	IV set (Adult) with airway and needle	6
7	T17010	U0181	Haseeb Pharmaceuticals Pvt Ltd	562	Inj Sodium Chloride IP 500 ml	11
8	T17010	U0393	Himalaya Meditek Pvt Ltd	351	Inj Paracetamol 150 mg / ml	5
9	T17010	U0811	Gnosis Pharmaceuticals Pvt Ltd	182	Tab Sodium Valporate Gastro resistant IP 200 mg	6
10	T17010	U0831	Ornate Labs Pvt Ltd	479	Albendazole Suspension IP 400 mg / 10 ml	3
11	T19050	U0218	Modern Laboratories	495	Inj Diclofenac Sodium IP 25 mg / ml	3
12	T19050	U0537	Shanti Surgical (P) Ltd	R142	Absorbent Cotton Wool IP 500 gms	3
13	T19050	U0824	Healers Lab	589	Tab Glimipride 1 mg	5
14	T19050	U0830	Relief Biotech Pvt Ltd	50	Cap Amoxycillin IP 250 mg	3

(Source: Analysis of DDMS database)

Appendix 4.6

(Reference: Paragraph 4.7.1; Page 64)

Non-functioning of equipment in OT in sampled hospitals

Hospital	Name of equipment	Name of the OT	Date from which not functioning	GoTN's remarks (August 2022)
GMCH, Tiruvannamalai	Out of four, Two C-Arms were not functioning	Ortho OT	NA	One is recommended for condemnation and the other which is under AMC is being rectified.
	Two Boyle's apparatus were not in working condition	Ortho OT	NA	Recommended for condemnation (JPI - January 2024).
	Three OT Tables in damaged condition	Ortho OT	NA	Recommended for condemnation.
	Three Suction apparatus under repair	Ortho OT	NA	
DHQH, Erode	One Boyle's apparatus was under repair	OT	NA	Equipment is out of warranty. Work order is being issued for maintenance after warranty.
TKH, Bhavani	Out of two, one OT Table was not functioning	OT	NA	Recommended for condemnation.
NTKH, Chinnamanur	Autoclave	OT	NA	
BPHC, Thingalur	Out of two Auto clave machines, one was not functioning	OT	NA	Work order is being issued.
BPHC, Vettavalam	One Boyle's apparatus was not functioning	OT	NA	

Appendix 4.7

(Reference: Paragraph 4.8.3; Page 66)

Test-checked hospitals not obtained licences from AERB

District	Hospitals	PHCs
Erode	MCH, Erode (for CT scan and X-ray Machine) DHQ hospital, Erode (for CT scan) Taluk hospital, Bhavani Non-Taluk hospital, Kavandapadi	UPHC, Thingalur UPHC, Modakuruchi UPHC, Sivagiri UPHC, Chennimalai
Karur	-	UPHC, Chinnadharapuram
Theni	MCH (for Mammogram)	
	Taluk hospital, Andipatti Non-Taluk hospital, Chinnamanur	UPHC, Kadamalaigundu
Perambalur	Taluk hospital, Karai[24]	UPHC, Ammapalayam
Tiruvannamalai	MCH, Tiruvannamalai (for CT scan and X ray machine) Taluk hospital, Thandarampattu NTH, Thanipadi	UPHC, Vettavalam UPHC, Karapattu UPHC, Jamunamarathur UPHC, Nammiyampattu

[24] As of January 2024, the X-ray machine has been recommended for condemnation. A mobile X-ray machine is being used in its place.

Appendix 4.8

(Reference: Paragraph 4.8.4; Page 67)

(a) Non-functioning of ECG machines in sampled hospitals/PHCs

District	Name of the hospital/ PHC	Date of installation of ECG machine	Date from which not functioning	Number of cases referred to other hospitals
Theni	NTKH, Chinnamnur (1)	NA	NA	NA
Tiruvannamalai	MCH, Tiruvannamalai* (5)	NA	NA	NA
	DHQH, Cheyyar (1)	NA	NA	Existing ECG machines were used and no cases referred out
Thanjavur	PHC, Poondi	NA	24-04-2019	NA
Tiruvannamalai	UPHC, Vettavalam	March 2016	March 2020	158
Urban PHC				
Erode	Gobichettypalayam	2018-19	NA	237
Thanjavur	Kumbakonam[25]	NA	NA	265

* Out of eight ECG machines in TAEI Ward (Emergency Ward) with 30 beds, five were not functioning.

(b) USG machines not functioning in sampled hospitals/PHCs

District	Name of the hospital/PHC	Date of installation of USG machine	Date from which not functioning	Number of cases referred to other hospitals
Erode	GMCH, Erode TKH, Bhavani	NA	NA	NA
Theni	GMCH, Theni[26]	NA	20-09-2021	Nil
Perambalur	DHQH, Perambalur	NA	11-08-2020	As the other machine is used, no patients were referred out.
Karur	NTKH, Velayuthapalayam[27]	NA	NA	NA
	APHC, Kadavur[28]	NA	04-11-2020	1,649
Thanjavur	PHC, Poondi	NA	NA	NA
Tiruvannamalai	BPHC, Karapattu	June 2008	--	NA
Theni	Urban PHC-II, B.K. Patti	NA	NA	2,090

25 During JPI (January 2024), it was verified that the ECG machine is now available in working condition.

26 During JPI (January 2024), it was ascertained that the USG machine is under proposal for condemnation.

27 During JPI (January 2024), the Chief Medical Officer stated that the USG machine is to be condemned and there is a need for a new USG machine with colour doppler.

28 During JPI (January 2024), it was verified that unserviceable USG machine was condemned (March 2022) and a new USG machine was installed in February 2023.

Appendix 5.1

(Reference: Paragraph 5.1.1; Page 69)

District-wise requirement and availability of PHCs as per prescribed IPHS norms

Sl. No.	District	Population (As per 2011 census)			Number of PHCs								
					Req. as per IPHS Norms			Actual			Surplus / Shortfall		
		Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
1	Ariyalur	6,71,100	83,794	**7,54,894**	22	2	**24**	37	2	**39**	15	0	**15**
2	Chennai	0	46,46,732	**46,46,732**	0	93	**93**	0	140	**140**	0	47	**47**
3	Coimbatore	8,39,105	26,18,940	**34,58,045**	28	52	**80**	53	36	**89**	25	-16	**9**
4	Cuddalore	17,20,725	8,85,189	**26,05,914**	57	18	**75**	64	7	**71**	7	-11	**-4**
5	Dharmapuri	12,45,931	2,60,912	**15,06,843**	42	5	**47**	50	1	**51**	8	-4	**4**
6	Dindigul	13,51,735	8,08,040	**21,59,775**	45	16	**61**	66	7	**73**	21	-9	**12**
7	Erode	10,93,768	11,57,976	**22,51,744**	36	23	**59**	63	13	**76**	27	-10	**17**
8	Kanchee-puram	14,59,916	25,38,336	**39,98,252**	49	51	**100**	60	17	**77**	11	-34	**-23**
9	Kanniya-kumari	3,30,572	15,39,802	**18,70,374**	11	31	**42**	39	8	**47**	28	-23	**5**
10	Karur	6,29,976	4,34,517	**10,64,493**	21	9	**30**	32	5	**37**	11	-4	**7**
11	Krishnagiri	14,51,446	4,28,363	**18,79,809**	48	9	**57**	56	5	**61**	8	-4	**4**
12	Madurai	11,91,451	18,46,801	**30,38,252**	40	37	**77**	54	34	**88**	14	-3	**11**
13	Naga-pattinam	12,51,826	3,64,624	**16,16,450**	42	7	**49**	53	5	**58**	11	-2	**9**
14	Namakkal	10,30,476	6,96,125	**17,26,601**	34	14	**48**	55	8	**63**	21	-6	**15**
15	Perambalur	4,68,060	97,163	**5,65,223**	16	2	**18**	28	1	**29**	12	-1	**11**
16	Pudukottai	13,01,991	3,16,354	**16,18,345**	43	6	**49**	73	3	**76**	30	-3	**27**
17	Ramanatha-puram	9,42,746	4,10,699	**13,53,445**	31	8	**39**	54	5	**59**	23	-3	**20**
18	Salem	17,07,934	17,74,122	**34,82,056**	57	35	**92**	87	20	**107**	30	-15	**15**
19	Sivagangai	9,26,256	4,12,845	**13,39,101**	31	8	**39**	48	4	**52**	17	-4	**13**
20	Thanjavur	15,54,531	8,51,359	**24,05,890**	52	17	**69**	69	8	**77**	17	-9	**8**
21	The Nilgiris	2,99,739	4,35,655	**7,35,394**	10	9	**19**	33	4	**37**	23	-5	**18**
22	Theni	5,75,418	6,70,481	**12,45,899**	19	13	**32**	35	6	**41**	16	-7	**9**
23	Thoothukudi	8,73,374	8,76,802	**17,50,176**	29	18	**47**	50	10	**60**	21	-8	**13**
24	Tiruchirapalli	13,84,257	13,38,033	**27,22,290**	46	27	**73**	64	20	**84**	18	-7	**11**
25	Tirunelveli	15,57,004	15,20,229	**30,77,233**	52	30	**82**	88	16	**104**	36	-14	**22**
26	Tiruppur	9,57,941	15,21,111	**24,79,052**	32	30	**62**	46	21	**67**	14	-9	**5**
27	Tiruvallur	12,99,709	24,28,395	**37,28,104**	43	49	**92**	57	11	**68**	14	-38	**-24**
28	Tiruvanna-malai	19,69,930	4,94,945	**24,64,875**	66	10	**76**	93	6	**99**	27	-4	**23**
29	Thiruvarur	10,06,482	2,57,795	**12,64,277**	34	5	**39**	46	4	**50**	12	-1	**11**
30	Vellore	22,34,344	17,01,987	**39,36,331**	74	34	**108**	97	22	**119**	23	-12	**10**
31	Villupuram	29,39,785	5,19,088	**34,58,873**	98	10	**108**	106	4	**110**	8	-6	**2**
32	Virudhunagar	9,62,062	9,80,226	**19,42,288**	32	20	**52**	51	7	**58**	19	-13	**6**
	Total	**3,72,29,590**	**3,49,17,440**	**7,21,47,030**	**1,240**	**698**	**1,938**	**1,807**	**460**	**2,267**	**567**	**-238**	**328**

(Source: Details furnished by DMS)

Appendix 5.2

(Reference: Paragraphs 5.2.1 and 5.2.1.2; Pages 72 and 74)

Details of ISMH Centres run out of State Budget funds, NHM Scheme and AYUSH Scheme

	Siddha	Ayurveda	Unani	Homoeopathy	Yoga and Naturopathy	Total
ISM & Homoeopathy Centres run by State Budget						
Colleges	2	1	1	1	2	**7**
Major Hospital	2	2	1	1	2	**8**
Medical College Hospitals	15	4	2	9	24	**54**
Coimbatore Medical College and ESI Hospital	1	1	1	1	1	**5**
Multi Super Specialty Hospital (Omandurar)	0	0	0	0	1	**1**
DHQ hospitals	31	4	3	20	30	**88**
Taluk hospitals	191	2	0	9	31	**233**
Non-Taluk hospitals	58	2	4	0	0	**64**
PHCs	406	24	14	5	2	**451**
Regular Dispensary	13	6	0	5	1	**25**
Tribal Dispensary	7	0	0	0	0	**7**
Mobile Dispensary	1	0	0	0	0	**1**
Rural Dispensary	45	3	0	0	0	**48**
Total (A)	**772**	**49**	**26**	**51**	**94**	**992**
NHM Scheme						
NHM at Taluk Hospital	4	0	1	0	0	**5**
ISM Wings at PHC	271	52	39	57	20	**439**
Yoga and Naturopathy Maternity Clinic (GPHC)	0	0	0	0	29	**29**
Yoga and Naturopathy Maternity Clinic (Taluk Hospital)	0	0	0	0	2	**2**
Total (B)	**275**	**52**	**40**	**57**	**51**	**475**
AYUSH Scheme						
Hospital under DME	0	0	0	0	2	**2**
Taluk hospitals	4	0	0	1	30	**35**
Non-Taluk hospitals	2	0	1	0	0	**3**
PHCs	26	3	0	1	0	**30**
Tribal (Mobile Unit)	2	0	0	0	0	**2**
Regular Dispensary	0	0	0	0	2	**2**
Total (C)	34	3	1	2	34	**74**
Grand Total (A+B+C)	**1,081**	**104**	**67**	**110**	**179**	**1,541**

(Source: Policy Note 2023-24)

Appendix 5.3

(Reference: Paragraphs 5.2.1.1 and 5.2.1.2; Page 73)

Details of Government ISM Colleges and bed strength of its attached Hospitals as of March 2023

Sl. No.	Name of the Government ISM College	Bed strength of the attached Hospital
1.	Government Siddha Medical College and Hospital, Palayamkottai, Tirunelveli District.	350
2.	Government Siddha Medical College, Arignar Anna Government Hospital of Indian Medicine (AAGHIM) Campus, Arumbakkam, Chennai.	310
3.	Government Homoeopathy Medical College and Hospital, Tirumangalam, Madurai District.	50
4.	Government Unani Medical College, AAGHIM Campus, Arumbakkam, Chennai.	-
5.	Government Yoga and Naturopathy Medical College and Hospital, AAGHIM Campus, Arumbakkam, Chennai.	100
6.	Government Ayurveda Medical College and Hospital, Kottar, Nagercoil, Kanyakumari District.	100
7.	International Institute of Yoga and Naturopathy Medical Science, Chengalpattu.	300
	Total bed strength of attached hospitals to Government ISM Colleges	**1,210**

(Source: Policy Note 2023-24)

Appendix 5.4

(Reference: Paragraph 5.4.1; Page 78)

Authorised Bed strength and Beds available in sampled HCFs (as on January 2024)

Sl No.	Sampled HCF	Authorised Bed strength	Beds Available	Excess / Deficient
GOVERNMENT MEDICAL COLLEGE HOSPITALS				
1	Erode	510	1,080	570
2	Karur	700	1,200	500
3	Thanjavur	1,466	1,478	12
4	Theni	876	1,126	250
5	Tiruvannamalai	740	1,003	263
DISTRICT HEADQUARTERS HOSPITALS				
6	Cheyyar	226	226	0
7	Erode	608	608	0
8	Kumbakonam	774	774	0
9	Perambalur	477	650	173
10	Periyakulam	296	296	0
TALUK HOSPITALS				
11	Andipatti	56	56	0
12	Bhavani	124	124	0
13	Karai	60	36	-24
14	Manmangalam	60	60	0
15	Orathanadu	72	72	0
16	Thandarampattu	60	60	0
NON-TALUK HOSPITALS				
17	Chinnamanur	54	54	0
18	Kavandapadi	30	30	0
19	Thanipadi	42	42	0
20	Thirukkattupalli	26	26	0
21	Velayuthapalayam	62	62	0

Sl No.	Sampled HCF	Authorised Bed strength	Beds Available	Excess / Deficient
RURAL PHCs				
BLOCK PHCs				
22	Chennimalai	30	30	0
23	Chinnadharapuram	30	30	0
24	Karapattu	30	30	0
25	Modakurichi	30	30	0
26	Naducauvery	30	23	-7
27	Nammiyampattu	30	30	0
28	Sivagiri	30	30	0
29	Thingalur	30	30	0
30	Vallam	30	30	0
31	Vettavalam	30	30	0
UPGRADED PHCs				
32	Ammapalayam	30	30	0
33	Jamunamarathur	30	30	0
34	Kadamalaigundu	30	30	0
35	Chakkarapalli	6	6	0
36	Kaikalathur	6	6[29]	0
37	Kurangani	6	4	-2
38	Poondi	3	3	0
39	Sandavasal	6	6	0
ADDITIONAL PHCs				
40	Kadavur	6	6	0
URBAN PHCs				
41	Erode (Gandhiji Road)	10	10	0
42	Gobichettipalayam	6	6	0
43	Karur Town [Azad Road)	14	14	0
44	Kumbakonam (EVRM)	6	6	0
45	Thanjavur (Kallukulam)	6	6	0
46	Theni (Bommayagoundanpatti)	6	6	0
47	Tiruvannamalai (Central)	6	6	0

(Source: Details furnished by respective HCFs)

[29] Only two beds are being used due to insufficient space.

Appendix 5.5

(Reference: Paragraph 5.4.2; Page 79)

Availability of beds in all DHQHs during 2016-22

Sl. No.	Name of DHQH	Bed strength					
		2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
1	Ariyalur	132	212	212	212	432	#
2	Coimbatore	170	314	314	314	350	352
3	Cuddalore	588	588	750	750	588	750
4	Dharmapuri	116	116	152	152	116	152
5	Dindigul	377	645	645	645	645	#
6	Erode	608	608	700	700	608	725
7	Kallakurichi	@	@	@	@	304	#
8	Kancheepuram	543	543	672	672	672	672
9	Kanyakumari	108	154	154	154	174	174
10	Krishnagiri	277	277	422	422	422	#
11	Madurai	135	135	185	185	185	185
12	Nagapattinam	445	445	545	545	545	#
13	Namakkal	313	313	468	468	468	#
14	Perambalur	266	266	477	477	477	477
15	Ramanathapuram	510	684	613	613	613	#
16	Ranipet	@	@	@	@	300	330
17	Salem	264	264	300	300	300	325
18	Sivaganga	222	222	222	222	222	222
19	Tenkasi	@	@	@	@	256	557
20	Thanjavur	502	526	526	526	526	774
21	The Nilgiris	421	421	421	421	421	#
22	Theni	296	296	296	296	296	296
23	Thoothukudi	251	251	413	413	251	413
24	Tiruchirapalli	150	150	210	210	210	210
25	Tirunelveli	256	256	337	337	#	#
26	Tiruppur	516	726	726	726	877	#
27	Tiruvallur	254	129	370	370	500	#
28	Tiruvannamalai	126	126	226	226	226	226
29	Thiruvarur	198	198	354	354	354	354
30	Vellore	84	300	300	300	#	#
31	Villupuram	124	304	304	304	#	#
32	Virudhunagar	372	452	462	462	468	#
	Total	**8,624**	**9,921**	**11,776**	**11,776**	**11,806**	**7,194**

Note: # Upgraded as MCHs; @ Upgraded as DHQHs only during 2020-21.

Appendix 6.1

(Reference: Paragraph 6.2; Page 89)

Budget allocation for health and expenditure in the sampled Districts during 2016-22

(₹ in crore)

Sl No.	Sampled Districts	2016-17		2017-18		2018-19		2019-20		2020-21		2021-22	
		Budget	Expend-iture	Budget	Expend-iture	Budget	Expend-iture	Budget	Expend-iture	Budget	Expend-iture	Budget	Expend-iture
1.	Erode	99.96	95.94	107.11	109.51	119.12	120.6	138.87	137.62	191.70	205.25	167.62	162.02
2.	Karur	56.18	44.24	43.46	44.83	61.80	59.94	61.45	60.02	75.09	66.72	92.51	65.52
3.	Perambalur	41.73	41.18	47.47	40.24	44.65	47.69	50.22	46.44	58.18	68.40	55.83	43.46
4.	Thanjavur	143.98	144.73	137.98	97.11	128.35	116.39	132.65	145.19	145.89	141.54	144.41	133.53
5.	Theni	77.97	74.93	82.55	79.40	85.71	75.01	92.90	89.52	95.04	93.86	98.94	97.76
6.	Tiruvanna-malai	117.25	103.19	128.13	132.12	150.53	153.23	164.63	163.24	133.14	170.04	169.73	180.66
	Total	**537.07**	**504.21**	**546.70**	**503.21**	**590.20**	**572.86**	**640.72**	**642.03**	**699.04**	**745.81**	**729.04**	**682.95**

(Source: Compiled from details furnished by Deans of MCHs, JDMS and DDHS of sampled districts)

Appendix 7.1

(Reference: Paragraph 7.1; Page 93)

Activities carried out under National Health Mission

Sl. No.	Name of the Activity	Sl. No.	Name of the Activity
1	*Janani Suraksha Yojana*	21	Accredited Social Health Activists (ASHAs)
2	*Janani Sishu Suraksha Karyakram* (JSSK)	22	Prevention and Control of Hemoglobinopathies
3	LaQshya	23	Mobile Medical Units
4	Hiring of Specialists for MCH Care	24	Occupational Health Services for Unorganized Sector Workers
5	*Anaemia Mukt Bharat* Scheme	25	National Oral Health Programme
6	Gestational Diabetes Mellitus Control Programme	26	Pradhan Mantri National Dialysis Programme
7	Blood Bank and Blood Storage Services	27	Special Outreach Camp
8	Feeding and Dietary Charges	28	Emergency COVID 19 Response and Health System Preparedness Package (ECRP)
9	Management of Pregnant mothers during COVID 19		
10	*Surakshit Matritva Aashwasan* (SUMAN)		
11	Maternal Mortality Ratio		
12	Child Health (IMR)		
13	Sick Newborn Care Units (SNCU)		
14	Newborn Stabilization Units (NBSU)		
15	Newborn Care Corners (NBCC)		
16	*Rashtriya Bal Swasthya Karyakram*		
17	District Early Intervention Centre		
18	Weekly Iron and Folic Acid Supplementation (WIFS)		
19	*Rashtriya Kishore Swasthya Karyakram* (RKSK)		
20	BEmONC Training (Basic Emergency Management of Obstetric & Neonatal Care)		

Appendix 7.2

(Reference: Paragraph 7.7.2; Page 100)

Availability of Psychiatric specialty services and annual average patient strength in the Psychiatric OPD

Sl No.	Name of the sampled HCF	Availability of Psychiatric Specialty services	Whether Psychiatrist posted?	Availability of Psychiatric drugs	Average annual patient strength in Psychiatric OPD during 2016-22
1.	MCH, Erode	A	A	A	8,700
2.	MCH, Karur	A	A	A	16,000
3.	MCH, Thanjavur	A	A	A	48,554
4.	MCH, Theni	A	A	A	20,248
5.	MCH, Tiruvannamalai	A	A	A	13,376
6.	DHQH, Cheyyar	A	A	A	11,206
7.	DHQH, Erode	A	A	A	34,589
8.	DHQH, Kumbakonam	A	A	A	20,160
9.	DHQH, Perambalur	A	A	A	700
10.	DHQH, Periyakulam	A	A	A	26,927
11.	TKH, Andipatti	N	N	N	NIL
12.	TKH, Bhavani	A (Weekly)	N	A	2,697
13.	TKH, Karai	A	N	A	148
14.	TKH, Manmangalam	N	N	N	NIL
15.	TKH, Orathanadu	A	N (On deputation)	A	256
16.	TKH, Thandarampattu	N	N	A	NIL
17.	NTKH, Chinnamanur	A	N (Visiting from Periyakulam)	A	6,937
18.	NTKH, Kavandapadi	A (Twice a month)	N	A	960
19.	NTKH, Thanipadi	A	N	A	NIL
20.	NTKH, Thirukkattupalli	A (Monthly)	N	A	20,160
21.	NTKH, Velayuthapalayam	A	N	A	1,090

A: Available; N: Not available

(Source: Details furnished by the respective HCFs)

Appendix 7.3

(Reference: Paragraph 7.7.3; Page 100)

Availability of NMHP services in sampled Block PHCs and other PHCs

Sl No.	Name of the sampled Block PHC / PHC / Urban PHC	Availability[30] of				
		Early identification, diagnosis & treatment of Common Mental disorders	Conduct of IEC activities[31]	Follow up[32]	Trained Medical Officers[33]	Psychi -atric drugs
1.	BPHC, Chennimalai	A	A	A	A	A
2.	BPHC, Chinnadharapuram	A	A	A	A	A
3.	BPHC, Karapattu	A	NA	A	A	A
4.	BPHC, Modakurichi	A	A	A	NA	A
5.	BPHC, Naducauvery	A	A	A	A	A
6.	BPHC, Nammiyampattu	NA	NA	NA	NA	NA
7.	BPHC, Sivagiri	A	A	A	A	A
8.	BPHC, Thingalur	A	A	A	A	A
9.	BPHC, Vallam	A	A	A	A	A
10.	BPHC, Vettavalam	NA	NA	A	NA	A
11.	UPHC, Ammapalayam	A	A	A	A	A
12.	UPHC, Jamunamarathur	A	A	A	A	A
13.	UPHC, Kadamalaigundu	NA	A	A	A	A
14.	PHC, Chakkarapalli	A	NA	NA	NA	NA
15.	PHC, Kaikalathur	A	A	A	A	A
16.	PHC, Kurangani	A	NA	A	NA	NA
17.	PHC, Poondi	NA	NA	NA	NA	NA
18.	PHC, Sandavasal	A	A	A	A	A
19.	APHC, Kadavur	NA	NA	NA	NA	NA
20.	Urban PHC, Erode (Gandhiji Road)	A	NA	A	NA	A
21.	Urban PHC, Gobichettipalayam	A	A	NA	A	A
22.	Urban PHC, Karur Town (Azad Road)	A	A	A	A	A
23.	Urban PHC, Kumbakonam (EVRM)	NA	NA	NA	NA	NA
24.	Urban PHC, Thanjavur (Kallukulam)	A	A	NA	A	A
25.	Urban PHC, Theni (Bommayagoundanpatti)	NA	NA	NA	NA	NA
26.	Urban PHC, Tiruvannamalai (Central)	A	A	A	A	A

(Source: Details furnished by the respective CHCs / PHCs)

30 A – Available; NA – Not available.
31 For prevention, removal of stigma and early detection of mental disorders.
32 Care of detected cases who are on treatment.
33 To deliver basic mental health care using limited number of drugs and to provide referral service.

Appendix 7.4

(Reference: Paragraph 7.11; Page 103)

Detail of mothers paid JSY in sampled HCFs during the period 2016-22

Sl No.	Name of the sampled HCF	Total number of Institutional deliveries and number of Mothers who were paid JSY														Not paid	
		2016-17		2017-18		2018-19		2019-20		2020-21		2021-22		Total		No.	Per-centage
		ID	JSY	ID	JSY	ID	JSY	ID	JSY	ID	JSY	ID	JSY	ID	JSY		
MCHs																	
1	Erode	0	0	0	0	0	0	0	0	304	259	1,297	873	**1,601**	**1,132**	**469**	***29***
2	Karur	2,884	2,884	2,754	2,754	2,265	2,200	3,207	3,107	3,631	3,211	4,228	3,975	**18,969**	**18,131**	**838**	***4***
3	Thanjavur	14,555	11,234	14,819	12,254	14,039	11,249	13,060	11,526	13,590	11,358	13,545	9,866	**83,608**	**67,487**	**16,121**	***19***
4	Theni	6,711	6,202	7,064	6,567	7,104	6,475	7,433	5,120	7,537	5,798	7,379	5,061	**43,228**	**35,223**	**8,005**	***19***
5	Tiruvannamalai	7,905	0	8,242	0	9,065	0	9,644	0	11,723	8,180	11,692	8,503	**58,271**	**16,683**	**41,588**	***71***
	Total (1)	**32,055**	**20,320**	**32,879**	**21,575**	**32,473**	**19,924**	**33,344**	**19,753**	**36,785**	**28,806**	**38,141**	**28,278**	**2,05,677**	**1,38,656**	**67,021**	***33***
DHQHs																	
1	Cheyyar	1,170	1,170	974	974	982	982	1,222	1,222	2,355	2,355	2,421	2,421	**9,124**	**9,124**	**0**	***0***
2	Erode	2,739	2,653	3210	2,915	3,073	3,012	2,947	2,901	3,521	4,009	3,322	3,256	**18,812**	**18,746**	**66**	***0***
3	Kumbakonam	0	0	0	0	2,104	2,830	3,987	3,471	4,469	3,906	4,697	3,279	**15,257**	**13,486**	**1771**	***12***
4	Perambalur	4,113	2,473	4394	3,800	4,857	3,809	4,767	3,669	4,931	4,454	5,207	1,789	**28,269**	**19,994**	**8275**	***29***
5	Periyakulam	1,186	989	1375	1,273	1,362	1,301	1,498	1,492	1,584	1,348	1,760	1,522	**8,765**	**7,925**	**840**	***10***
	Total (2)	**9,208**	**7,285**	**9953**	**8,962**	**12,378**	**11,934**	**14,421**	**12,755**	**16,860**	**16,072**	**17,407**	**12,267**	**80,227**	**69,275**	**10952**	***14***
TKHs																	
1	Andipatti	120	120	118	118	125	125	145	145	166	166	163	163	**837**	**837**	**0**	***0***
2	Bhavani	263	257	241	220	216	206	227	208	280	260	290	260	**1,517**	**1,411**	**106**	***7***
3	Karai	0	0	19	19	11	11	8	8	1	1	4	4	**43**	**43**	**0**	***0***
4	Manmangalam	73	73	14	14	214	214	223	223	325	325	475	475	**1,324**	**1,324**	**0**	***0***
5	Orathanadu	69	69	43	43	24	24	12	12	11	11	15	15	**174**	**174**	**0**	***0***
6	Thandarampattu	10	10	166	166	146	146	127	127	76	76	180	180	**705**	**705**	**0**	***0***
	Total (3)	**535**	**529**	**601**	**580**	**736**	**726**	**742**	**723**	**859**	**839**	**1,127**	**1,097**	**4,600**	**4,494**	**106**	***2***

Sl No.	Name of the sampled HCF	Total number of Institutional deliveries and Number of Mothers who were paid JSY														Not paid	
		2016-17		2017-18		2018-19		2019-20		2020-21		2021-22		Total		No.	Per-centage
		ID	JSY	ID	JSY	ID	JSY	ID	JSY	ID	JSY	ID	JSY	ID	JSY		
NTKHs																	
1	Chinnamanur	65	60	112	93	121	107	52	51	108	88	35	30	**493**	**429**	**64**	***13***
2	Kavandapadi	37	37	50	50	8	8	13	13	7	7	19	19	**134**	**134**	**0**	***0***
3	Thanipadi	235	235	212	212	231	231	215	215	280	280	250	250	**1,423**	**1,423**	**0**	***0***
4	Thirukkattupalli	44	36	46	44	30	30	24	22	28	26	27	11	**199**	**169**	**30**	***15***
5	Velayuthapalayam	160	155	120	120	142	138	115	115	152	148	142	138	**831**	**814**	**17**	***2***
Total (4)		**541**	**523**	**540**	**519**	**532**	**514**	**419**	**416**	**575**	**549**	**473**	**448**	**3,080**	**2,969**	**111**	***4***
BLOCK PHCs																	
1	Chennimalai	57	57	44	44	42	42	26	24	25	24	20	20	**214**	**211**	**3**	***1***
2	Chinnadharapuram	31	31	27	27	29	29	42	42	31	31	22	22	**182**	**182**	**0**	***0***
3	Karapattu	195	195	122	122	96	96	75	75	80	80	58	58	**626**	**626**	**0**	***0***
4	Modakurichi	220	220	180	180	177	177	169	169	153	153	129	129	**1,028**	**1,028**	**0**	***0***
5	Naducauvery	146	146	174	174	158	158	171	171	108	108	80	80	**837**	**837**	**0**	***0***
6	Nammiyampattu	235	235	224	224	246	246	293	293	224	224	293	293	**1,515**	**1,515**	**0**	***0***
7	Sivagiri	177	177	93	93	118	118	130	130	84	81	158	156	**760**	**755**	**5**	***1***
8	Thingalur	52	52	62	62	53	53	66	66	55	55	18	18	**306**	**306**	**0**	***0***
9	Vallam	92	92	76	76	65	65	68	68	79	79	37	37	**417**	**417**	**0**	***0***
10	Vettavalam	134	93	61	50	75	66	66	56	100	67	95	73	**531**	**405**	**126**	***24***
Total (5)		**1,339**	**1,298**	**1,063**	**1,052**	**1,059**	**1,050**	**1,106**	**1,094**	**939**	**902**	**910**	**886**	**6,416**	**6,282**	**134**	***26***
UPGRADED PHCs																	
1	Ammapalayam	19	19	19	19	20	20	16	16	10	10	17	17	**101**	**101**	**0**	***0***
2	Jamunamarathur	383	383	466	466	532	532	640	640	555	555	551	551	**3,127**	**3,127**	**0**	***0***
3	Kadamalaigundu	148	148	78	78	153	153	122	122	196	196	124	124	**821**	**821**	**0**	***0***
Total (6)		**550**	**550**	**563**	**563**	**705**	**705**	**778**	**778**	**761**	**761**	**692**	**692**	**4,049**	**4,049**	**0**	***0***

Sl No.	Name of the sampled HCF	Total number of Institutional deliveries and Number of Mothers who were paid JSY														Not paid	
		2016-17		2017-18		2018-19		2019-20		2020-21		2021-22		Total		No.	Per-centage
		ID	JSY	ID	JSY	ID	JSY	ID	JSY	ID	JSY	ID	JSY	ID	JSY		
RURAL PHCs																	
1	Chakkarapalli	0	0	18	18	74	74	98	98	94	94	69	69	**353**	**353**	**0**	***0***
2	Kadavur	78	78	40	40	54	54	104	104	50	50	45	45	**371**	**371**	**0**	***0***
3	Kaikalathur	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**	**-**
4	Kurangani	0	0	0	0	1	0	0	0	0	0	0	0	**1**	**0**	**1**	***100***
5	Poondi	58	58	53	53	46	46	45	45	37	37	16	16	**255**	**255**	**0**	***0***
6	Santhavasal	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**	***0***
Total (7)		**136**	**136**	**111**	**111**	**175**	**174**	**247**	**247**	**181**	**181**	**130**	**130**	**980**	**979**	**1**	***0***
URBAN PHCs																	
1	Erode	38	38	31	31	115	115	168	168	304	304	69	69	**725**	**725**	**0**	***0***
2	Gobichettipalayam	0	0	0	0	9	9	6	6	5	5	0	0	**20**	**20**	**0**	***0***
3	Karur Town	18	18	28	28	33	33	65	65	42	42	67	67	**253**	**253**	**0**	***0***
4	Kumbakonam (EVRM)	0	0	0	0	18	18	26	26	38	38	36	36	**118**	**118**	**0**	***0***
5	Thanjavur (Kallukulam)	56	56	81	81	81	81	97	97	58	58	67	67	**440**	**440**	**0**	***0***
6	Theni Town	0	0	0	0	0	0	4	0	91	0	55	54	**150**	**54**	**96**	***64***
7	TV Malai (Central)	10	10	30	21	175	184	176	172	197	185	132	127	**720**	**699**	**21**	***3***
Total (8)		**122**	**122**	**170**	**161**	**431**	**440**	**542**	**534**	**735**	**632**	**426**	**420**	**2,426**	**2,309**	**117**	***5***
GRAND TOTAL		**44,486**	**30,763**	**45,880**	**33,523**	**48,489**	**35,467**	**51,599**	**36,300**	**57,695**	**48,742**	**59,306**	**44,218**	**3,07,455**	**2,29,013**	**78,442**	***26***

Appendix 8.1

(Reference: Paragraph 8.1.2; Page 112)

Sampled Hospitals - Pending Registration

Name of the District	Name of the Hospitals
Erode	A.K.R Hospital
	EM Hospital
	Erode Kavery Multi Specialty Hospital
	K. B. Nursing Home
	Limbus Medical Centre Private Limited
	Udhayam Medical Centre
	Nandha Ayurveda Medical College and Hospital
	Nandha Siddha Medical College and Hospital
	Kongu Naturopathy and Yoga Medical College Hospital
	Nandha Naturopathy and Yoga Medical College and Hospital
Karur	M.K. Hospital, Karur
Perambalur	Dr.G. S. Memorial Hospital, Perambalur
Theni	Saravana Hospital, Theni
	Suham Specialty Hospital, Theni
Thanjavur	Annai Naturopathy and Yoga Hospital

Appendix 8.2

(Reference: Paragraph 8.2.1; Page 113)

List of Government Blood Storage Centres functioning without valid licence

Sl. No.	Name	District	BSC No.	Dated	Valid upto
1	Corporation 24 Hrs Emergency Obstetric Care Unit, Saidapet	Chennai	65	11-11-2005	10-11-2019
2	Chennai Corporation, Perumalpet 24Hrs Emergency Obstetric Care unit, Purasawalkam, Chennai-600007	Chennai	66	22-11-2005	21-11-2019
3	GH, Sirkali	Nagapattinam	69	30-11-2005	29-11-2019
4	GPHC, Anaicut.	Vellore	96	05-02-2008	04-02-2020
5	GPHC, Kaliyarkoil	Sivaganga	106	29-05-2008	28-05-2018
6	GPHC, Peranamallur - 604503	Tiruvannamalai	112	16-09-2008	15-09-2020
7	GPHC, Kosavapatti	Dindigul	115	24-09-2008	23-09-2020
8	GPHC, Kuruvikulam - 627754	Tirunelveli	126	04-03-2009	03-03-2021
9	GPHC, Thadikarankonam - 629851	Kanyakumari	136	02-06-2010	01-06-2020
10	GPHC, Agasteeswaram	Kanyakumari	138	02-06-2010	01-06-2020
11	GUPHC, Chenbagaramanputhoor	Kanyakumari	139	02-06-2010	01-06-2020
12	GPHC, Pullambadi	Trichy	153	22-07-2010	21-07-2020
13	GPHC, Sirugambur	Trichy	154	22-07-2010	21-07-2020
14	GPHC, Thathaiyengarpet,	Trichy	155	22-07-2010	21-07-2018
15	GPHC, Uthamanur	Trichy	156	22-07-2010	21-07-2012
16	GPHC, Uppliapuram	Trichy	157	22-07-2010	21-07-2020
17	GPHC, Sivagiri - 638109*	Erode	163	05-08-2010	04-08-2020
18	GPHC, Lalapet	Vellore	171	01-10-2010	30-09-2020
19	GPHC, Kumaralingam.	Tiruppur	173	01-10-2010	30-09-2020
20	GPHC, Thimiri	Vellore	174	01-10-2010	30-09-2020
21	GPHC, Odukathur	Vellore	175	01-10-2010	30-09-2020
22	GPHC, Pallikonda	Vellore	176	01-10-2010	30-09-2020
23	GPHC, Perumanallur - 641666	Tiruppur	177	25-10-2010	24-10-2020
24	GPHC, Thalavadi	Erode	181	08-11-2010	07-11-2020
25	GUPHC, Somanur - 641668	Coimbatore	184	24-11-2010	23-11-2020
26	GUPHC, Perambakkam	Tiruvallur	185	16-12-2010	15-12-2020
27	GUPHC, Thiruchuli Taluk, Narikudi	Virudhunagar	186	16-12-2010	15-12-2018
28	GCHC, Andimadam -621801	Ariyalur	187	31-12-2010	30-12-2020
29	GPHC, Arimalam -622201	Pudukkotai	189	31-12-2010	30-12-2020
30	GCHC, T.Palur-612904	Ariyalur	190	07-01-2011	06-01-2019
31	GPHC, Karungalakudi	Madurai	196	07-02-2011	06-02-2019
32	GPHC, Thiruvegampet	Sivagangai	197	07-02-2011	06-02-2019
33	GPHC, Elumalai	Madurai	200	07-02-2011	06-02-2019
34	GPHC, Natrampalli	Vellore	202	10-02-2011	09-02-2019
35	GPHC, Muthananthal	Sivagangai	203	10-02-2011	09-02-2021
36	GCHC, Karimangalam - 635111	Dharmapuri	205	22-02-2011	21-02-2021
37	GPHC, Sendamaram -627857	Tirunelveli	206	02-03-2011	01-03-2021
38	GH, Alangulam -627851	Tirunelveli	208	05-03-2011	04-03-2021
39	GUPHC, Kilpennethur	Tiruvannamalai	211	17-03-2011	16-03-2021

Sl. No.	Name	District	BSC No.	Dated	Valid upto
40	GPHC, Devipattinam -623514	Ramanathapuram	216	30-03-2011	29-03-2019
41	GPHC, R.S. Mangalam	Ramanathapuram	217	30-03-2011	29-03-2019
42	GPHC, Kadayam	Tirunelveli	218	30-03-2011	29-03-2021
43	GPHC, Melattur-614301	Thanjavur	234	01-06-2011	31-05-2019
44	GPHC, Thiruvonam	Thanjavur	235	01-06-2011	31-05-2019
45	GPHC, Thamarankottai-614613	Thanjavur	248	20-07-2011	19-07-2019
46	GPHC, Vadamadurai	Dindigul	259	07-09-2011	06-09-2019
47	GPHC, Kallimanthayam	Dindigul	262	14-09-2011	13-09-2019
48	GCHC, Madhanur -635804	Vellore	277	29-12-2011	28-12-2019
49	GCHC, Andiyappanur- 635702	Vellore	278	29-12-2011	28-12-2019
50	GPHC, Vaduganthangal, Katpadi- 632204	Vellore	279	29-12-2011	28-12-2019
51	GCHC, Alangayam	Vellore	280	29-12-2011	28-12-2019
52	GUPHC, Srimushnam- 608708	Cuddalore	283	09-01-2012	08-01-2020
53	GCHC, Nariyambattu	Vellore	286	23-01-2012	22-01-2020
54	GUPHC, Kothanallure	Kanyakumari	295	01-03-2012	29-02-2020
55	GH, Kadayanallur	Tirunelveli	302	08-05-2012	07-05-2020
56	GPHC, Sadras-603102	Kancheepuram	307	08-06-2012	07-06-2018
57	GCHC, Chinnadharapuram*	Karur	311	21-06-2012	20-06-2018
58	GPHC, Panjapaty	Karur	314	27-06-2012	26-06-2020
59	GPHC, Thozhudur	Cuddalore	319	30-07-2012	29-07-2018
60	Arignar Anna Govt. Taluk Hospital, Sriperumbudur	Kancheepuram	322	30-07-2012	29-07-2020
61	GPHC, Thalaivasal-636112	Salem	323	21-08-2012	20-08-2020
62	GPHC, Oraiyur -607108	Cuddalore	324	21-08-2012	20-08-2020
63	GPHC, Thammampatty	Salem	325	21-08-2012	20-08-2020
64	GPHC, Kolathur-636303	Salem	326	21-08-2012	20-08-2020
65	Govt Taluk Hospital, Vikkiravandi-605652	Villupuram	327	21-08-2012	28-08-2020
66	GUPHC, Kadaladi -606908	Tiruvannamalai	328	08-11-2012	07-11-2020
67	GPHC, Vadakaraikilpidagai - 627812	Tiruvelveli	329	08-11-2012	07-11-2020
68	GCHC, Kaverpattinam-635112	Krishnagiri	333	06-12-2012	15-12-2020
69	GH, Polur – 606803	Tiruvannamalai	336	09-01-2013	08-01-2021
70	GUPHC, Sithayankottai	Dindigul	339	09-01-2013	08-01-2021
71	GCHC, Chinnalapatty-624301	Dindigul	342	01-02-2013	31-01-2021
72	GPHC, Kannankurichi-636008	Salem	343	27-02-2013	26-02-2021
73	GCHC, Kannivadi – 624705	Dindigul	345	27-02-2013	26-02-2021
74	GPHC, Sathiyamangalam	Villupuram	350	14-03-2013	13-03-2021
75	GUPHC, MekalachinnamPalli	Krishnagiri	351	14-03-2013	13-03-2021
76	GCHC, Ketti	Nilgiri	355	27-03-2013	26-03-2021
77	GPHC, Pandalgudi – 626113	Virudhunagar	370	29-05-2013	28-05-2019
78	GPHC, Kanniseripudhur	Virudhunagar	371	29-05-2013	28-05-2019
79	GH, Chengam – 606709	Tiruvannamalai	387	02-09-2013	01-09-2019
80	GHQH, Pollachi	Coimbatore	416	29-10-2013	28-10-2019
81	GH, Udumalpet	Tirupur	417	29-10-2013	28-10-2019
82	Government RSRM Hospital, Chennai-600013	Chennai	423	30-10-2013	29-10-2019
83	GH, Ulundurpet	Villupuram	434	30-10-2013	29-10-2019
84	GHQH, Cuddalore	Cuddalore	436	30-10-2013	29-10-2019

Sl. No.	Name	District	BSC No.	Dated	Valid upto
85	GPHC, Kannankudi-630318	Sivagangai	442	20-11-2013	19-11-2019
86	GPHC, Veppanampalli 635121	Krishnagiri	444	03-12-2013	02-12-2019
87	GPHC, Karungulam	Tuticorin	447	17-01-2014	16-01-2020
88	GPHC, Kalambur- 606903	Tiruvannamalai	450	17-01-2014	16-01-2020
89	GUPHC, Thoppur	Dharmapuri	452	06-02-2014	05-02-2020
90	GH, Alangudi – 622301	Pudukottai	454	14-02-2014	13-02-2020
91	GPHC, Devadanapatti	Madurai	455	14-02-2014	13-02-2020
92	TN Multi Super Specialty Hospital, Omandurar Estate, Chennai-2	Chennai	457	14-02-2014	13-02-2020
93	GPHC, Kattampoondi	Tiruvannamalai	458	18-03-2014	17-03-2020
94	GUPHC, Vettavalam*	Tiruvannamalai	469	06-06-2014	05-06-2020
95	GUPHC, Vazhur, Vandavasi	Tiruvannamalai	471	06-06-2014	05-06-2020
96	GUPHC, Patteeswaram - 612703	Thanjavur	481	21-10-2014	20-10-2020
97	GPHC, Thiruchopuram	Cuddalore	506	25-08-2015	24-08-2019
98	GPHC, Karaikadu	Cuddalore	508	18-09-2015	17-09-2019
99	GPHC, Sillathur	Thanjavur	509	22-09-2015	21-09-2019
100	GUPHC, Ervadi- 623515	Ramanathapuram	528	21-06-2016	20-06-2020
101	GPHC, Nainarkoil	Ramanathapuram	529	08-07-2016	07-07-2020
102	GPHC, Nallur, Sirkali Taluk - 609101	Nagapattinam	532	26-08-2016	25-08-2018
103	GPHC, Konerirajapuram	Nagapattinam	534	26-08-2016	25-08-2018
104	GPHC, Thirumarugal	Nagapattinam	535	26-08-2016	25-08-2018
105	GUPHC, Vadakadu	Pudukkottai	536	24-08-2016	23-08-2018
106	GUPHC, Parambur	Pudukkottai	537	05-08-2016	04-08-2020
107	GPHC, Velliyur	Thiruvallur	538	12-08-2016	11-08-2020
108	GUPHC, Thiruvengadu	Nagapattinam	539	26-08-2016	25-08-2018
109	GUPHC, Thevur	Nagapattinam	540	24-08-2016	23-08-2018
110	GPHC, Thalanayar	Nagapattinam	543	27-09-2016	26-09-2020
111	GUPHC, Pennadam - 606105	Cuddalore	546	14-10-2016	13-10-2018
112	GPHC, Perumpannaiyur-612603	Thiruvarur	552	14-11-2016	13-11-2018
113	GPHC, Periyapattinam-623523	Ramanathapuram	553	15-12-2016	14-12-2020
114	GUPHC, Alapatti - 635122	Krishnagiri	555	13-01-2017	12-01-2021
115	GUPHC, Melpallipattu - 606703	Tiruvannamalai	557	23-01-2017	22-01-2021
116	GUPHC, Thirumakkottai - 641017	Thiruvarur	560	31-01-2017	30-01-2019
117	GUPHC, Ullikottai - 614018	Thiruvarur	561	31-01-2017	30-01-2019
118	GPHC, Sanganthi-Edaiyur - 614702	Thiruvarur	562	31-01-2017	30-01-2019
119	GPHC, Vaduvur - 614019	Thiruvarur	563	31-01-2017	30-01-2019
120	GPHC, Thiruvizhimizhalai	Thiruvarur	565	28-02-2017	27-02-2019
121	GUPHC, Adiyakkamangalam	Thiruvarur	566	09-03-2017	08-03-2019
122	Govt. Medical College Hospital, Pudukkottai	Pudukkottai	580	16-10-2017	15-10-2019
123	GUPHC, Jamunamarathur – 635703*	Tiruvannamalai	581	20-10-2017	19-10-2019
124	GPHC, Melur - 606201	Villupuram	587	10-01-2018	09-01-2020
125	GPHC, Muthupettai - 614704	Thiruvarur	596	17-05-2018	16-05-2020
126	Govt Vellore MC Hospital, CEMONC Building, Vellore	Vellore	617	24-01-2019	23-01-2021
127	GH, Rameswaram - 623526	Ramanathapuram	622	21-02-2019	20-02-2021

* Sampled PHCs

Appendix 8.3

(Reference: Paragraph 8.2.2; Page 114)

Shortfalls in achievement of targets for inspection and lifting of samples

A. Details of inspections carried out by the Drug Inspectors

Year	Number of Inspections to be carried out	Number of Inspections actually carried out	Shortfall in number of inspections	*Per cent* of shortfall in inspections
2016-17	1,00,800	66,331	34,469	*34*
2017-18	1,00,800	60,495	40,305	*40*
2018-19	98,280	59,682	38,598	*39*
2019-20	1,03,500	62,275	41,225	*40*
2020-21	1,00,800	62,358	38,442	*38*

(Source: Details furnished by the DC)

B. Details of samples lifted for testing by the Drug Inspectors

Year	Number of samples to be lifted	Number of samples actually lifted	Shortfall in number of samples lifted	*Per cent* of shortfall in lifting of samples
2016-17	17,280	9,561	7,719	*45*
2017-18	17,280	8,908	8,372	*48*
2018-19	19,656	8,988	10,668	*54*
2019-20	19,320	9,011	10,309	*53*
2020-21	18,816	8,604	10,212	*54*

(Source: Details furnished by the DC)

Appendix 8.4

(Reference: Paragraph 8.3.1; Page 115)

List of sampled HCFs which did not submit the Annual Report to TNPCB during 2016-22

District	Name of Hospital	Name of PHC
Erode	NTKH, Kavandapadi	UPHC, Thingalur UPHC, Modakurichi UPHC, Sivagiri UPHC, Chennimalai
Karur	TKH, Manmangalam NTKH, Velayuthampalayam	
Perambalur		Ammapalayam Kaikalathur
Thanjavur	TKH, Orathanadu	Poondi Vallam Naducauvery Chakarapalli
Theni		UPHC, Kadamalaigundu Urban PHC-II, Bommayakoundampatti
Tiruvannamalai	TKH, Thandrampet NTKH, Thanipadi	UPHC, Vettavalam UPHC, Karapattu PHC, Santhavasal UPHC, Jamunamarathur UPHC, Nammiyampattu

Appendix 8.5

(Reference: Paragraph 8.3.3; Page 116)

Deficiencies in disposal of BMW noticed in three sampled districts

District	Deficiency Noticed
Thanjavur	➢ Bar code system is not in operation. ➢ Training to the staff/workers engaged in disposal of BMW were not given and no records were maintained for training. ➢ Huge portion/pile of BMW dumped in the site. On this being enquired for reasons, it was informed by the authorities that the plant was on shut down for maintenance of equipment for one week from 13-04-2022 to 22-04-2022. ➢ Hazardous waste and recyclable waste were dumped in the site. On being enquired, it was replied by authorities that it would be disposed off through another agency after having sufficient minimum quantity of BMW (i.e. Hazardous waste 15 tons and others 6 tons). ➢ No records were maintained at the site to monitor the quantity of BMW reached at the site which were taken from hospitals. Whatever quantity received in vehicles were disposed off without verification of quantity/details of occupier, etc. ➢ It was also stated by the authorities in site that improper segregation of BMW was received from the hospitals and stated that in more than 70% of the hospitals segregation was improper.
Tiruvannamalai	➢ It was noticed that a huge smoke at stack of the incinerator and informed the authorities and soon it was stopped. On asking the reasons for more smoke during the operation of incinerator, it was informed that the wastes loaded into the incinerator were above the limit. ➢ There were no pits for deep burial. ➢ No records to ensure the standards for dry heat sterilization for waste sharps – not less than 185 degrees Centigrade; residence period of 150 minutes and sterilization period of 90 minutes was maintained. ➢ It was informed by the authorities that biomedical wastes were not segregated as per the guidelines by the hospitals. The bags received from the hospitals included the solid wastes. ➢ No bar-coding system was followed. ➢ The needles received from the hospitals were stored in a concrete needle pit and there was no mechanism existing to dispose the needles stored in the needle pit.
Theni	➢ Bar code system for bags or containers, containing Biomedical Waste, was not followed. ➢ As per the Biomedical Waste (Management) Rules, the Incinerators (combustion chambers) shall be operated with such temperature, retention time and turbulence, as to achieve the Total Organic Carbon content within the prescribed limit. It was noticed that Programmable Logic Controller was not functioning. Due to repair of the Programmable Logic Controller (Control Panel) the required level of temperature, retention time, etc. to be maintained in the incinerator could not be monitored. ➢ It was seen that all colour bags containing biomedical waste had been received and processed by the Operator, however, only yellow and red colour bags have been shown as receipt in the Waste Collection Report Register of the Operator. White colour bags meant for waste sharps including metals and Blue colour bags meant for contaminated Glassware had not been shown as receipt in the Waste Collection Report though such waste materials were received and disposed by the unit as per the Biomedical Waste Rules. ➢ It was noticed from the pile of bags stored for incineration that White and Blue colour bags are used for packing Human Anatomical Waste and Soiled Waste along with Yellow Colour bags. Thus, colour coding of bags/containers were not properly followed as per the Rules.

Appendix 9.1

(Reference: Paragraph 9.1; Page 117)

List of 13 Targets under SDG-3

Sl. No.	Target No.	Gist of target to be achieved by 2030
1	3.1	Reduce the global maternal mortality ratio to less than 70 per 1,00,000 live births
2	3.2	Reduce neonatal mortality to 12 per 1,000 live births, and under-5 mortality to 25 per 1,000 live births
3	3.3	End the epidemics of AIDS, tuberculosis, malaria and combat hepatitis, waterborne diseases and other communicable diseases
4	3.4	Reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being
5	3.5	Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol
6	3.6	By 2020, halve the number of global deaths and injuries from road traffic accidents
7	3.7	Ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, etc.
8	3.8	Achieve universal health coverage, access to quality essential health-care services, essential medicines and vaccines for all
9	3.9	Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination
10	3.a	Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate
11	3.b	Support the research and development of vaccines and medicines for the communicable and non-communicable diseases
12	3.c	Substantially increase health financing and the recruitment, development, training and retention of the health workforce
13	3.d	Strengthen the capacity for early warning, risk reduction and management of national and global health risks

(Source: GoI's Ministry of Statistics and Programme Implementation - SDG National Indicator Framework)

Appendix 9.2

(Reference: Paragraph 9.1; Page 117)

List of 41 indicators identified at national level to measure and monitor the progress of these 13 targets under SDG-3

Sl. No.	Indicator No.	Name of Indicator
1	**3.1.1**	Maternal Mortality Ratio (per 1,00,000 live births)
2	**3.1.2**	Percentage of births attended by skilled health personnel (Period 5 years)
3	**3.1.3**	Percentage of births attended by skilled health personnel (Period 1 year)
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)
5	**3.2.1**	Under-five mortality rate (per 1,000 live births)
6	**3.2.2**	Neonatal mortality rate (per 1,000 live births)
7	**3.3.1**	Number of new HIV infections per 1,000 uninfected population
8	**3.3.2**	Tuberculosis incidence per 1,00,000 population
9	**3.3.3**	Malaria incidence per 1,000 population
10	**3.3.4**	Prevalence of Hepatitis 'B' per 1,00,000 population
11	**3.3.5**	Dengue: Case Fatality Ratio
12	**3.3.6**	Proportion of grade-2 cases amongst new cases of Leprosy (Per million population)
13	**3.3.7**	Percentage of blocks reporting < 1 Kala Azar case per 10,000 population out of the total endemic blocks
14	**3.3.8**	Percentage of districts reporting < 1% Microfilaria rate (MF) out of Targeted Endemic districts
15	**3.4.1**	Number of deaths due to cancer
16	**3.4.2**	Suicide mortality rate (per 1,00,000 population)
17	**3.5.1**	Number of persons treated in de-addiction centres
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 (men (15-49 years) & women (15 - 49 years)) who drink alcohol
19	**3.5.3**	Percentage of population (15 years and above) who consume alcohol, by sex
20	**3.6.1**	People killed/injured in road accidents (per 1,00,000 population) (similar to 11.2.2)
21	**3.7.1**	Percentage of currently married women aged 15-49 years who have their need for family planning satisfied with modern methods
22	**3.7.2**	Adolescent birth rate (aged 15–19 years) per 1,000 women in that age group
23	**3.7.3**	Percentage of Institutional Births (5 years/1 year)
24	**3.7.4**	Percentage of currently married women (15-49 years) who use any modern family planning methods (similar to Indicator 3.8.1)
25	**3.7.5**	Percentage of women aged 15-19 years who were already mothers or pregnant

Sl. No.	Indicator No.	Name of Indicator
26	**3.8.1**	Percentage of currently married women (15-49 years) who use any modern family planning methods (similar to Indicator 3.7.4)
27	**3.8.2**	Proportion of population with large household expenditures on health as a share of total household expenditure or income
28	**3.8.3**	Percentage of people living with HIV currently receiving ART among the detected number of adults and children living with HIV
29	**3.8.4**	Prevalence of hypertension among men and women age 15-49 years (in percentage)
30	**3.8.5**	Percentage of population in age group 15-49 who reportedly sought treatment out of total population in that age group having diabetes
31	**3.8.6**	Percentage of women aged 30-49 who have ever undergone a screening test for cervical cancer
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
33	**3.8.8**	Total Physicians, Nurses and Midwives per 10,000 population (similar to 3.c.1)
34	**3.9.2**	Proportion of men and women reporting Asthma in the age group 15-49 years
35	**3.9.3**	Mortality rate attributed to unintentional poisoning (per 1,00,000 population)
36	**3.a.1**	Percentage of adults 15 years and above with use of any kind of tobacco (smoking and smokeless)
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)
38	**3.b.2**	Budgetary allocation for Department of Health Research (in ₹ crore)
39	**3.c.1**	Health worker density
40	**3.c.2**	Percentage of government spending (including current and capital expenditure) in health sector to GDP
41	**3.d.1**	International Health Regulations (IHR) capacity and health emergency preparedness

(Source; MoSPI's SDG - National Indicator Framework Version 3.0 (as on 31-03-2021)

Appendix 9.3

(Reference: Paragraph 9.3; Page 118)

Status in the Key indicators of the SDG

SDG target No.	Gist	Status of achievement as on March 2021
1	Maternal mortality ratio	Achieved
2	Neonatal and under 5 mortality	Achieved
3	End epidemics	Incidences of AIDS, Chikunguniya, Dengue, Encephalitis, Malaria, etc., are coming down.
4	Premature mortality from non-communicable diseases	Mortality due to cancer continue to increase from 6,039 in 2016 to 8,489 in 2020 despite implementing GoI funded Cancer Control Programme to diagnose and treat all major forms of cancer. Suicides also continue to increase.
5	Prevention and treatment of substance abuse	Addiction to alcohol has been on the increase
6	Deaths and injuries from road traffic accidents	Deaths by road traffic accidents (RTA) decreased from 17,218 in 2016 to 8,059 in 2020. Similarly, injuries due to RTA decreased from 82,163 in 2016 to 50,551 numbers in 2020
7	Access to sexual and reproductive healthcare	Achieved
8	Universal health coverage	Partially achieved
9	Deaths and illnesses from air, water and soil pollution and contamination	Data is not monitored.
10	Tobacco Control	Data is not monitored
11	Research and development of vaccines and medicines	Data is not monitored
12	Increase health financing and the recruitment	Data is not monitored
13	Early warning, risk reduction and management	Indicator is under development

(Source: SDG Portal of Planning and Development Department)

Glossary of abbreviations

Abbreviations	Full Form
AMB	*Anaemia Mukt Bharat*
AMC	Annual Maintenance Contract
BSC	Blood Storage Centres
CBMWTF	Common Biomedical Waste Treatment Facility
CE	Clinical Establishments
DC	Drugs Controller
DDHS	Deputy Director of Health Services
DDMS	Drug Distribution Management System
DFW	Director of Family Welfare
DHQH	District Headquarters Hospital
DHS	District Health Society
DIMH	Director of Indian Medicine & Homoeopathy
DME	Director of Medical Education
DMRHS	Director of Medical & Rural Health Services
DPH	Director of Public Health & Preventive Medicine
FPIS	Family Planning Indemnity Scheme
FWP	Family Welfare Programme
GMC	Government Medical College
GMCH	Government Medical College Hospitals
GoI	Government of India
GoTN	Government of Tamil Nadu
HCF	Healthcare facilities
HFW	Health and Family Welfare
HMIS	Health Management Information System
IPHS	Indian Public Health Standard
JDHS	Joint Director of Health Services
JPV	Joint Physical Verification
JSSK	*Janani Shishu Suraksha Karyakram*
JSY	*Janani Suraksha Yojana*
LaQshya	Labour Room and Quality Improvement Initiative

Abbreviations	Full Form
LSCS	Lower Segment Caesarean Section
MCH	Medical College Hospitals
MO	Medical Officer
MoSPI	Ministry of Statistics and Programme Implementation
MRB	Medical Recruitment Board
NABH	National Accreditation Board for Hospitals and Healthcare Providers
NCA	National Centre for Ageing
NHM	National Health Mission
NHP	National Health Policy
NIF	National Indicator Framework
NQAS	National Quality Assurance Standards
NRHM	National Rural Health Mission
NTKH	Non-Taluk Hospital
NUHM	National Urban Health Mission
OT	Operation Theatre
PHC	Primary Health Centre
PIP	Persons-in-position
PS	Principal Secretary
PSA	Pressure Swing Adsorption
PWD	Public Works Department
QC	Quality Control
SAS	State Ayush Society
SDG	Sustainable Development Goals
SHS	State Health Society
SOP	Standard Operating Procedure
SS	Sanctioned Strength
TNMSC	Tamil Nadu Medical Services Corporation Limited
TNPCB	Tamil Nadu Pollution Control Board
UC	Utilisation Certificate
USG	Ultrasonogram

http://www.cag.gov.in/ag1/tamil-nadu/en