



**HEALTH AND
FAMILY WELFARE
DEPARTMENT**

Demand No.19

**POLICY NOTE
2021-22**

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Government of Tamil Nadu
2021

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Chapter – 1

INTRODUCTION

உற்றவன் தீர்ப்பான் மருந்துழைச் செல்வானென்று
அப்பால்நாற் கூற்றே மருந்து – (குறள்-950)

Medical science consists of four parts, viz. patient, physician, medicine and compounder; and each of these (again) contains four sub-divisions (Kural-950).

1.1 Health Sector in Tamil Nadu is playing a major role in addressing the public health challenges and provision of medical services to the public. In general, Health and Wellness is an important development indicator for a State. Wellness of a State is not only dependent on the medical infrastructure and human resources but also dependent on the measures taken to improve the healthy life style of the people living in the State. Through the robust infrastructure and effective public health initiatives, Tamil Nadu has aimed at providing health services which are easily accessible to general public. It has also resulted in reduction of out of pocket expenditure of the individuals, for health care reflecting the distinct nature of our health system.

1.2 The State has set its aim at attaining and excelling the Health Care indicators achieved by comparable developed countries. The increase in attendance of inpatients and outpatients to avail health services is an indicator that the people have tremendous faith in the treatment given by the Government Medical Institutions. Tamil Nadu has consistently strived for ensuring that the citizens are provided with the best possible medical care.

1.3The State has effectively responded to the challenge of COVID-19 without losing focus on maternal and child health initiatives and services and other communicable and non communicable diseases including the lifestyle diseases and Vector Borne Diseases such as Dengue, Malaria etc and diseases such as Tuberculosis, HIV-AIDS etc, among others.

CURRENT SCENARIO

1.4The details of Government medical health facilities in Tamil Nadu is given below:

Sl. No	Description	Units
1	Government Medical Colleges	25
2	Hospitals attached with the Medical Colleges	51

3	District Headquarters Hospitals handed over for Government Medical Colleges	11
4	Tamil Nadu Government Multi Super speciality Hospital	1
5	Tamil Nadu Government Dental College and Hospital	2
6	District Headquarters Hospitals	18
7	Taluk and Non-Taluk Hospitals	272
8	Primary Health Centres (PHCs)	1,807
9	Health Sub Centres (HSCs)	8,713
10	Urban Primary Health Centres (UPHCs) including Chennai Corporation	460
11	New Community Health Centres (CHCs) being established under NHM in Chennai Corporation	15
12	Employees' State Insurance (ESI) Hospitals	10
13	ESI Dispensaries	223
14	Indian System of Medicine Hospitals and Dispensaries	1,542

The Government schemes are described in detail in the rest of the Chapters of the Policy Note, few significant achievements are narrated below:

Recent initiative in the Health Sector

- **“Makkalai Thedi Maruthuvam”** (MTM) scheme is a flagship program of Government of Tamil Nadu offering holistic and comprehensive set of **“Home Based Health Care Services”** to ensure continuum of care, sustainability of the services and also meet the health needs of beneficiaries in the family as a whole. To address the challenges in Non Communicable Diseases, the **“Makkalai Thedi Maruthuvam”** scheme is conceptualised in such a way that a field level team would provide home based health care services for line-listed beneficiaries such as delivery of Hypertension / Diabetes Mellitus Drugs for patients who are 45 years and above and those with restricted mobility, home based palliative care and physiotherapy services, caring for end stage kidney failure patients, referral for essential services, identification of children with congenital problems or any other health needs in the family which needs to be informed and followed up. The MTM scheme was inaugurated by Hon’ble Chief Minister of Tamil Nadu on 05.08.2021 and being implemented across the State in a phased

manner. As on 28.08.2021, 2,42,655 patients benefitted under the scheme.

BUDGET

1.5. The Directorate wise allocation for 2021-22 under Demand No.19, Health and Family Welfare is as follows:

Sl. No.	Name of the Office	Amount (Rs. in crore)
1	Health and Family Welfare Department, Secretariat	14.07
2	Directorate of Medical and Rural Health Services	1538.10
3	Directorate of Medical Education	7734.38
4	Directorate of Public Health and Preventive Medicine	3578.54
5	Directorate of Family Welfare	204.97
6	Tamil Nadu Food Safety and Drugs Administration	112.07
7	Directorate of Indian Medicine and Homoeopathy	387.42
8	Tamil Nadu State Health Transport Department	30.38
9	Reproductive and Child Health Project	2820.77
10	Tamil Nadu Health Systems Project	2512.50
	Total	18933.20

NOTE:

- i. Apart from the above provision, Rs.207.44 crore has been allocated towards civil works being undertaken by Public Works Department under Demand No.39.
- ii. Provision towards ESI scheme hospitals for Rs.598.79 crore has been made in the Labour Welfare and Skill Development department under Demand No.32.

Chapter - 2

HEALTH ADMINISTRATION

2.1A number of Directorates, Boards and Corporations are functioning under the administrative control of the Health and Family Welfare department:

- Directorate of Medical Education - responsible for providing medical education and tertiary care.
- Directorate of Medical and Rural Health Services - responsible for providing secondary care and implementing various Regulations.
- Directorate of Public Health and Preventive Medicine - responsible for providing primary health care and public health.
- Directorate of Indian Medicine and Homoeopathy - responsible for providing AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy) services.
- Directorate of Family Welfare – takes up family planning related initiatives.
- Directorate of Food Safety and Drugs Control - focusing on food safety, determination quality and drugs control administration through two different wings respectively.

- Directorate of State Health Transport - responsible for maintenance and upkeep of the vehicles of the various Directorates under Health and Family Welfare Department.
- Medical Services Recruitment Board - focusing on the recruitment of personnel for various cadres in Health and Family Welfare department in a speedy and transparent manner.
- Tamil Nadu Medical Services Corporation - to streamline the drugs and equipment procurements and supply to all the Government Medical Institutions.
- TAMPCOL: to manufacture, medicines for use under the Indian Systems of Medicines and distribution to all the Medical Institutions.

Additionally the Directorate of Medical and Rural Health Services (ESI) under the Labour Welfare and Skill Development Department is provided staff by this department.

2.2 Other Programmes and Initiatives: Across Directorates through the following societies, missions and health specific programmes are implemented:

- i. National Health Mission - State Health Society,
- ii. Tamil Nadu State AIDS Control Society,
- iii. Tamil Nadu Blindness Control Society,
- iv. Revised National Tuberculosis Control Programme,
- v. National Mental Health Programme,
- vi. National Vector Borne Diseases Control Programme,
- vii. Universal Immunization Programme

among others are being implemented. Details are included in respective paragraphs

2.3 Councils: The following councils have been established through various Acts of Government of India and Government of Tamil Nadu to register the qualified medical, nursing and paramedical professionals to regulate their practice in Tamil Nadu:

- i. Tamil Nadu Medical Council
- ii. Tamil Nadu Dental Council
- iii. Tamil Nadu Nurses and Midwives Council
- iv. Tamil Nadu Pharmacy Council
- v. Tamil Nadu Siddha Medical Council (Siddha and Traditional Practitioners)

- vi. Board of Indian Medicine (Ayurveda, Unani and Yoga & Naturopathy)
- vii. Tamil Nadu Homoeopathy Council
- viii. Tamil Nadu State Council for Physiotherapy

2.4 Classification of Hospitals and Dispensaries:

A broad classification of hospitals and dispensaries in the State is as follows:

- i. **State–Public Medical Institutions:** All Medical institutions – Allopathy and Indian Systems of Medicine maintained through State funds are directly managed by the Government. These form the backbone of the health care. While 8,713 Health Sub Centres are catering to an average population of 5,000, 1,807 PHCs are catering to an average population of 30,000 at the next level. Above the primary health care institutions, there are secondary and tertiary care hospitals in the State. In addition, 460 Urban Primary Health Centres across the Urban areas in the State including Chennai Corporation and 15 Community Health Centres in Chennai Corporation are also functional.
- ii. **State–Special Medical Institutions:** Institutions intended to serve the public which

are including Police Department, State owned Corporations / Undertakings, Employees State Insurance Medical Institutions, etc. which include 7 ESI Hospitals and 223 ESI dispensaries.

- iii. **Medical Institutions under the Local Bodies:** Medical Institutions which are under the management of Corporations and Municipalities are covered under this classification. Urban Primary Health Centres and Urban Community Health Centres have now been established to cater to the primary health care of the urban population.
- iv. **Government Aided Private Medical Institutions:** Institutions supported / guaranteed by private contribution and receiving Government aid.
- v. **Non-Aided Private Medical Institutions:** All hospitals, dispensaries and clinics solely managed by private persons / establishments.

Chapter - 3

MEDICAL EDUCATION

3.1 The Directorate of Medical Education plays a vital role in creating qualified manpower to cater to the health needs of the State. The department has a twin role of ensuring effective, accessible tertiary care for treatment of diseases and creating qualified manpower to meet the needs of the State. The Directorate of Medical Education was formed in the year 1966 from the Directorate of Medical Services and is functioning as an independent Directorate. This Directorate is committed to deliver innovative teaching, training and research activities in the modern days of medicine field. Admission to under graduation and post graduation programs in Medicine/ Dental / Para Medical courses are done by the Selection Committee.

3.2 Administrative Structure: The Director of Medical Education is the head of the directorate and is responsible for the administration of the Government Medical Colleges, the tertiary care hospitals and Super speciality Hospitals attached to the Directorate. The Medical College and Hospitals are under the administrative control of

respective Deans. Other allied institutions are headed by Directors/Superintendants.

Government Medical Colleges	25
Government Dental College & Hospital	2
Government Pharmacy College B-Pharm	2
Government Physiotherapy College	3
Government College Of Nursing	6
Government School Of Nursing	25
Hospitals And Allied Institutions	38
Multi Super Speciality Hospital	1
Women And Children (O&G) Hospital	4
Children Hospital	1
Ophthalmic Hospital	1
TB Hospital	5
Mental Hospital	1
Rehabilitation Medicine	1
King Institute of Preventive Medicine & Research Centre	1
Dispensaries	13
TOTAL	129

3.3 The intake capacity of the Government Medical Institutions for Under Graduate and Diploma courses are furnished hereunder (as on 31.03.2021):

Sl. No	Name of the Course	Number of Seats *
1	M.B.B.S	3,550

2	B.D.S	194
3	B.Sc Nursing	250
4	Post Basic (B.Sc. Nursing)	90
5.	B.Sc Radiology and Imaging Technology	200
6	B.Sc Radio Therapy Technology	30
7	Bachelor of Physiotherapy Technology (B.P.T)	50
8	Bachelor of Cardio Pulmonary perfusion Technology	35
9	B.Pharm and B.Pharm (Lateral Entry) (120+12)	132
10	Bachelor of Audio and Speech Language Pathology	25
11	Bachelor of Optometry	85
12	Para Medical courses (25 Courses)	8,356
13	B.Sc Cardiac Technology	146
14	B.Sc Critical Care Technology	130
15	B.Sc Dialysis Technology	185
16	B.Sc Operation Theatre and Anaesthesia Technology	240
17	B.Sc Physician Assistant	220
18	B.Sc Respiratory Therapy	120
19	Diploma in Nursing	2,060
20	Diploma in Pharmacy	240
21	B.Sc Accident and Emergency Care Technology	200
22	B.Sc Medical Laboratory Technology	200

23	Bachelor of Occupational Therapy (B.O.T)	10
24	Bachelor of Optometry (B.OPTM)	85
25	B.Sc Clinical Nutrition	20
26	B.Sc Neuro Electro Physiology	10

(* These are subject to respective Commission/Council approval for annual admission and vary from year to year).

3.4 The details of Post Graduates and Speciality Courses available in the Government Medical Institutions are as follows:

Sl. No.	Courses	Number of Specialities	Total intake capacity
1	P.G. Degree (Medical Super Specialities) DM / MCH	20	369
2	P.G. Diploma (Medical)	8	21
3	M.D.S (Dental)	9	60
4	P.G. Degree (Medical Broad Specialities)MD / MS *	24	2030
5	P.G.Diplomate of National Board (DNB)	5	15
6	M. Pharmacy	4	62

7	M.Sc (Nursing)	5	65
8	M.Phil (Clinical Social Work)	1	15
9	M.Sc (Molecular Virology)	1	21
10	M. Phil (Clinical Psychology)	1	8

(* The number of seats will vary annually subject to the approval of the respective Commission/Council)

3.5 Besides the Government Institutions, the private medical / paramedical self-financing institutions affiliated to Tamil Nadu Dr.M.G.R Medical University have surrendered the following seats for allotment by the Government (as on 31.03.2021):

Sl. No	College	No. of Colleges	Number of Seats *
1	Medical College	16	1,288
2	Dental College	18	1,125
3.	B.Sc Nursing	192	7,850
4	B-Pharm	80	4,248
5	B-Pharm (Lateral Entry)	70	661
6	B.P.T	38	1,528
7.	B.O.T	5	206
8.	Post Basic B.Sc Nursing	52	1,067

(* The number of seats will vary annually subject to the approval of the respective Council)

3.6 Admission policy in Medicine and opposition to National Eligibility cum Entrance Test (NEET):

The Government of Tamil Nadu has been consistently opposing NEET for admission to Medical Courses. Considering the plight of the poor students in getting admission to medical seats, the Honourable Chief Minister made an announcement on 05.06.2021 to constitute a High Level Committee under the Chairmanship of Retired High Court Judge, Justice Thiru.A.K.Rajan. The above Committee undertook a detailed study on whether the NEET based admission process has adversely affected the social, economic and federal polity and the students of rural and urban poor, those who studied in Government Schools, those who studied in Tamil Medium or any other section of students in Tamil Nadu and submitted its recommendations on 14.07.2021. An Official Committee of Secretaries under the Chairmanship of Chief Secretary was constituted to suggest appropriate measures to implement the recommendation of the High Level Committee. The Committee of Secretaries has suggested to promulgate an Act, similar to Tamil Nadu Act No.3/2007, indicating the need for elimination of NEET in Medical Education and get

the President's assent for the same. This will ensure social justice and protect all vulnerable student communities from being discriminated in admission to medical education programmes.

3.7 Regarding 50% Reservation of seats for service candidates in the State Government quota for Post Graduate courses such as MD/MS/MDS and DM/MCh, the Government have issued orders for the reservation of 50% of total available seats in respect of MD/MS courses. In respect of super speciality courses DM/MCh, the said Government Order was upheld by the High Court of Madras, but the same was challenged before the Supreme Court of India.

3.8 OBC Reservation for Government of India Seats: Government of Tamil Nadu is surrendering 15% of the seats in the Under Graduate Medical Course and 50% of the seats in the Post Graduate Degree / Diploma courses from out of the available 3,675 (3,550 seats in 25 Government Medical College + 125 in ESI Hospital, K.K.Nagar) Under Graduate and 2,030 Post Graduates seats in 25 Government Medical Colleges to the Director General of Health Services, Government of India for allocation under All India Quota. The Government of India was requested to implement

the rule of reservation being followed by the State of Tamil Nadu in the seats surrendered to All India Quota. Now, the Government of India for the first time has come forward to provide 27% reservation in respect of OBCs in the All India Quota seats from the academic year 2021-2022 for Under Graduate / Post Graduate medical / Dental courses. The State continues to press for implementation of the reservation followed by the State in the seats surrendered by the State to the All India quota.

3.9 Preferential reservation of 7.5% of Government Medical Seats for Students Studied in Government Schools: As per the recommendations of the Commission, constituted by the State Government under the Chairmanship of Hon'ble Justice P. Kalaiyaran (Retired), "Tamil Nadu Admission to Undergraduate Courses in Medicine, Dentistry, Indian Medicine and Homeopathy on preferential basis to students of Government schools Act, 2020, (Tamil Nadu Act No.34 of 2020)" making reservation of 7.5% Government seats to enable the students studied in Government Schools who are qualified in NEET to get admission in Medical Courses was notified in Government Gazette on 30.10.2020 and brought into effect on 31.10.2020. Based on the above Act, during the year 2020-2021, 336 MBBS and 99 BDS

seats were allotted to the Government School Students. Considering the poor economic status of the said students, Revolving Fund has been created with Rs.16 crore to enable payment of all types of essential fees and hostel fees for the students who have got admission under the 7.5% preferential allotment of seats in MBBS / BDS Course.

3.10 Establishment of 11 New Government Medical Colleges: 11 new Government Medical Colleges are being established in the Districts of Ramanathapuram, Virudhunagar, The Nilgiris, Dindigul, Tiruppur, Namakkal, Nagapattinam, Krishnagiri, Thiruvallur, Kallakurichi and Ariyalur with an intake of 150 MBBS seats each. Administrative and Financial sanction have been accorded for construction of buildings and creation of new posts as per the National Medical Commission norms. Now the construction of buildings are in progress. The permission of the National Medical Commission for admitting the students from the current academic year 2021-2022 has been sought for on 27.11.2020. 150 MBBS seats in each new Government Medical college and thus 1,650 MBBS seats will be added from this year 2021-2022, if National Medical Commission accords permission.

3.11 Centre of Excellence for Cancer in the Government Arignar Anna Memorial Cancer Hospital, Karapettai, Kancheepuram: Centre of Excellence exclusively for cancer diseases are being established in the Government Arignar Anna Memorial Cancer Hospital, Karapettai, Kancheepuram at a total cost of Rs.120 crore. Construction of buildings are under progress.

3.12 Centre of Excellence at the Institute of Rehabilitation Medicine, Kalaignar Karunanithi Nagar, Chennai: Institute of Rehabilitation Medicine is being upgraded as centre of excellence at a cost of Rs.40 crore under World Bank funded Tamil Nadu Health System Reform Program. Building works are under progress.

3.13 New Multi Super Speciality Hospital in South Chennai: Establishment of a new 500 bedded Multi Super Speciality Hospital in the premises of King Institute of Preventive Medicine and Research Centre, Guindy at a cost of Rs.250 crore has been announced by Hon'ble Chief Minister. In this New Hospital, 7 Medical Super speciality departments and 12 Surgical Super speciality departments are proposed. Public Works Department has prepared detailed plans and estimates. Construction of building work will commence soon.

Chapter - 4

MEDICAL AND RURAL HEALTH SERVICES

4.1 The Directorate of Medical and Rural Health Services has been entrusted with the responsibility of providing secondary level medical care to the public. The Director serves as the Appropriate Authority at the State level, under many of the Health Acts.

The secondary care services are provided through the network of following Hospitals:

District Headquarters Hospitals	18
Taluk Hospitals	205
Non-Taluk Hospitals	67
Women and Children Hospitals	7
Dispensaries	11
Tuberculosis Hospitals	2
Leprosy Hospitals	7
Rehabilitation Institute and Mental Health	1
TOTAL	318

4.2 The following Medical Services are rendered by the District Headquarters Hospitals / Taluk / Non-Taluk Hospitals:-

- Providing extended medical speciality services like Medicine, Surgery, Obstetrics and Gynaecology, Ophthalmology, E.N.T.,

Venerology, Orthopaedics, Anaesthesiology, Child Health, Comprehensive emergency Obstetrics and Newborn Care (CEmONC), Dental, Psychiatry, ambulance Services, Laboratory Services, Leprosy, Tuberculosis, diabetology, Cardiology and Non-Communicable Diseases (NCD).

- Accident and Emergency Services, Family Welfare and Maternity and Child Health, TB Control and Blindness Control Programmes, Tamil Nadu Illness Assistance Society activities and District Mental Health Programme.
- Comprehensive emergency Obstetrics and Newborn Care (CEmONC) in 93 hospitals including all District Headquarters Hospitals and Newborn Stabilization Units (NBSUs) in 110 hospitals and Neonatal Intensive Care Units (NICU) in 38 Government Hospitals exclusively for the Maternity and Child Welfare.

4.3 ADMINISTRATIVE STRUCTURE

DIRECTOR OF MEDICAL AND RURAL HEALTH SERVICES	
ADDITIONAL DIRECTOR OF MEDICAL AND RURAL HEALTH SERVICES (MEDICAL)-(PLANNING AND DEVELOPMENT)-(INSPECTION)-(TB)-(LEPROSY)-(ADMINISTRATION) JOINT DIRECTOR OF MEDICAL AND RURAL HEALTH SERVICES – (MEDICAL) (CEmONC) (ACT) (NCD)(TB)	
FINANCIAL CONTROLLER	
Joint Director of Health Services	<ul style="list-style-type: none"> • District Headquarters Hospitals • Taluk Hospitals • Non-Taluk Hospitals • Dispensaries • Women and Children Hospital • TB Hospitals / Clinics • Leprosy Hospitals
Deputy Director of Medical and Rural Health Services and Family Welfare	Family Welfare Programme in the District
Deputy Director of Medical Services (TB)	TB Control Programme in the District
Deputy Director of Medical Services (Leprosy)	Leprosy Control Programme

4.4 This Directorate is implementing many National Programmes such as National Tuberculosis Elimination Programme, District Mental Health Programme, etc and other important State and Central Acts like Tamil Nadu Clinical Establishments (Regulation) Act, 1997, Pre-consumption and Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, 1994 (PC&PNDT), Human Organs Transplantation Act, 1994 etc. which are explained in subsequent relevant chapters.

Chapter - 5

PUBLIC HEALTH AND PREVENTIVE MEDICINE

“The obligation of the Government is to protect the public health, safety, morals and general welfare.”

5.1 The Department of Public Health and Preventive Medicine in Tamil Nadu provides the Primary Health Care services in the State through 1,807 Primary Health Centres (PHCs) including 424 Upgraded Primary Health Centres in rural areas and 460 Urban Primary Health Centres in urban areas including 140 Urban PHCs in Greater Chennai Corporation to achieve quality services and **Health for All**. There are 8,713 Health Sub Centres functioning in the State as first level of service delivery units for the public in Primary Health Care. The Directorate of Public Health and Preventive Medicine was established during 1923 and the State of Tamil Nadu has the distinction of having been the first State to have a separate set up and Directorate exclusively for Public Health. The Department's main motto is to prevent disease, prolong life and promote health through organized measures. It also monitors the health needs, trends at community level through surveillance of diseases and risk factors. Commendable services are rendered by this Department during the Pandemic

situations within the reach of everyone in the community and ensuring social justice and equity. The functions of Public Health includes health promotion through healthy behavior, prevention and control of Communicable and Non-Communicable diseases, organizing and provision of community based maternity and child health services including immunization and family welfare services.

5.2 Health facilities functioning under DPH&PM:

Health Sub Centres	8,713
Primary Health Centres Rural	1,807
Urban Primary Health Centres	460
Block PHCs	385
Urban CHCs in Chennai Corporation	15
Upgraded PHCs	424
Other Supporting Units	
Zonal Entomological Teams	9
State Public Health Lab	1
District Public Health Lab	32
Filaria Control Units	5
Filaria and Malaria Clinics	42
Japanese Encephalitis Control Units	3
Water Analysis Lab	4
Regional Vaccine Store	10
Regional Training Institutes	7
ANM Training Schools	11

5.3 The DPH&PM functions at the State level/District level and Block level as indicated below:

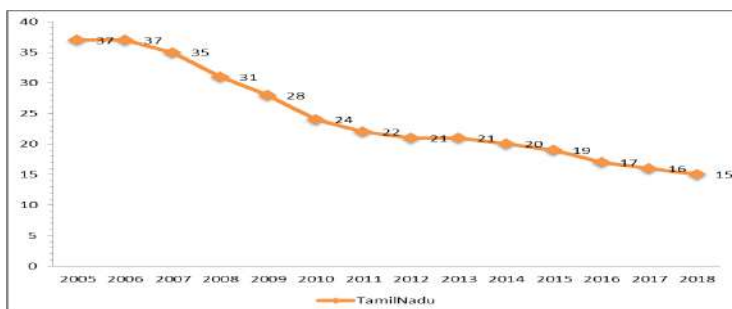
Director	
Director (Officers on Special Duty)	
Additional Director	
Joint Directors (Programmes)	
<ul style="list-style-type: none"> • Financial Advisor and Chief Accounts Officer • Personnel Officer and Joint Director (Human Resource Management and Administration) 	State Level
<ul style="list-style-type: none"> • Deputy Directors of Health Services • Principals of Regional Training Centres and ANM Schools • Health Officers • Regional Entomologists and District level Entomologists • District Epidemiologist 	Region/ District Level
<ul style="list-style-type: none"> • Block Medical Officers, • Medical Officers • Institutional and Field Health Functionaries • Health Inspector • Village Health Nurses 	Block / Village Level

5.4 Demographic and Health Indicators of the State: The estimated mid-year Population of

the State for the year 2021 is 7.85 crore. The State has 45 Health Unit Districts (HUD) excluding to Chennai Corporation. The State has the lowest Total Fertility Rate (TFR) of 1.6 and an Infant Mortality Rate (IMR) of 15 per 1,000 live births as per Sample Registration System (SRS) 2018.

5.5 Infant Mortality Rate (IMR): The Infant Mortality Rate which was 37 per 1000 Live Births in 2005 has been reduced gradually to 15 per 1,000 live births in 2018 as per the Sample Registration System. Tamil Nadu is the second lowest among the major states in the country. Multipronged efforts are being taken to bring down the Infant Mortality Rate by focusing on the components such as the neo-natal mortality rate etc.,

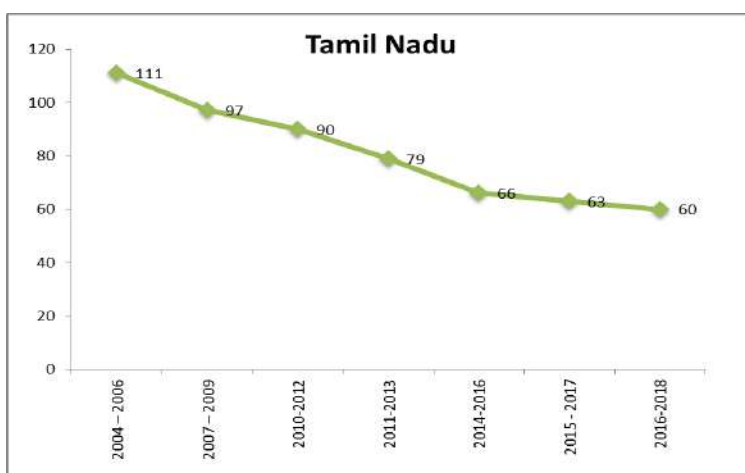
INFANT MORTALITY RATE



Source : Sample Registration System (SRS)

5.6 Maternal Mortality Ratio: The Maternal Deaths have been reduced significantly by the State through various Medical facilities, development and programme interventions. The Maternal Mortality Ratio (MMR) has been considerably reduced to 60 as per the SRS 2016-18. The State has achieved nearly 100% institutional delivery and 97.6% Antenatal mothers are registered within the first trimester of pregnancy. The MCH activities are documented and monitored through PICME and HMIS portals. Community based and institutional audit are periodically conducted for effective monitoring of Maternal Deaths.

MATERNAL MORTALITY RATIO



5.7 Primary Health Care:

Rural

PHC Infrastructure: Rural PHCs are established for 30,000 population in plain areas and 20,000 in hilly areas. During 2005, 1,417 PHCs were functioning and to cater the needs of Public, the number of Primary Health Centres were increased and now in Tamil Nadu 1,807 Primary Health Centres are functioning in 385 Blocks for preventive and curative health care services to the rural people. 24x7 delivery care services are available in 1,716 Primary Health Centres.

Urban

In Urban areas, 460 (320+140 GCC) Urban PHCs are providing 24x7 Health Care Services.

5.8 Primary Health Centres Buildings:

Rural

Out of 1,807 Primary Health Centres 1,763 PHCs are functioning in Government Buildings. 44 Primary Health Centres are functioning in rent free building. Construction work is under progress in 10 Primary Health Centres. Construction work is to be commenced in 8 Primary Health Centres. Land transfer / Alternate site selection is under process for construction of 26 Primary Health Centres.

Urban

Out of 460 Urban Primary Health Centres, 316 UPHCs are functioning in Government Buildings. 4 Urban Primary Health Centres are functioning in rent free buildings. The remaining 140 Urban PHCs are functioning under the Greater Chennai Corporation control.

5.9 Upgradation of Primary Health Centres: The Government have decided to provide atleast one 30 bedded Health Institution in each Block in a phased manner. During 2007-2008, 75 Primary Health Centres were upgraded with 30 bed facilities. At present 424 Primary Health Centres have been upgraded in all the 385 Blocks. The Upgraded Primary Health Centre is equipped with modern equipments like Ultra Sonogram, Portable ECG, Semi Auto Analyzer, Boyles apparatus improved laboratory facilities and increased human resources.

5.10 The Services provided by a Primary Health Centre:

- Outpatient and inpatient services, antenatal care, delivery care, postnatal care and family welfare services
- Treatment for infectious diseases like

diarrhoea, fever and other infectious diseases

- Community Based Maternal and Child Health Services
- Prevention and Control of Communicable Diseases
- Screening of Non-Communicable Diseases namely diabetes, hypertension and cancer and follow up
- School Health Services - early identification and early treatment of 4Ds – Defects at Birth, Development Delay and Disability, Deficiency and Diseases. This early intervention helps to improve the quality of life and longevity of the life of the child.

5.11 Implementation of Various National Health Programmes at PHC level

- Reproductive and Child Health Programme
- Universal Immunization Programme
- National Family Welfare Programme
- National Anaemia Control Programme
- National Iodine Deficiency Disorder Control Programme
- National Water and Sanitation Programme

- National Vector Borne Diseases Control Programme.
- National Diarrhoeal Diseases Control Programme
- National Tuberculosis Control Programme
- National Leprosy Eradication Programme
- National AIDS Control Programme
- Integrated Disease Surveillance Programme
- National Blindness Control Programme
- National Programme for Prevention and Control of Fluorosis
- National Programme for Prevention and Control of Deafness
- National Vitamin A Deficiency Disorder Control Programme
- National Tobacco Control Programme
- National Rural and Urban Health Mission Programmes
- Tamil Nadu Health System Reform Program

Camps and Campaigns

- Intensified Pulse Polio Immunisation camp
- Mission Indradanush Campaign for improving immunization coverage
- Intensified Diarrhoea Control
- National Deworming Program

- Vitamin 'A' campaign
- Speciality Medical Camps in rural areas
- Fever treatment camps
- School Health Camps, Health education and awareness campaigns.

5.12 Health Sub Centre (HSC): The Health Sub Centre is the peripheral and first contact point between the public healthcare system and the community. One HSC is established for 5,000 population in plain areas and 3000 in hilly areas. Each HSC is manned by a Village Health Nurse (VHN) and one Male Health Inspector for every three HSCs. The average geographical area covered by a HSC is about 13.49 sq.km. and at present 8,713 HSCs are functioning in Tamil Nadu. HSCs are the hub for delivering Maternal and Child Health (MCH) and Family Welfare (FW) services to the people in the rural areas. HSCs are supported by Primary Health Centres (PHC), Community Health Centres (CHC), Hospital on Wheels (HoW) and School Health Teams (RBSK).

5.13 Comprehensive Primary Health Care Services - Health and Wellness Centres in Tamil Nadu: Universal Health Coverage Project aims to bring comprehensive set of services at the doorstep of the people thereby reducing out-of-pocket

expenditure. UHC also aims to address the healthcare needs of the people in the long-term. The full spectrum of essential, quality health services should be covered including health promotion, prevention and treatment, rehabilitation and palliative care. The Sub-Centre strengthening is the pillar for the UHC program. In accordance to Government of India mandate, the State has accorded permission to transform Health Sub-Centres (HSCs), Primary Health Centres (PHCs) and Urban Primary Health Centres (UPHCs) as Health and Wellness Centres (HWCs) to provide additional services.

5.14 Health and Wellness services under UHC:

The HWCs (HWC PHCs/ HWC HSCs) provides a set of 12 Comprehensive services including Preventive, Promotive, curative Rehabilitative and Palliative care for a package of services related to RMNCH+A, Communicable diseases, Non-communicable diseases, Ophthalmology, ENT, Dental, Mental, Geriatric care, treatment for acute simple medical conditions and emergency & trauma services.

Community based assessment checklist: In order to control Non-Communicable Diseases, the state is using a Community based assessment

checklist (CBAC) for universal screening of eighteen plus population to sensitize and mobilize the community for availing services for chronic illness at HWC.

5.15 Hospital on Wheels Programme: Mobile Medical Units were launched to provide health care services in remote villages and far flung areas in 2007. 100 Mobile Medical Units were procured for implementation of this scheme. Further 285 Mobile Medical Units were procured during 2008. The Mobile Medical Camps were being conducted in all the 385 blocks in Tamil Nadu with one Medical Officer, One Staff Nurse, One Driver and one Attender cum cleaner comprising a Mobile Team. In 2011-12, the existing 385 Mobile Medical Units were upgraded as Hospital on Wheels with additional manpower, Laboratory facilities and other Diagnostic equipments. At Present, 476 Hospital on Wheels teams are functioning in the state. 416 Hospital on Wheels teams in rural areas, 5 Hospital on Wheels in Tiruppur, Madurai, Coimbatore, Salem and Tiruchirappalli Corporations each one and 5 in Greater Chennai Corporation are functioning. Besides this, 50 Mobile Medical Clinics were sanctioned, 1 each for 35 Districts and 15 for Greater Chennai Corporation to provide medical facilities to the construction workers at a cost of

Rs.16.398 crore. The Ultimate aim of Hospital on Wheels Programme is to provide high quality medical care with focus on mother and child health services and non communicable diseases covering all the remote villages and hamlets as per the Fixed Tour Programme (FTP) specifically for each block. Information boards about the day and time of visit are permanently displayed at the camp site. 40 camps are being conducted per month per block as per FTP. High risk areas like temporary settlements are given high priority. People with diabetes and hypertension are given medicines for one month period.

5.16 Speciality Medical Camp: ‘Varumun Kappom Thittam’ was introduced during 1999-2001 for the benefit of people of Tamil Nadu by free medical examination and treatment. ‘Varumun Kappom Thittam’ covered villages and towns and the Scheme was extended to prisoners also. In ‘Varumun Kappom Thittam’ 89 diseases were listed and camps conducted using modern equipments with 68 types of allopathy medicines and 18 types of siddha medicines. Since, ‘Varumun Kappom Thittam’ was not continued during 2001-2006 but the said programme was revived in 2006, to facilitate early detection and treatment of illness. This scheme envisaged to conduct 9000

Medical camps by teams of Medical experts all over the State. This scheme provides comprehensive health check up, treatment and health education to the rural and urban people. These camps were conducted at the Health Sub Centre level, every week covering 5000 population. In addition, camps were held in the urban areas also. The Government will revamp the outreach services.

5.17 Dr. Muthulakshmi Reddy Maternity Benefit Scheme: Dr. Muthulakshmi Reddy Maternity Benefit Scheme (MRMBS) was introduced by late Hon'ble Chief Minister of Tamil Nadu in the year 1989 with a noble objective of providing assistance to poor pregnant women/mothers to meet expenses on nutritious diet, to compensate the loss of income during motherhood, to avoid low birth weight of newborn babies and aimed at reducing IMR and MMR. During the year 2020-21 Rs.8.59 lakh mothers benefitted to an amount of Rs.884.44 crore. Presently, an amount of Rs.18,000/- is given to each eligible pregnant women in installments. From this amount two Nutrition Kits (each worth of Rs.2,000/- comprising iron tonic and nutrition supplements to reduce anaemia amongst the pregnant women and improve the birth weight of infants) are distributed to the beneficiaries and the balance cash benefit of

Rs.14,000/- transferred to the bank account of the beneficiaries.

5.18 Menstrual Hygiene Programme: The objective of the Scheme is to increase awareness among adolescent girls on menstrual hygiene, build self-esteem and empower girls for greater socialization to increase access to use of high quality sanitary napkins and to ensure safe disposal of sanitary napkin. This Programme was launched on 27.03.2012. Under this scheme 3 packs of priceless beltless sanitary napkins containing 6 pads per packs are distributed every 2 months for each Adolescent Girl who attained puberty from 10-19 years of age. Totally 18 packs for each adolescent girl are given for a year. Both School and non School going girls in rural areas are covered. 31.81 lakh adolescent girls are benefited every year. The sanitary napkins are procured through Tamil Nadu Medical Services Corporation Limited. The belt type sanitary napkin are distributed to post-natal mothers who delivered in Government Institutions at 7 packs each (6 pads per pack). 3.96 lakh post-natal mothers delivered in the Government Institutions have benefitted during 2020-2021. The procurement of belt type sanitary napkins is made through Self Help Groups (SHG) by Tamil Nadu Corporation for Development of

Women through Tamil Nadu Medical Services Corporation Limited. Priceless belt type sanitary napkins are also provided to women prison inmates and female inpatients in the Institute of Mental Health, Chennai at the rate of 18 packs (6 pads per pack) for a year. 3,000 women prison inmates and 1,900 women as in patients in Institute of Mental Health have benefitted under this scheme during 2020-21. This Scheme is now extended to adolescent girls in the urban areas and women inpatients in government institutions in the reproductive age group of 15-49 years. 14.9 lakh adolescent girls who have attained puberty will get benefitted under this scheme in urban areas.

5.19 Grievance Redressal: 2,580 Closed User Group (CUG) mobile connections have been distributed to all the Nodal Officers and District level Officers in the Health Department for the Real Time Grievance Redressal related to health care service.

5.20 Facilities for Lactating Mothers: Babies who are breast fed are generally healthier and achieve optimal growth and development compared to those who are fed formula milk. Infants who are not breastfed are at an increased risk of illness that can compromise their growth and raise the risk of death or disability. With a view to facilitate breast feeding

even during travel, rooms providing privacy for breast feeding was inaugurated in 352 bus stands / terminus.

5.21 The department is actively involved in the implementation of Makkalai Thedi Maruthuvam and the scheme is described in detail separately.

5.22Other Programmes: A kit containing 15 items are provided to the mothers delivered in Government Health Facilities. A scheme for the age group of 30 years and above wherein 25 investigation services are rendered free of cost in all upgraded PHCs/Block PHCs is implemented. A number of other programmes and activities implemented by this department are separately described in various chapters relating to Communicable Diseases, State Health Society, Other National Programmes, Certain Important Issues etc.,

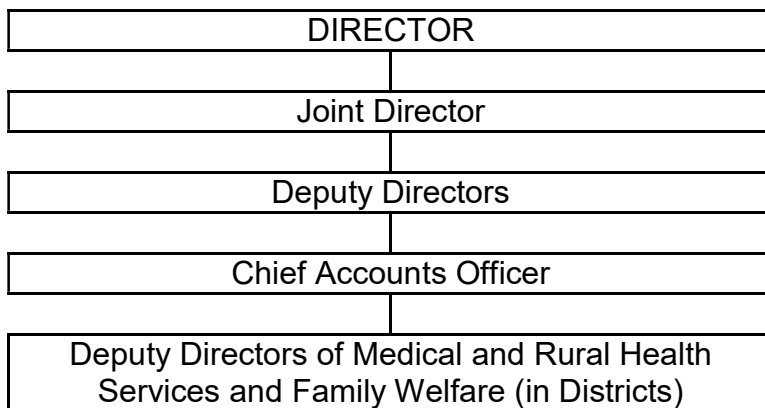
Chapter - 6

FAMILY WELFARE PROGRAMME

6.1 India is the first country that launched a National Family Planning Programme in 1952, emphasizing fertility regulation for reducing birth rates to the extent necessary to stabilize the population at a level consistent with the socio-economic development and environment protection. Since then the demographic and health profiles of India have steadily improved. Tamil Nadu is considered as a pioneer in the implementation of the Family Welfare Programmes in the country. Family Welfare Programme is being implemented since 1956 as people's programme in the State as 100% centrally sponsored programme. The objective of the programme is to maintain the Total Fertility Rate to the extent necessary to stabilize the population at a consistent level. Family Welfare services are provided through the Government health facilities as well as through the approved private facilities to the eligible couples to stabilize the population of the State. Since the nineties, the focus has been shifted from a "Target based approach" to "Community Needs Assessment Approach" where importance is given to meet the unmet needs for

Family Planning services and improving the Maternal and Child Health services.

6.2 Administrative Structure:



6.3 Demographic Indicators: The demographic scenario of the State (SRS) is furnished below:

Sl. No	Indicators	Current level
1	Crude Birth Rate (2018)	14.7 /1000 population
2	Crude Death Rate (2018)	6.5 / 1000 population
3	Total Fertility Rate (2018)	1.6
4	Infant Mortality Rate (2018)	15.0 /1000 live births
5	Maternal Mortality Ratio (2016-18)	60 /1,00,000 live births

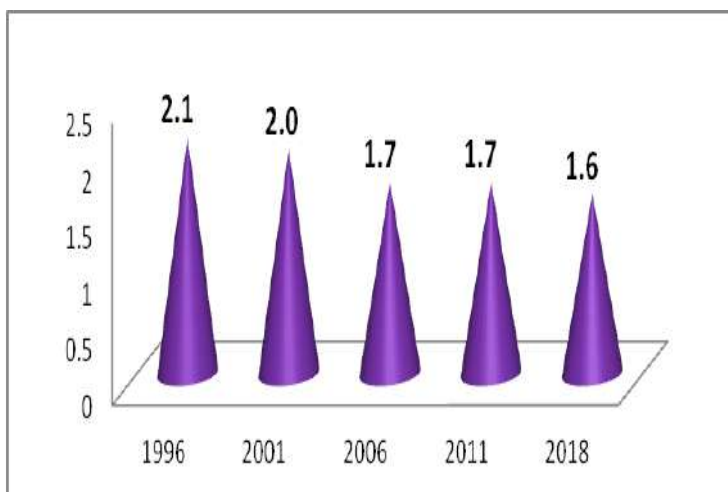
6	Natural Growth Rate (2018)	0.83 % annually
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(Source: SRS – 2018)

6.4 Family Welfare Programme Outcomes

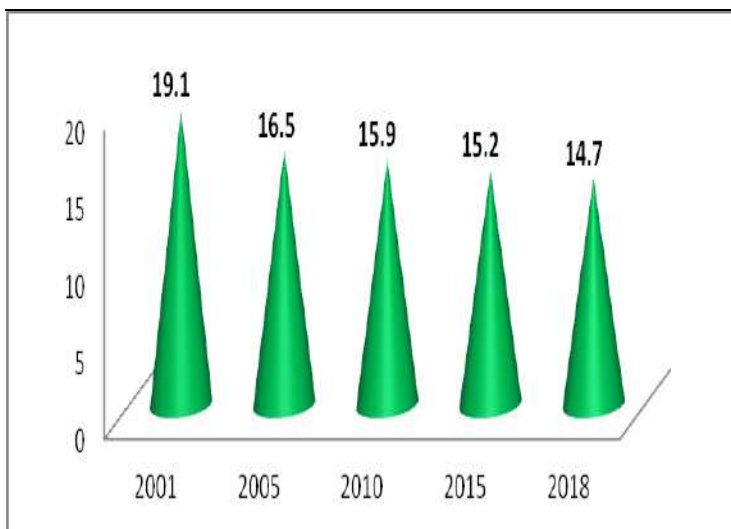
Total Fertility Rate (TFR): Tamil Nadu is one of the States in the country with low TFR of 1.6 well below National level of 2.2. Total Fertility Rate indicates the average number of children expected to be born to a woman during her reproductive span of 15-49 years. Thus the Population Stabilization in Tamil Nadu would be expected on projection in the phase of year 2031-2035.

Trends in Total Fertility Rate (TFR)



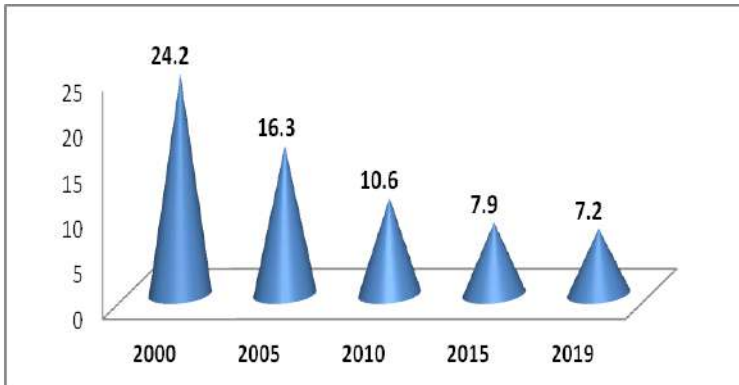
Crude Birth Rate (CBR): Crude Birth Rate is number of live births per 1000 population in a year. The current level of crude birth rate in Tamil Nadu is 14.7 as per the Sample Registration System (SRS) - 2018.

Trends in crude Birth Rate:



Higher Order Births: Third and above order of Births are termed as Higher Order Births. The state has shown significant decrease in the percentage of Higher Order Births which has been reduced from 24.2 (2000) to 7.2 (2019). Further steps to reduce the HOB rate is under progress so as to reduce the Maternal Death and Infant Death among the HOB delivery.

Trends in Higher Order Births:



6.5 Family Welfare Services Available in the State: Family welfare services are provided at free of cost to the eligible couples in all the Government health facilities.

Permanent Methods:

For Male	Conventional Vasectomy and No Scalpel Vasectomy (NSV)
For Female	Puerperal Sterilization (Tubectomy), Mini-Lap and Laparoscopic Sterilization.

Temporary Spacing Methods:

Intra Uterine Contraceptive Device (IUCD) - PPIUCD/Interval IUCD/PAIUCD	Copper 'T' 380A (10 years) and 375 (5 years)
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Oral contraceptive Pills (OP)	Mala N and Chhaya Weekly Pills (Centchroman Pills)
Injectable contraceptive	Antara -Depot Medroxy Progesterone Acetate (DMPA)
Contraceptive Condoms	Nirodh

Emergency Contraceptive Pills (E.Pills)

Medical Termination of Pregnancy: Manual Vacuum Aspiration (MVA) (4 to 12 weeks), Medical Method of Abortion (MMA) (4 to 7 weeks), Electrical Vacuum Aspiration (EVA) (4 to 12 weeks), and surgical method of abortion (12 to 20 weeks)

6.6 Family Welfare Service Rendering Public Facilities (Primary, Secondary and Tertiary Level): The facilities providing Family Welfare services in our State are given in the table below:

1	Health Sub Centres	8713
2	Primary Health Centres	1422
3	Community Health Centres (Block)	385
4	Urban Primary Health Centres	479
5	Government Hospitals and ESIs	314
6	Medical College Hospitals	36

7	Voluntary Organization and Approved Private Nursing Homes (Under Public Private Partnership)	2581
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6.7 Schemes implemented under the Family Welfare Programme

Male sterilization: It is ongoing Programme implemented in the State. No Scalpel Vasectomy (NSV) is a simple procedure of Family Planning Sterilization Technique for Male. Special awareness campaigns are being conducted to motivate males to accept No Scalpel Vasectomy. It is proposed to conduct NSV camps in all the 385 Blocks in the State during the year 2021-2022 at a cost of Rs.25 lakh. To improve the male participation in NSV Sterilization Programme, “Vasectomy Fortnight” is observed in the state from 21st November to 4th December every year for better performance. In the year 2020-2021, 689 Male Sterilizations have been performed.

Female Sterilization: In Tamil Nadu, 36 Medical College Hospitals, 18 Government Headquarters Hospitals, 283 Government Hospitals, 415 Primary Health Centres, 26 Health Posts in Municipal Corporations and 2,581 approved private nursing homes in the state are providing Female

Sterilization Services. Delivered mothers having two and above living children are counselled for availing sterilization services before discharge from the facilities. Apart from providing sterilization to delivered mothers, the interval sterilization (Mini-Lap / TAT) and Laparoscopic surgery are also provided to eligible mothers. While all the Medical College Hospitals and District Headquarters Hospitals are imparting the Puerperal Sterilization and Mini Lap/TAT Training Services, 11 Medical Colleges and 2 District Headquarters Hospitals are imparting training on Laparoscopy in the State. In the year 2020-21, 2,25,145 Female Sterilizations have been performed.

Post Partum Intrauterine Contraceptive Device (PPIUCD)/ Post Abortion Intrauterine Contraceptive Device (PAIUCD): The PPIUCD insertion among the delivered mothers and PAIUCD insertion among the MTP done mothers are encouraged by providing the incentive of Rs.300/- for acceptors. The PPIUCD and PAIUCD services are increasing the birth spacing to 36 and above months. It ensures the Maternal and Child Health in the State. In the year 2020-2021, 380622 IUCD insertion have been performed. It is proposed to insert four lakh IUCD during the year 2021-22.

Injectable contraceptive: Depot Medroxy Progesterone Acetate(DMPA) - Antara and Centchroman Weekly pills (Chhaya): Injectable contraceptive (Antara) and Centchroman Weekly Pills (Chhaya) were introduced in the year 2017-18 in Tamil Nadu and these services are availed by the eligible couples through the Government health facilities. Further these new Family Welfare spacing methods are increasing the users in the Family Welfare Programme year by year. In the year 2020-21 total number of mothers covered by Antara is 64,807 and Chhaya is 1,70,617.

Medical Termination of Pregnancy (MTP) Programme: Medical Termination of Pregnancy (MTP) is a health care measure which helps to reduce maternal morbidity and mortality through provision of safe abortion services. Annually around 80,000 to 95,000 MTPs are performed in the Government and private Health facilities. In order to provide safe abortion services to the needy mothers, the Doctors in the Government Primary Health Centres and Government Hospitals are given Comprehensive Abortion Care (CAC) training in a regular manner. In the State, 21 Medical College Hospitals and District Head Quarter Hospital, Cuddalore are functioning as CAC/MTP Training Centres in the State. For the year 2021-22

a sum of Rs.28.69 lakh have sanctioned towards provision of Comprehensive Abortion Care training for 190 doctors in Primary Health Centres. The Permanent Medical Boards have been constituted in 19 Medical College Hospitals in the State. The function of the Permanent Medical Board is to examine the minor girl or woman when referred by the Hon'ble Supreme Court / High Court / District Court for late term termination (i.e., beyond 20 weeks of gestation) and provide opinion regarding termination or continuation of pregnancy and its impact on her health as well as on foetal condition / foetal health. The Permanent Medical Board will take final decision as per the directions of the court.

Family Planning Logistic Management Information System (FP-LMIS) Training: Home Delivery of Contraception has introduced in the State by imparting training to ASHA/Anganwadi Workers for covering 1,000 population and the Family Welfare commodities are monitoring through the Family Welfare – Logistics and Management Information System (FP-LMIS) web portal in the State to attain the modern Contraceptive Prevalence Rate (mCPR) – 70% and the Unmet need “NIL” by 2030 which are set as key indicators of Family Welfare Programme in the Sustainable Development Goals (SDG). It will strengthen the

supply chain of Family Welfare commodities and paves the way to attain mCPR 70% and bring down the Unmet need as “NIL” by 2030.

6.8 Information, Education and Communication (IEC) Activities: To create awareness among eligible couples to accept permanent and temporary family planning methods, the following IEC activities are being conducted in rural / urban areas all over the State.

- i. World Population Day is celebrated every year on 11th July in the State, District and Block levels to sensitize population crisis, to emphasize small family, to promote gender equality, spacing methods and to educate about marriage age.
- ii. For Male Sterilization, new method of No Scalpel Vasectomy (NSV) fortnight is being celebrated throughout the State once in a year among general public and factory employees and unorganized labourers.
- iii. Family Welfare dramas are conducted at Block level emphasizing small family, gender equality, spacing and increasing the age of marriage and reduction of Higher Order Birth.

- iv. Family Planning methods are also exhibited in the State and District level Trade fair Exhibitions to create more awareness.
- v. LED Boards depicting the FW method are also displayed in Hospitals and Public Places.
- vi. Priority Districts with high HOB are identified for strengthening the usage of Family Welfare Contraceptive among the eligible Mothers. Issuing the Family Planning Card to followup the mothers who are accepting the Family Welfare Contraceptive.

Establishment of mobile Family Welfare Services to out-reach areas will achieve the ultimate aim to improve the Modern Contraceptive Prevalence Rate (mCPR)

6.9 Family Planning Indemnity Scheme

(FPIS):The Government of India introduced the Family Planning Indemnity Scheme with effect from 1st April, 2013 with the following insurance benefits for the family welfare sterilization acceptors and service providers:

Death following sterilization in hospital or within 7 days from the date of discharge from the hospital	Rs.2,00,000
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Death following sterilization within 8 to 30 days from the date of discharge from the hospital	Rs.50,000
Failure of sterilization leading/not-leading to child birth	Rs.30,000
Cost of treatment upto 60 days arising out of complication from the date of discharge	Actual cost not exceeding Rs.25,000
Indemnity insurance per doctor per facility but not more than 4 cases per Doctor in a year	Up to Rs.2.00 lakh per case of litigation

6.10 State and District Quality Assurance

Committees: These Committees have been constituted to ensure the quality of family welfare services provided in the state. These committees review the deaths, failures and complications arising out of sterilization and recommend for the payment of insurance claims and also suggest for improvement of quality of the services.

6.11 Compensation to Sterilization Acceptors:

Compensation for loss of wages to the sterilization acceptors is paid in the State as detailed below:

Acceptors of male sterilization in public health facilities	Rs.1,100
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Acceptors of female sterilization belonging to below poverty line and SC / ST in public health facilities	Rs.600
Acceptors of female sterilization belonging to above poverty line in public health facilities	Rs.250

Tamil Nadu continues to focus on family welfare by continuing awareness on this issue and creating community needs.

Chapter - 7

MEDICAL AND RURAL HEALTH SERVICES

(Employees State Insurance Scheme)

7.1 The Employees State Insurance (ESI) Scheme is a comprehensive Social Security Scheme designed to accomplish the task of protecting the Insured Persons in the organised sector against the events of sickness, maternity, disablement and death due to employment injury or occupational diseases.

7.2 Network of ESI Hospitals and Dispensaries: In Tamil Nadu, medical care is provided to the insured persons of the ESI Scheme through a network of 223 ESI Dispensaries and following 10 ESI Hospitals. The Doctors and Para Medical Staff are placed from the Health and Family Welfare Department.

- Seven ESI hospitals at Chennai-Ayanavaram, Madurai, Salem, Vellore, Tiruchirappalli, Hosur and Sivakasi are functioning under the control of the Director of Medical and Rural Health Services (ESIS).
- One ESIC medical college hospital at Coimbatore functions under the control of Director of Medical Education.

- Two ESIC hospitals, ESI Medical College Hospital, Chennai-K.K.Nagar and Tirunelveli are directly run by the ESI Corporation, New Delhi.

Super speciality services are also being provided to the insured persons and their family members through tie-up in private hospitals.

7.3 Administrative Setup of ESI Scheme in Tamil Nadu: Director is the overall incharge of the State for Administration, Finance, Implementation and Development of Scheme. The administration of ESI Dispensaries in the State is done by 7 Regional Administrative Officers. They are functioning at Chennai, Coimbatore, Madurai, Salem, Tirunelveli, Tiruchirappalli and Vellore.

7.4 All the seven regions have Central Medical Stores (ESI) to supply drugs and dressings to various ESI Dispensaries. The administrative control of all the personnel comes under the Director (ESI), Joint Director (ESI) and Deputy Director (ESI) functioning from Chennai. In addition to the seven Regional Administrative Medical Officers (ESI), there are Medical Superintendents to run ESI Hospitals at Ayanavaram-Chennai, Madurai, Sivakasi, Tiruchirappalli, Salem, Vellore and Hosur.

7.5 AYUSH Units under ESI Scheme: A combined treatment of Ayurveda, Yoga, Unani, Siddha and Homeopathy (AYUSH) is also extended, in addition to allopathic treatment facilities provided to the insured persons.

- Ayurveda units are functioning in eight ESI hospitals at Ayanavaram, Coimbatore, Madurai, Salem, Vellore, Tiruchirappalli, Hosur and Sivakasi. In addition Ayurveda units are also functioning at 3 ESI Dispensaries in Madurai Region and at 2 ESI Dispensaries in Salem Region.
- Yoga units are functioning in eight ESI hospitals at Ayanavaram, Coimbatore, Madurai, Salem, Vellore, Tiruchirappalli, Hosur and Sivakasi
- Unani units are functioning in three ESI hospitals at Ayanavaram, Coimbatore and Madurai. In addition Unani units are also functioning at 2 ESI Dispensaries in Salem Region and at 1 ESI Dispensary in Madurai Region.
- Siddha units are functioning in eight ESI Hospitals at Ayanavaram, Coimbatore, Madurai, Salem, Vellore, Tiruchirappalli, Hosur and Sivakasi. In addition, Siddha units

are also functioning in 20 ESI dispensaries at Tambaram, Thiruvottiyur, Sriperumpudur, Thoothukudi, Rajapalayam, Kovilpatty, Pollachi, Thudiyalur, Pallipalayam, Kumbakonam, Triplicane, Avadi, Korattur, Dindigul, Tirunagar, Udumalpet, Kattoor-1, Tiruppur-1, Ambur and Ranipet

- Homeopathy units are functioning in three ESI hospitals at Ayanavaram, Coimbatore and Madurai. In addition Ayurveda units are also functioning at 2 ESI Dispensaries in Madurai Region.

7.6 The ESI Dispensaries provide primary care to the Insured Population and ESI Hospitals provide secondary and tertiary care. The details of the activities of this department have been brought out in the Labour Welfare and Skill Development Department Policy Note.

Chapter - 8

INDIAN MEDICINE AND HOMOEOPATHY

8.1 The Indian Systems of Medicine (ISM) are ethnic to our country. ISM also encompasses Unani and Homoeopathy Systems as these two systems of Medicine have taken deep roots in this country even before the advent of modern Medicine. In Tamil Nadu, the Directorate of Indian Medicine and Homoeopathy governs the functioning of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy Systems. Siddha system of Medicine is considered to be the ancient indigenous medical system of India, having its origin in Tamil Nadu, dated around 3000 BC. Siddha Medical codified literatures are documented in Tamil Language and hence it is called TAMIL MARUTHUVAM. The axiomatic saying in Tamil “உணவே மருந்து” rightly depicts the significance of herbs in our daily food cycle from the time immemorial. The ISM operates on the Principle that “**prevention is better than cure**”. The Government of Tamil Nadu is committed to provide full opportunity for the growth and development of Indian System of Medicine and utilization of their potentiality, strength and revival of their glory. The ultimate goal of the State Government is to provide Siddha, Ayurveda, Yoga

& Naturopathy, Unani and Homoeopathy Medical treatment to the public at large so that the people can exercise their choice in accessing the Health Service.

8.2 The department of Indian Medicine and Homoeopathy is established by the Government of TamilNadu in the year 1970. The main objective of this department is to impart quality education for the UG and PG degree courses of Indian Medicine which includes all the five systems (Siddha, Ayurveda, Unani, Homoeopathy, Yoga & Naturopathy). The major role of this department is to provide best treatment in the 5 Indian Systems of Medicine, to the general public through the 1542 hospitals.

Administrative Structure

DIRECTOR
<ul style="list-style-type: none"> • Joint Director • Joint Director (Yoga & Naturopathy) (Ex-Officio)
<ul style="list-style-type: none"> • Financial Advisor and Chief Accounts Officer (Finance Department)
<ul style="list-style-type: none"> • Chief Scientific Officer / Director, Research and Development Wing for ISM
<ul style="list-style-type: none"> • Principals of Government Siddha, Ayurveda, Unani and Yoga & Naturopathy, and Homoeopathy Medical Colleges

<ul style="list-style-type: none"> • State Licensing Authority (Indian Medicine)
<ul style="list-style-type: none"> • Government Analyst, Drugs Testing Laboratory (Indian Medicine)
<ul style="list-style-type: none"> • Superintendent, Arignar Anna Government Hospital of Indian Medicine, Chennai
<ul style="list-style-type: none"> • District Siddha Medical Officers
<p>Government Siddha, Ayurveda, Unani, Yoga & Naturopathy, and Homoeopathy Dispensaries attached to Government Hospitals/ PHCs and ISM wards in Government Hospitals</p>

8.3 The salient features of Indian Medicine and Homoeopathy department are:

- Offering holistic healthcare to public by opening ISM & H wings at various locations in all the districts.
- Providing quality education in Siddha, Ayurveda, Unani, Yoga & Naturopathy and Homoeopathy for UG and PG students with all the necessary infrastructure for gaining systematic knowledge in the respective system.
- Promoting research and development activity in ISM&H for encouraging the manufacture of high quality standard ISM&H drugs and therapies.

- Upgrading the existing Government Indian Systems of Medicine and Homoeopathy Medical Colleges and to improve the standard of Medical Education in these systems
- Opening of new Medical Colleges in the systems of Siddha, Ayurveda, Unani, Yoga & Naturopathy and Homoeopathy.
- Establishing Centre of Excellence in the systems of Siddha, Ayurveda, Unani, Yoga & Naturopathy and Homoeopathy.
- Ensuring availability of quality drugs to public by monitoring quality drug manufacturing practices.
- Opening of Siddha, Ayurveda and Yoga & Naturopathy Life style clinics in all Government Hospitals.

8.4 ISM&H Health Services: The availability of ISM&H Government centres are as follows:

System	No. of Medical Centres
Siddha	1,081
Ayurveda	104
Unani	67

Yoga Naturopathy	&	180
Homoeopathy		110
Total		1,542

Inpatient facilities in ISM&H Hospitals

Sl. No.	Name of the Institutions	Siddha	Ayurveda	Unani	Homoeo	Yoga & Naturo	Total
1	Arignar Anna Government Hospital of Indian Medicine, Chennai – 106 GSMC, Chennai = 85+AAGHIM=35)	120	55	100	-	-	275
	Varma Department	35					35
2	Hospital attached to Government Siddha Medical College, Palayamkottai	350	-	-	-	-	350
3	Hospital attached to Government Homoeopathy Medical College, Thirumangalam, Madurai	0	-	-	50	-	50
4	Hospital attached to Government Ayurveda Medical College, Kottar, Nagercoil	0	100	-	-	-	100
5	Hospital attached to Government Yoga & Naturopathy Medical College, Chennai	0	-	-	-	100	100
6	Siddha, Yoga & Naturopathy Integrated AYUSH Hospital, Theni	25				25	50
7	Siddha, Yoga & Naturopathy Integrated AYUSH Hospital, Thiruvannamalai	25				25	50
8.	Hospital attached to International Institute of Yoga and Naturopathy Medical Science, Chengalpattu	-	-	-	-	300	300

9	District Head Quarters Hospital, Tiruppur	25	-	-	-	-	25
10	District Head Quarters Hospital, Dindigul	25	-	-	-	-	25
11	District Head Quarters Hospital, Erode	25	-	-	-	-	25
12	District Head Quarters Hospital, Kancheepuram	25	-	-	-	-	25
13	District Head Quarters Hospital, Nagapattinam	25	-	-	-	-	25
14	District Head Quarters Hospital converted to Medical College Hospital, Vellore	25	-	-	-	-	25
15	District Head Quarters Hospital converted to Medical College Hospital, Nagercoil	16	-	-	-	-	16
16	District Head Quarters Hospital converted to Medical College Hospital, Sivagangai	16	-	-	-	-	16
17	District Head Quarters Hospital, Karur	16	-	-	-	-	16
18	District Head Quarters Hospital, Kumbakonam	16	-	-	-	-	16
19	District Head Quarters Hospital, Mettur Dam, Salem	16	-	-	-	-	16
20	District Head Quarters Hospital, Namakkal	16	-	-	-	-	16
21	District Head Quarters Hospital converted to Medical College Hospital, Tiruvarur	16	-	-	-	-	16
22	District Head Quarters Hospital converted to Medical College Hospital, Tiruchirappalli	16	-	-	-	-	16
23	District Head Quarters Hospital converted to Medical College Hospital, Villupuram	16	-	-	-	-	16
24	District Head Quarters Hospital, Virudhu Nagar	16	-	-	-	-	16
25	District Head Quarters Hospital, Cuddalore	15	-	-	-	-	15
26	Taluk Hospital, Chidambaram, Cuddalore District	15	-	-	-	-	15
27	District Head Quarters Hospital, Pennagaram, Dharmapuri District	15	-	-	-	-	15

28	District Head Quarters Hospital, Ramanathapuram	15					15
29	District Head Quarters Hospital converted to Medical College Hospital, Thoothukudi	15	-	-	-	-	15
30	Non Taluk Hospital, Kadayanallur, Tenkasi District	15	-	-	-	-	15
Total		955	155	100	50	450	1710

ISM&H Medical Education

8.5 Under Graduate degree courses, (BSMS/BAMS/BNYS/BUMS/BHMS) in Siddha, Ayurveda, Yoga & Naturopathy, Unani, Homoeopathy and Post Graduate degree courses [M.D (S), M.D (H) and M.D (Y&N)] in the systems of Siddha, Homoeopathy, Yoga & Naturopathy under the administrative control of Indian Medicine and Homoeopathy department, imparted in the respective 7 Government Colleges and 39 Self Financing Colleges as follows:

S. No	Medical System	No. of Govt. Colleges	No. of Self-financing Colleges
1	Siddha	2	8
2	Ayurveda	1	5
3	Unani	1	0
4	Yoga & Naturopathy	2	17
5	Homoeopathy	1	9
Total		7	39

The details of Government Medical Colleges functioning under Indian Medicine and Homoeopathy department are as follows:

- Government Siddha Medical College and Hospital, Palayamkottai, Tirunelveli District
- Government Siddha Medical College, Arignar Anna Government Hospital of Indian Medicine (AAGHIM) campus, Arumbakkam, Chennai
- Government Yoga & Naturopathy Medical College and Hospital, AAGHIM campus, Arumbakkam, Chennai
- Government Homoeopathy Medical College and Hospital, Tirumangalam, Madurai District
- Government Unani Medical College, AAGHIM Campus, Arumbakkam, Chennai
- International Institute of Yoga & Naturopathy Medical Science, Chengalpattu.
- Government Ayurveda Medical College and Hospital, Kottar, Nagercoil, Kanyakumari District

8.6 Tamil Nadu has the unique credit of being the only State in the country where Government

Medical Colleges have been established in all the Indian Systems of Medicine and Homoeopathy. Number of seats available in the Government Colleges and the Private Colleges for admission to the Under Graduate (UG) and Post Graduate (PG) Courses of ISM&H are given as follows:

Sl. No.	Discipline	Details of seats available for admission				Grand Total	
		Government		Private			
		UG	PG	UG	PG	UG	PG
1.	Siddha	160	94	440	--	600	94
2.	Ayurveda	60	--	210	--	270	--
3.	Unani	60	--	--	--	60	--
4.	Yoga & Naturopathy	160	45	1550	--	1710	45
5.	Homoeopathy	50	--	710	55	760	55
Total		490	139	2910	55	3400	194

8.7 Co-location of Indian System of Medicine and Homoeopathy Centres to provide public Health Care: At present Indian System of Medicine and Homoeopathy treatment facilities are made available in Allopathy Medical College Hospital, Medical College at ESI, Multi Super Speciality Hospital, District Headquarters Hospitals, Taluk and Non-Taluk Hospitals and Primary Health Centres (including 475 wings funded under National Rural Health Mission)

and 74 AYUSH Wellness Clinics as shown below:-

	Siddha	Ayurveda	Unani	Homoeopathy	Yoga & Naturopathy	Total
ISM&H Centres run by State Budget						
Colleges	2	1	1	1	2	7
Major Hospital	3	2	1	1	1	8
MCHL	15	3	2	9	25	54
Medical College @ ESI	1	1	1	1	1	5
Multi Super SpecialityHpl. (Omanthurar)					1	1
DHQHpl	31	4	3	20	30	88
TalukHpl	191	2	0	8	31	232
Non TalukHpl.	58	2	4	0	0	64
PHC	406	25	14	6	2	453
Regular Dispy.	13	6		5	1	25
Tribal Dispy.	7					7
Mobile	1					1
Rural Dispy.	45	3				48
Total	773	49	26	51	94	993
NRHM Schemes						
NRHM at Taluk Hospital	4		1			5
Wings at PHC	271	52	39	57	20	439
Y & N Maternity Clinic (GPHC)					29	29
Y & N Maternity Clinic (Taluk Hospital)					2	2
Total	275	52	40	57	51	475

AYUSH Schemes						
Hospital under DME					2	2
Taluk	4			1	30	35
Non Taluk	2		1			3
PHC	26	3		1		30
Tribal (Mobile) unit	2				2	4
Total	34	3	1	2	34	74
Grand Total	1082	104	67	110	179	1542

*** A total number of 2,79,52,457 patients have been treated as Out- Patients and 96,168 patients have been treated as In-Patients in the above ISM&H centers, in the year 2020.**

8.8 AYUSH Paramedical Courses: The following Diploma Courses are being conducted under self supporting scheme at Government School of AYUSH Paramedical Courses at Government Siddha Medical College, Chennai and Government Siddha Medical College campus, Palayamkottai, Tirunelveli

(1) Diploma in Integrated Pharmacy

(2) Diploma in Nursing Therapy.

The courses are of two and half years duration and main objective is to make available institutionally qualified Pharmacists and Nursing Therapists in AYUSH system of medicine. The numbers of seats sanctioned for Diploma Course in Integrated Pharmacy and for Nursing Therapy are as follows:

Sl. No	Name of the Institution	Number of seats		Total
		Diploma in Integrated Pharmacy	Diploma in Nursing Therapy	
1.	Government Siddha Medical college, Chennai	50	50	100
2.	Government Siddha Medical college Palayamkottai, Tirunelveli	50	50	100
Total		100	100	200

8.9 State Drug Licensing Authority for Indian Medicine: The grant or renewal of a license to manufacture and sale of Ayurveda, Siddha and Unani drugs is being done by the State Licensing Authority (IM) as per Drugs and Cosmetics Act, 1940 and Rules, 1945 with effect from 29.11.2007. The State Licensing Authority is also approving authority for approval of institutions for carrying out quality checking tests on Ayurveda, Siddha and Unani drugs and raw materials used in their manufacture on behalf of licensees for manufacture for sale of Ayurveda, Siddha and Unani drugs. As per Drugs and Cosmetics Act, the Government of Tamil Nadu has appointed and notified the Director of Indian Medicine as Controlling Authority for Ayurveda, Siddha, Unani drugs vide G.O.No.493 H&FW Dept., dated 01.11.2019 for the purpose of taking approval/direction/permission to execute

regulatory enforcement. As per Rule 170 of the Drugs and Cosmetics Act, 1940 and Rules, 1945, the State Licensing Authority (IM) have been empowered to scrutinize the advertisement applications of Ayurveda, Siddha, Unani drugs and allotting the unique identification number (UIN). The Drugs Inspectors (IM) are authorized to monitor advertisement of Ayurveda, Siddha, Unani drugs for the areas within their respective jurisdiction vide G.O.(D).No.93, dated 11.01.2018 under Sub-section (1) of section 8 of Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954 and Rules, 1955.

8.10 State Drug Testing Laboratory: The primary function of Drug Testing laboratory (I.M) is to test the quality of statutory samples lifted and sent by the Drug Inspector (I.M) in discharging of their statutory function under section 33G of Drugs and Cosmetics Act, 1940. The Laboratory has been conferred with the statutory status. Advanced and modern equipment have been installed in the laboratory for the purpose of Standardization and quality control of ASU Medicine. Government Analyst, Drug Testing laboratory (I.M) Tamil Nadu has been notified as Government Analyst for Andaman Nicobar (Union Territory) to discharge the statutory duties as per Section 33F(2) of Drugs

&Cosmetics Act, 1940. The State Drug Testing Laboratory has the capacity to test about 3000 samples per year.

8.11 The Arignar Anna Government Hospital of Indian Medicine in Chennai: The Government of Tamil Nadu started the Arignar Anna Government Hospital of Indian Medicine in Chennai, in the year 1970, in order to cater to the health needs of Chennai City. The hospital has bed strength of 310 with all necessary facilities. The hospital offers treatment under all the systems of Indian Medicine and Homoeopathy (i.e; Siddha, Ayurveda, Unani, Homoeopathy and Yoga & Naturopathy). This hospital has latest fully automated analyzer used in the Bio-Chemistry laboratory for testing Patient samples. This Hospital has exclusive pharmacy for preparation of fresh medicine required for the treatment of patients under Siddha, Ayurveda, Unani. An approximate quantity of 3578 kg of Nilavembu Kudineer powder has been produced for the period from 01.01.2020 to 31.3.2021 and distributed to the dispensaries in and around Chennai. Moreover, 2752 Kg of Kabasura kudineer for prevention of Covid-19 infection and boost general immunity has been produced for the period from 01.01.2020 to 31.3.2021.

8.12 Tamil Nadu Medicinal Plant Farms and Herbal Medicine Corporation Limited (TAMPCOL):Tamil Nadu Medicinal Plant Farms and Herbal Medicine Corporation Limited (TAMPCOL) was established on 27th September 1983 with the main objective to manufacture quality medicines of Siddha, Ayurveda and Unani system. The Registered office functions at Anna Hospital Campus, Arumbakkam, Chennai and its factory, functioning at SIDCO Pharmaceutical Campus, Alathur near Thiruporur, Chengalpattu District. These factories are involved in manufacturing of 172 medicines. These medicines are supplied to all Institutions functioning under the Directorate of Indian Medicine and Homoeopathy, besides other Government Institutions and Tampcol's own sales outlets. Tampcol as a Nodal Agency, procures and supplies medicines, machinery and equipments, etc to the same institutions. The Authorized and paid up Share Capital of the Corporation is Rs.300.00 lakh. During the year 2021-22, the Corporation expects to achieve sales to the tune of Rs.6939.00 lakh with a net profit of Rs.476.16 lakh. A Magapperu Sanjeevi kit containing 11 Medicines is distributed to pregnant women through Siddha wing. Tampcol will continue its role in production and uninterrupted supply of Nilavembu Kudineer

and Kabasura Kudineer in coming financial years also, for the distribution of the same to Hospitals coming under the ambit of Indian System of Medicines, AYUSH Institutions, Corporation/Municipality dispensaries to prevent COVID-19. Tampcolwill continue its role in production and uninterrupted supply of Nilavembu Kudineer and Kabasura Kudineer in coming financial years also, for the distribution of the same to Hospitals coming under the ambit of Indian System of Medicines, AYUSH Institutions, Corporation/Municipality dispensaries to prevent COVID-19.

8.13.7.5% of Government Medical Seats Reserved for students Studied in Government Schools: As per the recommendations of the Commission, Constituted by the State Government under the Chairmanship of Hon'ble Justice P.Kalaiyaran (Retired), Tamil Nadu Admission to Undergraduate Courses in Medicine, Dentistry, Indian Medicine and Homoeopathy on preferential basis to students of Government Schools Act, 2020 (Tamil Nadu Act, 34 of 2020) making reservation of 7.5% Government seats to enable the students studied in Government Schools who are qualified in NEET to get admission in Medical Courses was notified in Government Gazette on 30.10.2020 and

brought into effect on 31.10.2020. Based on the above Act, during the year 2020-2021, 61 students studied in Government Schools got admission in the Siddha, Ayurveda and Homoeopathy Courses. Considering the poor economic status of these 61 students, Government sanctioned Rs.1.21 crore to enable payment of all type of essential fees and hostel fees for the students who have got admission under the 7.5% preferential allotment of seats in AYUSH Courses.

8.14 COVID-19:

- A Special Scheme “AROKKIYAM” comprising the Indian Systems of Medicine and Homoeopathy was implemented to control / prevent the Covid-19 pandemic.
- Government Ayurveda Medical College Hospital, Kottar, Nagarcoil with bed strength of 100 beds providing special treatment for paralysis, skin diseases, arthritis through steam bath, Oil massage and pancha Karma therapy.
- Government Siddha Medical College and Hospital Palayamkottai with bed strength of 350 beds conducting special clinic for diabetics, Hypertension, Urolithiasis and infertility.

- The Government of Tamil Nadu has established the International Institute of Yoga & Naturopathy Medical Sciences in Chengalpattu District.
- The hospital attached to Government Yoga & Naturopathy Medical College, Chennai is running full 100 bed capacity and it specializes in giving treatment for weight reduction by means of natural foods, natural herbal treatment, fasting, mud bath therapy, Steam bath therapy, plantain leaf bath.
- 1,082 palm manuscripts of Siddha and Ayurveda were digitized at Directorate of Indian Medicine
- Rare Siddha books of the Dr. Ambedkar Central Library of Directorate of Indian Medicine is being digitized in collaboration with Anna Centenary Library

8.15 State AYUSH Society: “State AYUSH Society – Tamil Nadu” is formed by the Government to implement the schemes sanctioned to the State under the National AYUSH Mission. The schemes are implemented by the Society, out of the funds received from the Government based on the sharing pattern in the ratio of 60:40. For the year

2021-22 a sum of Rs.32.96 crore has been earmarked as resource pool for State Annual Action Plan (SAAP).

8.16 Tamil Nadu State Medicinal Plants Board

Tamil Nadu State Medicinal Plants Board was formed vide G.O.(Ms).No.104, Health and Family Welfare Department, Dated 06.06.2002 & TNSMPB was further registered under Tamil Nadu Societies Registration Act, 1975, Tamil Nadu Act, 27 of 1975 vide Registration.No.286/2009 Dated 26.10.2009. The board is governed by the General body with 11 Members, and an Executive Committee of 7 members both under the Chairmanship of Principal Secretary to Government, Health and Family welfare Department, Government of Tamil Nadu. As per the By-law the main aims and objectives is to avail the financial benefits by the stakeholders of Tamil Nadu in the Medicinal Plants Sector like Farmers, Growers, Collectors, Traders, Exporters, Industrialist, from the National Medicinal Plants Board, Government of India through the State Medicinal Plants Board by submitting suitable project proposals.

Chapter - 9

FOOD SAFETY AND DRUG ADMINISTRATION

FOOD SAFETY

9.1 Government of India have enacted the Food Safety and Standards Act, 2006 by repealing the PFA Act, 1954 and other seven related Food Laws to regulate, manufacturers, storage, distribution, sale and import of food products. This Act is being implemented in the entire country with effect from 05.08.2011. Tamil Nadu Food Safety and Drug Administration Department was formed with effect from 22.12.2011 to implement the Act.

9.2 A separate Food Safety Department, headed by the Commissioner of Food Safety and assisted by the Director and Additional Commissioner of Food Safety, other supportive Staff at State Level, 32 Designated Officers at the District level and 394 Food Safety Officers at the field level are available to implement the new Act.

9.3 Tamil Nadu Food Safety Appellate Tribunal was formed and started functioning from February, 2019. Presiding Officer, Registrar and Assistant Public Prosecutor Grade-I are posted to this Tribunal. 136 appeal cases have been filed in this tribunal so far and out of which, 23 appeal cases have been filed during the year 2020-21.

9.4 Licensing and Registration Certificate:

Online Licensing / Registration facility is now implemented in all the districts. As on 31st March 2021, 85,564 Licenses and 3,54,867 Registration Certificate have been issued online by e-payment of fee, to the Food Business Operators. Issuing the License / Registration Certificate to the Food Business Operators as per the Food Safety and Standard Act, 2006 is the basic responsibility of this department.

9.5 Enforcement Activities: Periodical inspections are being made in all the manufacturing, storage and selling places by Designated Officers / Food Safety Officers. Six Food Laboratories established in Chennai, Thanjavur, Madurai, Salem, Coimbatore and Palayamkottai are notified under the Act for testing samples. During 2020-21 10,766 act samples analysed and taken legal actions as follows:

- 1,463 Civil cases filed with Adjudication Officers (District Revenue Officers) against the food business operators and judgment given for 1,368 cases. Penalty amount imposed is Rs.1,62,73,500.
- 557 criminal cases filed against the food business operators in JM Court and

judgment given for 235 cases. Penalty amount imposed is Rs.47,69,500.

9.6 Prohibition of Food Products with Tobacco and Nicotine: Tamil Nadu Government banned the manufacture, transport, storage, distribution and sale of gutkha, panmasala, chewing tobacco and any other food product containing tobacco or nicotine as ingredients by whatever name or description, in Tamil Nadu and necessary Gazette Notification has been issued with effect from 23.05.2013. The ban order is extended every year and the latest notification extending the ban for a further period of one year was issued on 23.05.2021. During 2020-21, 33481 kg with a value of Rs.3.25 crore banned food products containing tobacco and nicotine were seized and destroyed.

9.7 Complaint Redressal: A consumer complaint redressal system has been setup to receive complaints on unsafe, substandard and mislabelled food products using a separate e-mail address unnavupukar@gmail.com and a whatsapp mobile number 9444042322. From April 2020 to March 2021, 2390 Complaints have been received from public and action taken through the food safety officials within 24 to 48 hours.

9.8 Compounding Offences: Under the Food Safety and Standards Act, Designated Officers have been empowered from 1st December 2019 to impose penalty of not more than Rs.25,000 to compound offence committed by the Food Business Operators whose turnover is less than Rs.12 lakh per annum and eligible for Registration Certificate (RC) under the Act. During 2020-21, Rs.50.15 lakh have been imposed as penalty for 1,499 defaulters.

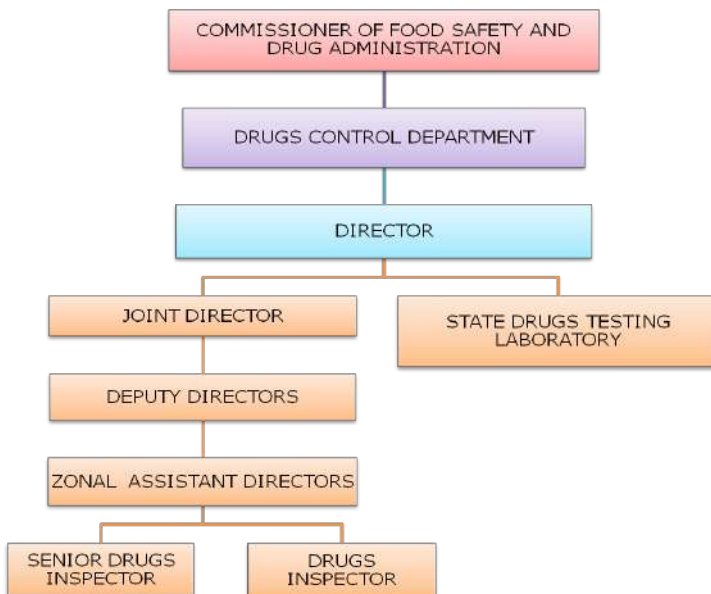
9.9 Blissful Hygienic Offering to God: To encourage Places of Worship (PoW) to adopt and maintain food safety and hygiene while preparing Prasad and to ensure that safe and wholesome Prasad is received by devotees, the Food Safety Department is promoting the project – BHOG to reach the objective of safe food for all in Tamil Nadu and roll out BHOG project to all Places of Worship (PoW) across Tamil Nadu. As on 31st March 2021, six temples have been issued BHOG certification after the preaudit, training and final audit process.

9.10 Hygiene Rating: Till 31st March 2021, 139 FBOs obtained “Hygiene Rating” Certifications under the FSSAI guidelines and others are under process.

DRUGS CONTROL ADMINISTRATION

9.11 The Drug Control Department has been functioning as a separate a department from 13.11.1981 and Director of Drug Control is the head of the Drugs Control Administration and the Department is functioning under the administrative control of “Commissioner of Food Safety and Drugs Administration”.

Organization Structure



9.12 The Drugs Control Administration enforces the following Central Acts for regulating the manufacture, distribution and sale of Drugs and Cosmetics:

- Drugs & Cosmetics Act, 1940 Drugs Rules, 1945, Medical Devices Rules, 2017 and New Drugs and Clinical trial Rules, 2019 & Cosmetics Rules, 2020
- Drugs & Magic Remedies (Objectionable Advertisements) Act, 1954 and Rules, 1955
- Drugs Price Control Order, 2013

The Officers of this Department are also empowered to act under Narcotic Drugs and Psychotropic Substances Act, 1985.

9.13 The Director of Drugs Control is the controlling authority and Licencing Authority for grant of licences for manufacturing of allopathic drugs, Medical devices (for Class A & B), Homeopathic medicines & cosmetics. The Director of Drug Control is the Licencing Authority for the Blood Centers (Blood Banks) and also for certain Categories of Allopathic Drugs along with the Central License Approving Authority of the Government of India.

9.14 The Drugs Control Administration monitors

- The quality, safety, efficacy and availability of drugs at right prices.
- The quality and safety of Cosmetics.
- The misleading advertisements with respect to Drugs and Magic remedies.
- Collection and supply of safe blood and blood components.

9.15 The details of manpower available for Enforcement and Testing Laboratory is given below:-

a) ENFORCEMENT

SL. NO.	NAME OF THE POST	NO. OF POSTS
1	Director of Drugs Control	1
2	Joint Director of Drugs Control	2
3	Deputy Director of Drugs Control	2
4	Assistant Director of Drugs Control	25
5	Assistant Director of Drugs Control (Administration)	1
6	Senior Drugs Inspector	15
7	Drugs Inspector	146
8	Legal Adviser	1

9	Assistant Accounts Officer	1
10	Ministerial Service	123
11	Office Assistant	79
12	Driver	4
13	Telephone Operator	1
	TOTAL	401

b) DRUGS TESTING LABORATORY

SL. NO.	NAME OF THE POST	NO. OF POSTS
1	Government Analyst	1
2	Deputy Government Analyst	2
3	Senior Analyst	14
4	Junior Analyst	38
5	Junior Administrative Officer	1
6	Technician Grade – I	6
7	Technician Grade – II	4
8	Electrician Grade – I	1
9	Plumber	1
10	Laboratory Attendant	7
11	Animal Attendant	1
12	Ministerial Service	10
13	Office Assistant	5
14	Sweeper	1
15	Sweeper-cum-Watchman	1
	TOTAL	93

9.16 Drug Testing Laboratory: The Drugs Inspectors draw samples of Drugs & Cosmetics from various Retail, Wholesale outlets, Manufactories and Hospitals of Private and Government Sector, for testing or analysis to ascertain its quality, purity and safety, for which a well-equipped statutory Drugs Testing Laboratory is attached to this Department. The analysis of parenteral drugs are undertaken by the lab situated at King's Institute of Preventive Medicine, Guindy, Chennai.

9.17 Functioning of Legal cum Intelligence Wing and Mobile Squad: A Legal cum Intelligence Wing and a Mobile Squad is functioning in the Directorate to attend the complaints relating to spurious drugs / cosmetics and investigates specific complaints in Chennai and in Southern Region respectively. It processes legal matters and undertakes special investigations including inter-state investigations in association with the Drugs Control Department of other States.

9.18 Strengthening of Drugs Regulatory System: A Scheme for Strengthening of State Drugs Regulatory System has been approved under Centrally Sponsored Scheme with the funding ratio of 60:40 between Central and State

Share, at the cost of Rs.43.60 crore. Further the Government of India has released Rs.12 crore during the financial year 2018-19 and Rs.14.16 crore for financial year 2019-20. The Government of Tamil Nadu has accorded Administrative sanction for Rs.43.60 crore and financial sanction for Rs.20 crore on 25.11.2019 and Rs.23.60 crore on 01.02.2021 for establishing a new world class Drugs Testing Laboratory at Madurai and Strengthening the State Drugs Regulatory System. Construction work is under progress. When the Drugs Testing Laboratory at Madurai, comes functional, number of drugs samples testing will be increased.

9.19 Number of Licensed Premises as on 31.03.2021

Sales Licenses		Manufacturing Licenses			Blood Banks	Blood Storage Centers
Retail Licences	Wholesale Licences	Allopathic Drug	Homeopathic Drug	Cosmetics		
50,128	17,840	677	9	201	314	549

9.20 Number of Inspections

	No. of Inspections
Details	2020 - 2021
Sales Premises	58,590
Manufacturing Premises	1,411

Hospitals and Medical Stores	1,766
Blood Bank	591

9.21 Details of Samples drawn, tested and reported as Not of Standard Quality Drugs

	2020 - 2021
Total No. of Samples drawn	8,604
No. of Samples Tested	8,830
No. of Samples declared as Not of Standard Quality	270 Our State – 91 Other State -179

9.22 No. of Sales Licences Suspended

	2020 - 2021
Total No. of Retail Licence suspended	21
Total No. of Wholesale Licence suspended	07
Total No. of Licence suspended	28

9.23 Prosecution for certain contraventions under Drugs and Cosmetics Act, 1940, Drugs Price Control Order 2013 and Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954

Sl. No	Details	2020 -2021
1	For the manufacture of Spurious drugs	Our state –3 Other state – 3 Total – 6

2	For the manufacture of Not of Standard quality drugs	Our state – 30 Other state – 64 Total – 94
3	For the sale of drugs without supervision of Pharmacist	132
4	For the sale of drugs without prescription of Registered Medical Practitioner	252
5	For having stocked for sale of date expired drugs	3
6.	Contraventions under Drugs and Cosmetics Act, 1940 and Rules, 1945	398
7	Contraventions under DMR (OA Act) 1954	1
8	No. of Sanctions issued under Drugs Price Control Order, 2013	1

Chapter - 10

TAMIL NADU STATE HEALTH TRANSPORT DEPARTMENT

10.1 Tamil Nadu State Health Transport Department is responsible for the upkeep and maintenance of all the vehicles attached to various Directorates of Health and Family Welfare Department.

10.2 Origin of the Department: Six Mobile maintenance units were initially established by the Government in the year 1959 exclusively for the maintenance of Health Department vehicles. Through this step, the Government around 60 years back, first mooted and implemented the idea of having a separate structure for the maintenance of Health Department vehicles. The Government in the year 1971 based on an all India pattern, established State Health Transport Organization which later in the year 1981 was made as a separate Directorate.

10.3 Main functions and objectives:

- i. To maintain all the fleet of vehicles in an efficient as well as in an economical manner.
- ii. To strictly adhere to Time limits and Deadlines for all the services offered.

- iii. To provide a robust Grievance Redressal Programme to all the vehicle users.
- iv. To identify, condemn and promptly dispose all aged and wornout vehicles by e-auction.
- v. To constantly improve the services offered through a comprehensive Feedback Programme.
- vi. To regularly monitor and review the performance of each Departmental Workshop using a Computerized Data Base Programme.

10.4 Mobile Workshops: An unique feature of this Department is the functioning of 29 Mobile Workshops which are positioned all over the state. These Workshops are provided with vehicles to render periodical service once in two months and execute minor repairs at the door steps of Vehicle using Officer. Timely replacement of lubricants and wornout items by these Mobile Workshops ensures hassle free operation of vehicles.

10.5 Repository of vehicle related Data: By using a vehicle Management Data Base Programme developed with in-house resources, all the details relating to Workshop activities and vehicle operation are being computerized for easy access

to data and to periodically evaluate the performance of each departmental Workshop.

10.6 Feedback Programme: To get constructive feedback from the vehicle users with regard to the quality of services offered, the concerned drivers of each and every vehicle which have undergone repairs in the Departmental Workshops throughout the state are contacted over phone from the Head Office within a week from the date of delivery of vehicle. This approach of reaching out to the drivers, apart from instilling a sense of ownership among the drivers and creating a culture of recognition which in turn would inspire them to give their best, also paves way for continuous improvement in the services offered by the departmental workshops.

10.7 Common Pool: To minimise the number of unutilised vehicles already in the fleet of Health and Family Welfare Department, it is proposed to maintain a 'Common Pool for Health and Family Welfare Department Vehicles' in a transparent and systematic manner by following a centralised mechanism. Maintaining a Common Pool of vehicles exclusively for Health and Family Welfare Department vehicles would act as an interface for different Directorates resulting in better fleet

utilization and in execution of Health Care programmes.

10.8 Grievance Redressal Programme: A single window 24/7 Grievance Redressal Programme named HICORP (Health Department vehicles Information and Complaint Redressal Programme) is being implemented by this Department for the benefit of vehicle owning officers and drivers in maintaining and operating the vehicles. The concerned stakeholders could get all their vehicle related issues resolved by contacting the programme's helpline No. 94896 21111. This programme is a significant initiative taken by the Department for the maximum utilization of vehicles.

10.9 Ensuring uninterrupted mobility of vehicles for successful implementation of Health Care Programme: This Department plays an imperative role in the successful implementation of various welfare programmes like Hospital on Wheels, Pulse Polio Immunization, Vector Borne Disease Control Programme etc. by undertaking preventive maintenance works and by constant evaluation of the condition of all vehicles utilized for the said Programmes. During implementation of these programmes and in the execution of relief measures during pandemics like Covid-19, all the

Workshops under this Department functioned on all days including during lockdown period for immediate replacement of worn out tyres, defective batteries and deteriorated lubricants and to attend to emergency repairs. Necessary squads and mini teams are also formed for on-spot inspection of vehicles and for immediate redressal of the logistic problems faced by the Medical Officers.

Chapter – 11
HUMAN RESOURCES AND
MEDICAL SERVICES RECRUITMENT BOARD

11.1. Medical Services Recruitment Board (MRB) was formed in January, 2012 with an aim to carry out all direct recruitments in order to fill up vacancies in a speedy manner to various categories of posts including Medical, para medical and Non-Medical Staff in the Health and Family Welfare Department to ensure timely provision of health care services to the public. The Medical Services Recruitment Board commenced functioning with effect from 06.02.2012. The Health and Family Welfare Department plays a guardian role in maintaining the good health of the people of the State through ten Directorates functioning under its control. More than one lakh Medical and Para Medical Staff exist in these Directorates in more than 200 categories of posts in Government Medical Institutions.

11.2 Methods of Recruitment: The Medical Services Recruitment Board conducts its selection through a fair procedure by way of open advertisement in the newspapers and receives applications online.

11.2.1 Competitive Examination: In its endeavour to provide qualified personnel, Medical Services Recruitment Board conducts competitive examination for direct recruitment to the posts of Doctors and Nurses and select candidates purely based on the marks obtained in the competitive examination in the order of merit and communal roster.

11.2.2 Weightage Method: Candidates for Para Medical posts are recruited by adopting weightage method and the selection is purely based on the marks obtained in their academic and technical qualification following communal rotation and rule of reservation in force in the order of merit. The Medical Services Recruitment Board does not conduct any oral interview for recruitment of any categories and thereby ensuring the transparent selection procedure.

11.2.3. Special Gateway for Highly Specialised Doctors: MRB also recruits Assistant Surgeon (Speciality) for Post Graduate Doctors through walk-in selection process following the communal rotation and rule of reservation in force, in order to garner the services of various highly skilled doctors to provide better treatment for the public.

11.3 Recruitment Details since Inception: The Medical Services Recruitment Board has so far recruited the candidates for the following categories of posts till 20.05.2021 from the date of inception.

S.No.	Name of the post	No. of Candidates selected
1	Assistant Surgeon (General)	10,055
2	Assistant Surgeon (Speciality)	2,042
3	Personnel for Tamil Nadu Government Multi Super Speciality Hospital	72
4	Assistant Surgeon (Dental) (General)	59
5	Assistant Surgeon (Dental) (Speciality)	67
6	Assistant Surgeon (General) (Special Qualifying Examination)	1,151
7	Assistant Medical officer (Siddha)	101
8	Assistant Medical officer (Homoeopathy)	4
9	Assistant Medical officer (Ayurveda)	1

10	Assistant Medical Officer / Lecturer Grade II (Yoga & Naturopathy)	73
11	Medical Physicist	34
12	Physiotherapist Grade-II	126
13	Nurses	12,752
14	Nurses (SNCU)	508
15	Senior Lecturer in Optometry	2
16	Pharmacist	974
17	Pharmacist (Siddha)	148
18	Pharmacist (Ayurveda)	38
19	Pharmacist (Homoeopathy)	23
20	Pharmacist (Unani)	20
21	Laboratory Technician – Grade II	528
22	Laboratory Technician – Grade III	2,398
23	Radiographer	287
24	Radiotherapy Technician	25
25	Dental Hygienist	1
26	Village Health Nurse	2,557
27	ECG Technician	37

28	Therapeutic Assistant	114
29	Prosthetic craftsman	62
30	EEG / EMG Technician	12
31	Audiometrician	16
32	Occupational Therapist	18
33	Dark Room Assistant	227
34	Plaster Technician Grade II	87
35	Heart Lung Hypothermia Machine Technician	7
36	Anaesthesia Technician	77
37	Fitter Grade II	128
TOTAL		34,831

11.4 Tackling the COVID-19 Crisis: Declaration of lock down in the State on account of pandemic Covid-19 and lack of transport, the Medical Services Recruitment Board has taken special efforts in timely sponsoring of required Medical and paramedical categories. The Medical Services Recruitment Board sponsored the required number of candidates for treating the Covid-19 positive cases from the eligible remaining candidates

available with the Board from earlier examination / notification purely in the order of merit and communal roster to tide over the prevailing crisis in State.

11.5 Yearwise Recruitment Details

Sl. No	Year	Details of candidates Recruited
1	2012-2013	107
2	2013-2014	4167
3	2014-2015	2830
4	2015-2016	7657
5	2016-2017	4974
6	2017-2018	3822
7	2018-2019	3220
8	2019-2020	6347 + 2854 *
9	2020-2021	1707 + 14797 *
Total		34831 + 17651 *

*Including the temporary recruitment for Covid-19

11.6 Recruitment Process for Current Year 2021-2022: During this year it is proposed to recruit, Assistant Surgeon (General), Assistant Medical Officer (Siddha, Ayurveda, Homoeopathy, Unani and Yoga and Naturopathy), Therapeutic Assistant, Skilled Assistant (Fitter Grade-II), Pharmacist (after clearance from the Hon'ble High Court), Physician Assistant, Dialysis Technician

Grade-II, Multipurpose Health Worker (Male), Food Safety Officer, Junior Analyst, Lab Technician Grade-II, Radiographer, etc. During 2021-2022, till 13.08.2021 candidates for the following posts have been selected and list furnished to the concerned Head of Department's to issue orders of appointment.

01.	Dialysis Technician	160
02.	Physician Assistant	12
03.	Therapeutic Assistant	48
04.	Skilled Assistant Grade-II (Fitter Grade-II)	09
	TOTAL	229

11.7 The aim of the Medical Services Board is to fill up all the vacancies in Government Medical Institutions in speedy manner with utmost transparency in recruitment for serving the public. The entire selection process is done in a transparent manner, with online filling up of application forms and displaying marks scored / attained by the candidates in the website of Medical Services Recruitment Board. Also extra care is taken by the Medical Services Recruitment Board to provide adequate information to candidates with rural background about the status of their application and the selection process.

Chapter - 12

COVID-19 MANAGEMENT

12.1 World has been challenged by the unprecedented COVID-19 pandemic. On 15.03.2020, the Government declared that there is a threat of outbreak of COVID-19 in the State of Tamil Nadu under the Tamil Nadu Public Health Act, 1939. The Government notified the Tamil Nadu COVID-19 Regulations, 2020 under the Epidemic Diseases Act, 1897 on 15.03.2020 to prevent the outbreak of COVID-19. As seen in all parts of the world, despite containment activities being taken up, there was considerable increase in the number of Covid-19 positive cases across the State too and it witnessed an initial peak in the months of July and August 2020. The cases after came down substantially by February 2021 started rising again through the months of March, April and May 2021. During this period, the State reached a peak much later than the other States and the peak also was lower compared to the other states.

12.2 To control the increasing number of cases, the Government in May 2021 took multi pronged steps include rapidly augmenting the oxygen bed

facilities, ICU's, setting up temporary bed facilities and additional COVID care centres, monitoring and enforcing COVID appropriate behaviour, setting up of State and District level war room, putting in place additional human resources to quickly bring the spike under control. In addition to the basic five pronged strategy of Testing, Tracing, Treatment, Vaccination and Follow up of COVID appropriate Behaviour, the following activities were undertaken to achieve the systematic reduction:

- A series of regular meetings with Expert Committee consisting of Medical Experts, Epidemiologists, Private Sector Experts and Policy makers to record their views and recommendations on the management of the waves.
- Implementation of a strict lockdown from May 11th which is being relaxed now in a calibrated manner taking into account the positivity rate in the districts and the availability of oxygen and ICU Beds.
- Ramping up the infrastructure and training of doctors and nurses on COVID-19 treatment protocols and management for Children.
- Rapid increase of oxygen beds and setting up of a control room to monitor bed allocation and oxygen availability.

- Setting up of triage centres to smoothly categorize and shift the patients to various facilities depending on symptoms.
- Instructions of adherence for Strict Treatment Protocol.
- Dedicated work of the Doctors, Nurses, other Paramedical staff, Police, Conservancy staff, combined effort of all related Government departments.
- Effective contact tracing, strict containment management and clear-cut strategies from the beginning by focusing on aggressive testing, quarantine, effective patient management.
- Aggressive, targeted RT-PCR testing, covering more than 4.20 crore samples tested as on 29.08.2021.
- Tamil Nadu is the only State to do exclusive RT-PCR tests in all the districts
- Intensive Door to Door survey for identification of persons with influenza like illness all over the State
- Conduct of approximately 3,600 fever camps daily including Field Fever Camps, covering more than 7.30 crore people as on 28.08.2021.

- Extensive IEC activities for COVID Appropriate Behaviour through Campaign in the State
- Promotion of Indian systems of Medicine in COVID management.
- Continuous review and visits to all the districts.
- Establishment of Interim COVID Care Centres
- Induction of car ambulances to augment facilities
- Recruitment of additional health personnel to augment the services
- Provision of oxygen Concentrators.

12.3 As already mentioned, when this Government took over the administration on 07.05.2021, the total positive cases in a day was 26,465. Subsequently the 2nd wave peaked up to 36,184 on 20th May, 2021, The Government has given thrust to COVID management as its first priority and imposed lockdown, increased the health infrastructure, conducted focused reviews, followed by field inspection which helped in reducing the case load. Oxygen management was improved in co-ordination with Government of India.

12.4 Infrastructure and personnel

- Public are given upto date information on COVID-19 through media bulletin, Government Orders etc daily in www.stopcorona.tn.gov.in
- As on 07.05.2021, the COVID-19 bed capacity was 99,051 and during the peak it was ramped upto 1,78,669. Total beds were increased by 79,618 which includes 50,075 Non-Oxygen beds, 26,126 Oxygen beds and 3,417 ICU beds. The Government of Tamil Nadu established special website viz., <https://tncovidbeds.tnega.org/> in which the availability of beds were regularly updated during the surge.
- 17,940 oxygen Concentrators were additionally added.
- Additional human resources were strategically sanctioned to augment the services.

12.5 Procurement for COVID-19: TNMSC is entrusted with the responsibility to procure drugs, medical equipment and consumables for tackling COVID-19 on war footing basis under Section 16 (a) of the Tamil Nadu Transparency in Tenders

Act, 1998 the following activities were done by TNMSC:

- i. The Corporation has procured 79 RT-PCR machines, 105 automated RNA extraction machines and other lab related accessories such as deep freezers, lab refrigerators, bio-safety cabinets and strengthened the Lab infrastructure in the State in a record time of 2 to 3 months. Minimum one dedicated Government lab for RT-PCR testing is ensured in each district with a testing capacity of 1,88,500 test / day in 69 Government Labs and it is now being ramped upto 2,03,500 tests. Overall current testing capacity including private labs has reached 3.68lakh per day.
- ii. Further Ventilators, High flow nasal oxygen therapy machines, Bi-PAP & C-PAP machines, Multipara monitors, Pulse oxymeters, Thermal scanners, Mobile X ray machines with Retrofitted Computed Radiography, ICU and Steel cots were procured and installed across the State to treat COVID patients.
- iii. As a screening tool, dedicated CT machines in each centres were earmarked and exclusively deployed

further by providing additional CT scanners to screen the COVID patients.

- iv. In addition to the essential Drugs, Speciality drugs such as Inj.Remdesivir, Inj.Tocilizumab, Inj.Liposomal Amphotericin B and kits like disposable triple layer masks, N95 masks, PPE Kits were also procured and supplied to hospitals as per the demand.
- v. In addition, to meet the increased demand for medical oxygen, TNMSC also procured and installed additional Liquid Medical Oxygen tanks in Government hospitals and procured Liquid Medical oxygen from other States.

12.6 64 Siddha Covid Care Centers, 3 Ayurveda Covid Care Centres, 10 Yoga & Naturopathy Covid Care Centres, 1 Unani Covid Care Centre and 1 Homoeopathy Covid Care Centre were functional during second wave. An amount of Rs.12.50 crore was sanctioned from State Disaster Relief Fund and utilized fully for Covid treatment.

12.7 Vaccination is being given a full thrust on a drive mode to mobilize the General Public to come forward for vaccination. Government of India as on 29.08.2021 has supplied 3.05 crore doses of COVID vaccine to Tamil Nadu, while 21.90 Lakh

doses have been received through the Private sector. On 07.05.2021, 63,28,407 doses were administered and as on 29.08.2021 it has risen to 2.94 crore doses through the State Government. In addition 21.03 lakh doses were administered through the Private Hospitals. The State has been vaccinating more than 3 lakh persons every day of the week and is capable of increasing it to 7 lakh a day subject to receipt of regular supplies of vaccines. With the vaccine drive, and continued vigil, it is hoped that the impact of Covid-19 will come down further in the coming days. In order to meet the increased demand, State Government has taken up the issue with the Government of India to increase the allotment of vaccines based on population. The Hon'ble Chief Minister launched free vaccination in Private Hospitals through CSR initiative on 28.07.2021.

12.8 Mucormycosis Management

- As on 28.08.2021, 4,387 cases of mucormycosis have been reported in the State. To deal with the problem, Task Force Committee with medical experts has been constituted and detailed treatment protocol has been issued.

- 1.48 lakh vials of Liposomal Amphotericin B Inj-50mg, 2.5 lakh Posaconazole Tab 100mg and 7,000 vials of Posaconazole Inj 300mg were procured and adequate stock is maintained.

12.9 Strategies adopted

- Hon'ble Chief Minister held discussions with Medical Experts, District Collectors, Representatives of Political Parties, Non-Government Organisations, Industrial representatives, Media representatives.
- Hon'ble Chief Minister visited districts and also interacted with COVID-19 patients following due protocol.
- A Task Force Committee on COVID-19 management under Dr.R.Poornalingam, IAS (Retired) has been constituted.
- Unified Command Centre / War-rooms were established at Chennai and District Headquarters, to co-ordinate bed / oxygen availability through State / District Call Centres.
- Symptomatic surveillance and symptomatic treatment protocol have been put in place.

- Chief Minister's Comprehensive Health Insurance Scheme rates have been revised to enable corona virus affected patients to get free treatment in private hospitals.
- Oxygen support to hospitals was managed with a team of Special Officers to coordinate logistics from other States.
- Maximum retail price on commonly used essential articles such as masks, hand sanitizer, PPE kits have been fixed.

12.10 Corona warriors who unfortunately died during the pandemic are covered under Pradhan Mantri Garib Kalyan Yojana (PMGKY). In case, if they are ineligible under the PMGKY, the State Government releases Rs.25 lakh from Chief Minister Public Relief Fund apart from regular relief available to the Government staff.

12.11 Activities undertaken by the State for encountering a possible Covid-19 Third Wave

- An Expert Committee Meeting for 3rd Wave Planning was planned much earlier than many other States and was convened on 03.06.2021 with several leading public health experts in the country.

- A special Task force has been constituted with eminent public health experts. The members of this Task Force meet every week and closely monitor the current situation in the State.
- A special Task Force under the State Child Health Nodal officer was also convened and an Action Plan was laid down for managing paediatric cases during the 3rd Wave.
- A detailed analysis was made by the COVID-19 State War Room explaining the patterns of the 3rd Wave in other countries and strategies taken to contain and mitigate the spread of infection. Based on assumptions made, specific requirements for O₂ and ICU, Ventilator and other Respiratory devices Requirement, LMO production, Supply chain, O₂ cylinder availability, O₂ cylinder filling, O₂ generators PSA / ASU, Human Resources and drugs were calculated for various possible scenarios.
- The State is also getting ready with District-wise preparedness plans and amplifying its readiness by stepping up facility-based testing, sero surveillance and genomic sequencing.

12.12 With the above proactive and aggressive approach, Tamil Nadu was able to bring down the

daily case load from a high of about 36,200 cases in Mid May to less than 1,600 and is making efforts to bring it down further. Active cases also have come down from the level of 3.13 lakh cases in May to below 18,000 now.

The state currently has,

- Recovery rate of about **98%**
- Reduced death rate at **1.34%**
- Daily positivity rate has reduced to about **1.0%** with day-to-day and inter and intra district variations.

12.13 Present thrust is on vaccination and localised containment and active surveillance followed by test, trace, treat, vaccinate and encourage and enforce follow-up of COVID-19 appropriate behaviour which has resulted in gradual reduction of cases throughout the State and COVID-19 is under control and is being closely monitored.

Chapter - 13
OXYGEN MANAGEMENT DURING THE
COVID-19 SECOND WAVE

13.1 One of the most important challenges successfully managed during the second wave by the Government was ensuring effective and timely provision of Oxygen during the peak demand. During the peak of the second wave in Tamil Nadu, the State had seen a peak of 3.13 lakh active cases. State Government judiciously managed the procurement/supply of the oxygen by creating a war room with a dedicated team of officials and closely monitored the allocation and distribution of LMO. Liquid oxygen was sourced from Kalinga Nagar, Rourkela, Jamshedpur and Dolvi among other places in addition to the in-house production. The following table gives the details of the oxygen plants and Air Separation Unit (ASU) production as on 30.08.2021.

Oxygen Plants and ASU production as on 30.08.2021

Sl. No.	Manufacturer	Current Avg. Production capacity / Day in MT	Maximum Storage Capacity in MT	Allocation to TN State MT
1	INOX / SPDR	160	1,000	140

2	INOX / Pondy	44	315	44
3	Sigilsol	48	166	40
4	NOL IRT	38	100	38
5	NOL Pondy	30	175	30
6	Praxair / Linde	85	420	60
7	JSW, Salem	17	-	15
8	IPRC	12	-	0
9	MSME (ASU)	52	-	52
10	Sterlite (discontinued with effect from 31.07.2021)	45	-	25
Sub Total (A)		531	2,176	444
Interstate Allocation				
11	Linde, Kalinga Nagar	-	-	50
12	SAIL, Rourkela	-	-	50
13	Linde, Rourkela	-	-	46
14	JSW, Dolvi	-	-	60
Sub Total (B)				206
Grand Total (A+B)				650

13.2 Currently Tamil Nadu has a storage capacity of around 1794.75 MT of Liquid Medical Oxygen (LMO). During the second wave, daily allotment of LMO by GOI to Tamil Nadu was 220 MT till 07 May, 2021. Due to the efforts of the Government of Tamil Nadu under the National plan, the allotment capacity was increased to 419 MT on 08th May, 2021, 519 MT on 11th May, 2021 and 650 MT on 23rd May, 2021. Details of the LMO storage capacity directorate wise and in private sector and

the cylinders (D type & B type) are furnished in the table given below:-

O₂ Storage details (LMO tanks & Cylinders)

SL. No.	Government and Private Hospitals	Present LMO Storage Capacity in MT	LMO Augmentation in Progress (MT)	Total Capacity after augmentation (MT)
1	DME (LMO)	855.76	27.36	883.12
2	DM&RHS (LMO)	53.91	47.88	101.79
3	TNMSC (LMO)	-	142.50	142.50
4	Private (LMO)	521.20	-	521.20
5	8,958 Nos. D Cylinders (Government Hospitals)	81.43	-	81.43
6	16,702 Nos. B Cylinders (Government Hospitals)	64.71	-	64.71
Total				1,794.75

Total number of LMO tanks available in Government Institutions is 111, out of which 88 is in DME institutions and 23 in DM&RHS institutions.

13.3 During the challenging period, the gaseous oxygen available in the industry was converted into medical oxygen and supplied to hospitals in the form of gas cylinders. The State also augmented

the medical oxygen availability by procuring / installing ISO containers, PSA generators, Oxygen Concentrators, as seen from the following table:

I. Tankers deployed for Interstate transport

Sl. No.	Supplier	No. of Tankers	Total Capacity in MT
1	Inox Air Products	5	78.56
2	KR Taiyo Nippon (kongunadu)	1	14.98
3	Sri Venkateswara	1	16.28
4	Maser Gas Agency	1	13.5
5	SICGILSOL	2	34.06
6	Covai Air	1	13.3
7	Sri Pavithra Air	1	8.14
8	Erode Air	1	12.98
9	Rajee Gazes	1	8.24
	Total	14	200.04

II.ISO Containers Deployed for Interstate Transport

SI. No.	Containers Owned by	Count of Containers	Capacity of LMO Containers in MT	Total containers capacity in MT
1	TNMSC	12	20	240
2	INOX	8	20	160
3	IOCL	2	20	40
4	LINDE	2	20	40
	Total	24	80	480

III. Pressure Swing Adsorption Oxygen Plant (PSA Plants)

SI. No.	Hospitals	PM CARES		CSR		Others		Total No.	Total Capacity in LPM	Total Equivalent LMO in MT
		No	Capacity (LPM)	No	Capacity (LPM)	No	Capacity (LPM)			
1	DME	35	40,000	50	22,439	-	-	85	62,439	116.13
2	DMS	35	25,900	27	9,227	-	-	62	35,127	65.33
3	Others	-	-	-	-	14	5,500	14	5,500	10.28
4	Private Hospitals	-	-	-	-	61	23,752	61	23,752	44.18
	Total	70	65,900	77	31,666	75	29,252	222	1,26,818	235.92

IV. Oxygen Concentrators

SL. No.	Directorate	No. of O2 Concentrators
1	DME	9,745
2	DMS	5,433
3	DPH	2,762
	Total	17,940

13.4 The oxygen concentrators and the PSA generators are being installed and put into use. The requirement of oxygen is being daily monitored.

13.5 State and District War Rooms which were established provided the real time data regarding the storage level, and the immediate need of LMO by treating hospitals were analyzed and supply logistics were streamlined. Senior officials monitored the utilization of oxygen round the clock, conducted oxygen audits on a daily basis and ensured constant supply of oxygen to every institution. Institutional oxygen auditing was done, through which the usage of medical oxygen was rationalized and the wastage was reduced.

13.6 The details of the peak demand may be seen from the table given below:

COVID patients and oxygen consumption during COVID 2nd wave

No. of O2 patients on 17th May 2021	Max consumption in Government 21st May 2021	Max Oxygen consumption-17th May 2021 (PESO data) (Government and Private)
46,265	261.46 MT	560.77 MT

As may be seen, the State has taken all possible efforts to augment and ensure adequate oxygen supplies for the Health Sector.

Chapter - 14

NATIONAL HEALTH MISSION – TAMIL NADU

14.1 Tamil Nadu has been a leading State in achieving goals and targets in health indicators. The State has already achieved the Millennium Development Goals set by the United Nation. The State is determined to achieve all Sustainable Development Goals (SDG) well before the target 2030. The State have effectively utilized the program under the National Health Mission (NHM) to improve the outcomes in Health Sector. The National Health Mission (NHM) has been launched in the year 2005 as National Rural Health Mission initially with a view to bring about qualitative improvement in the health system and the health status of the people, especially those who live in the rural areas and extended to urban areas also in the year 2013 as National Urban Health Mission.

14.1.1 Objectives:

- Reduction of maternal mortality and infant mortality.
- Universal access to public health services / women's health, child health, drinking water, sanitation and hygiene, nutrition and universal immunization.

- Prevention and control of communicable and non-communicable diseases.
- Population stabilization-Gender and demographic factors.
- Access to integrated comprehensive primary health care.
- Revitalizing local health traditions and mainstreaming ISM.
- Promotion of healthy life styles

National Health Mission aims to achieve the goals by making the public health delivery system fully functional and accountable to the community, human resources management, community involvement, decentralization, rigorous monitoring & evaluation against standards, convergence of health and related programmes from village level upwards, innovations, flexible financing and other interventions for improving the health indicators.

14.2 Strategies to achieve the Goals of NHM

- Facilitates increased access and utilization of quality health services by all.
- Act as a tool for the effective partnership between the Central, State and Local self-governments.

- Setting up a platform for involving the Panchayat Raj institutions and community for the prevention, promotion and provision of Primary Health Care Services.
- Providing an opportunity for promoting equity and social justice.
- Establishing a mechanism to provide flexibility to the districts and the community to promote local initiatives.
- Developing a framework for promoting inter-sectoral convergence for promotive and preventive health care.

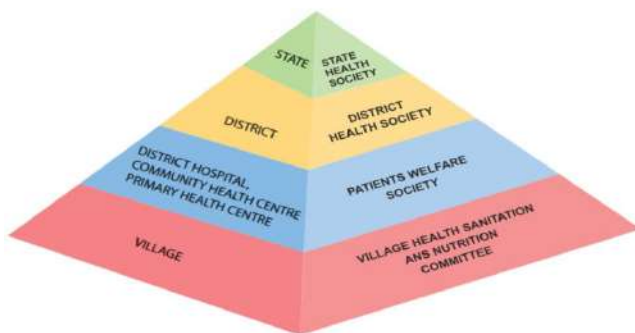
The support under NHM is intended only to supplement and support the existing health system of the State and not to substitute. In this regard, NHM is supporting Infrastructure development like civil works, procurement of equipment and drugs as well as Human resources deployment in the health facilities. The health system of the State is renowned for its success in providing quality public health services to its people and addressing challenges. Tamil Nadu is a forerunner in providing equitable, affordable and quality healthcare services to the people of the State.

The information about the various programmes implemented through National Health Mission – State Health Society – Tamil Nadu are detailed below.

14.3 NHM Implementation Framework

14.3.1 Programme Management Units: At State Level, the Mission operates under the State Health Society (SHS), headed by the Mission Director. It is further supported by State Programme Management Unit.

The State Health Society has the following Implementing Unit structures:



14.3.2 District Health Society: At District Level, the mission operates under the District Health Society (DHS) headed by District Collector as Chairman. Societies for various National Health Programmes are merged in DHS. It has a

Governing Body with District Collector as the Chairperson. DHS is responsible for planning and managing all NHM programmes in the district. DHS monitors the execution of NHM deliverables by the District Programme Management Unit and Block Programme Management Unit in each Block.

14.3.3 Patient Welfare Society (PWS): Patient Welfare Society is a simple but an effective management structure in all health facilities and PWS is a registered body.

The objectives of PWS:

- Enhancing people's participation.
- Mobilizing community resources for the health facility.
- Improving the quality of care provided in the institution.

14.3.4 Untied Funds: Health sector reforms under the National Health Mission (NHM) aims to increase functional, administrative and financial resources. There is an autonomy to the field units under which District Head Quarters Hospitals are given Rs.10 lakh / year, Sub District Hospital & Community Health Centres are given Rs.5 lakh / year, Primary Health Centres are given Rs.1.75 lakh per year and Health Sub Centres are given Rs.10,000 / year.

These Flexi pool funds are available with the Medical Officer of the respective facilities for taking up minor civil works, minor equipment repairs, purchase of consumables, and upkeep of facilities and improvement of patient amenities.

14.3.5 Village Health, Water, Sanitation and Nutrition Committee: Village Health, Water Sanitation and Nutrition Committees (VHWSNC) were constituted under National Health Mission (NHM) in rural areas to plan and implement activities at village level. The main purpose is community involvement at local level to promote decentralization in planning. This committee provides leadership and a platform for addressing issues related to health services, raising community awareness and promoting community involvement. VHWSNC is constituted with VHN, Local Panchayat President, Anganwadi worker, Local school teacher, Health Inspector and representative of SHGs for ensuring community participation, effective communication and for prevention of diseases. Every VHWSNC is entitled to an annual untied grant of Rs. 10,000. This fund is jointly operated by Panchayath President and VHN. There are about 15,015 VHSNCs in all Village and Town Panchayats in Tamil Nadu which proactively monitors the access of healthcare services.

14.4. Maternal Health

14.4.1 RMNCH+A Services: The Reproductive, Maternal, Newborn, Child Health and Adolescent Health Services are based on provision of comprehensive care through the five pillars of reproductive, maternal, neonatal, child and adolescent health. The main objective is to bring about a change in three critical health indicators i.e., reducing total fertility rate, infant mortality rate and maternal mortality ratio.

14.4.2 Janani Suraksha Yojana: Janani Suraksha Yojana (JSY) Scheme is implemented with the vision to increase institutional deliveries by providing cash assistance with antenatal care during the pregnancy period, institutional care during delivery and immediate post-partum period. The scheme provides financial assistance of Rs.700/- and Rs.600/- in rural and urban areas respectively to all mothers delivering in Government Health Institutions. During 2020-21, about 3,68,295 mothers have been benefitted by this scheme through Direct Benefit Transfer.

14.4.3 Janani Sishu Suraksha Karyakram (JSSK): The JSSK emphasis on entitlements and elimination of out of pocket expenses for both pregnant and sick new born (up to 30 days after

birth) in Government health institutions. The entitlements under JSSK includes free cashless delivery (including caesarean), free drugs, free diagnostics, free provision of blood, free diet, and free transport to and fro to a health facility. By this scheme, home delivery has almost come to zero level.

14.4.4 LaQshya: LaQshya is a Quality improvement initiative in Labour room & Maternity Operation Theatre, aiming at improving quality of care provided to mothers and newborn during intra-partum, immediate post-partum period and improving the patient satisfaction in Government Healthcare Facilities. LaQshya is being implemented in 188 facilities which includes 33 Medical College Hospitals (MCH), 20 Government District Head Quarters Hospitals (DHQ), 73 Sub-District Hospitals (SDH) and 62 Community Health Centres (CHC). So far 32 facilities i.e. 16 Medical College Hospitals, 10 District Head Quarters Hospitals and 6 Sub district hospitals in the State have been nationally certified.

14.4.5 Hiring of Specialists for MCH Care: Providing quality healthcare through a public health system would essentially require a strong and effective manpower in place. In the context of the

maternal and child care services, the most crucially required specialists would be Obstetricians, Gynecologists and Paediatricians. A flexible fund is provided as remuneration for hiring of specialist in a case-to-case basis to manage obstetric emergencies and family welfare services. The hired specialists have performed about 15,892 deliveries in the State during 2020-21.

14.4.6 Anaemia Mukh Bharat Scheme: An intensified Iron-plus Initiative aims to strengthen the existing mechanisms and foster newer strategies for tackling anaemia. It focuses on six target beneficiary groups (6-59 months, 5-9 years, 10-19 years, Women in Reproductive age group, Pregnant Women (Since 12 weeks, Lactating mother till 180 days) through six interventions and six institutional mechanisms to achieve the envisaged target under the Anemia Mukh Bharath. Iron and Folic acid supplementation to pregnant mothers for 180 days and lactating mothers are provided. Women of Reproductive Age (WRA) in the age group of 20 to 30 years under Phase 1 are being provided weekly supplements of IFA (Red) tablets, Folic Acid tablets and Biannual deworming tablets (albendazole) through Immunization Day or Village Health and Nutrition Day platforms wherever feasible. During 2020-21,

11,68,874 antenatal mothers and 4,97,059 post natal mothers have benefitted. 46,94,712 women in the reproductive age group have been provided with weekly supplementation of Iron and Folic Acid tablets. In addition to the above, Injection Iron sucrose is being provided to the mothers with moderate Anaemia (Hemoglobin 7.1 grams to 8.9 grams%). During 2021-21, 1,04,943 mothers have benefitted.

14.4.7 Gestational Diabetes Mellitus Control Programme: Gestational Diabetes Mellitus (GDM) is defined as glucose intolerance of variable degree with onset or first recognition during pregnancy. It may lead to Maternal and Foetal complications and major congenital anomalies, so as to prevent Maternal / Neonatal Mortality and Morbidity. All pregnant women those who come for Antenatal checkup for the first time, irrespective of duration of pregnancy are screened for GDM with Glucose Challenge Test. During 2020-21, 13,11,288 Pregnant mothers have been identified as positive for Gestational Diabetes Mellitus and have been managed effectively.

14.4.8 Blood Bank and Blood Storage Services: Blood transfusion service in the State is centralized implemented through three Government bodies,

i.e., State AIDS control society, State Blood Transfusion Council and State Drug Controller to operationalize blood transfusion services. In order to provide sufficient, safe and quality blood and blood components to the needy patients in Tamil Nadu, NHM provides budgetary support to TANSACS for blood transfusion services. There are 94 Blood Banks in the State wherein 3,67,053 units have been transfused in the year 2020-21. During this period 13,233 blood units have been transfused from 393 Blood storage units.

14.4.9 Feeding and Dietary Charges: Provision of diet for all in-patients in the public hospital, including pregnant women is an essential part of the package of assured services offered by the public facility. From conception to exclusive breastfeeding (first 6 months) the baby completely depends on mother's nutritional status. Hence, good nutrition is essential for normal growth and development of the baby. It also keeps the mother fit and healthy. Diet during stay in the health institutions (up to 3 days for normal deliveries and up to 7 days for caesarean deliveries) is provided under the scheme. During last year, 4,22,685 antenatal mothers and 92,405 postnatal mothers have been provided with diet in Government health facilities.

14.4.10 Pradan Manthri Surakshit Matrithva Abhiyan / High Risk Mother Observation: Pradan Manthri Surakshit Matrithva Abhiyan (PMSMA) aims to provide assured, comprehensive and quality antenatal care free of cost universally to all pregnant women on the 9th of every month. PMSMA guarantees a minimum package of antenatal care services to women in their 2nd / 3rd trimester of pregnancy at designated Government health facilities. A system of mentoring by Obstetricians is placed in all districts for ensuring better and continuous monitoring of all pregnant women especially the high-risk mothers. During 2020-21, 34,485 high risk mothers are benefitted under this scheme.

14.4.11 Mentoring of High-Risk Mother

- Virtual mentoring through Whatsapp groups have been created within the blocks in the districts. Mentors include Chief District Obstetricians, Mentor Obstetrician of the Block who would mentor Block Medical Officer, PHC medical officers, DMCHO, Staff Nurses and ANMs.
- Real-time Monitoring is being done by the Block Mentor Obstetrician who have been assigned one block / zone in rural and urban

areas. Hence all 385 block and 15 Zones in Chennai were covered in this group.

- Tracking of high-risk mothers through revamped PICME 2.0 Software.
- 45 Obstetricians have been pooled into the Telemedicine platform through-sanjeevani OPD to prevent unnecessary travel and exposure of the pregnant mothers.

14.4.12 Management of Pregnant mothers during COVID-19

- All PHCs, CHCs, Taluk Hospital in the State continued to provide basic emergency obstetric and newborn care such as antenatal care, normal delivery and essential newborn care for COVID negative pregnant women and low risk pregnant women.
- As most of the secondary care and tertiary care hospitals were converted as COVID Designated Hospitals, another block in the hospital has been made available for providing maternal health services to COVID suspect and COVID positive mothers.
- The 108 ambulance / JSSK / SBGF / other PHC vehicles are transporting the pregnant women who are suspected / COVID positive,

directly to the separate COVID suspect / COVID wards after triaging at the field.

14.4.13 e-Partograph and digitalization of Case

Sheets: The partograph is a paper-based tool where observations are recorded to provide an overview of labour and alerts the Staff nurse in case of any deviation in progress of normal labour so as to prevent complications. Hence e-partograph with digitalized case sheet was put forth for consideration in 21 high performing primary health care facilities with low human resource on a pilot basis. The benefits of this device are ease of use, minimal training requirements, improved data quality and capture, and seamless integration into current local practice. The above software preparation is under process so as to prevent maternal complications.

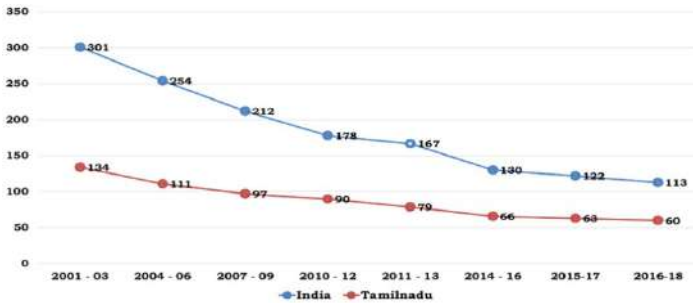
14.4.14 Surakshit Matritva Aashwasan

(SUMAN): Surakshit Matritva Aashwasan programme subsumes all existing initiatives under Maternal Health Programme for “Zero Preventable Maternal and Newborn Deaths” under one umbrella. In order to create a responsive health care system which strives to achieve zero maternal and infant deaths through quality care provided with dignity and respect.

14.4.15 Maternal Death Audit: To identify the reasons behind maternal deaths, the State is conducting a compulsory audit of all maternal deaths occurring in the state since 1994. Hence, the maternal death audits became fully established by Government of Tamil Nadu in 2004 itself, stating that all maternal deaths are being audited at all levels. This surveillance system helped in evolving timely interventions from primary health care to tertiary care to reduce maternal mortality. The program mandates that each maternal death be reported to the Reproductive and Child Health Commissioner within 24 hours of occurrence, irrespective of place of death whether it be a public facility or private nursing home or during the time of transit.

14.4.16 Maternal Mortality Ratio: Tamil Nadu currently ranks third lowest in Maternal Mortality Ratio (MMR) with 60 per 100,000 live births among major States in India (SRS, 2016-2018). The decline of MMR is attributed to all the targeted interventions and strategies implemented by the State in the last two decades.

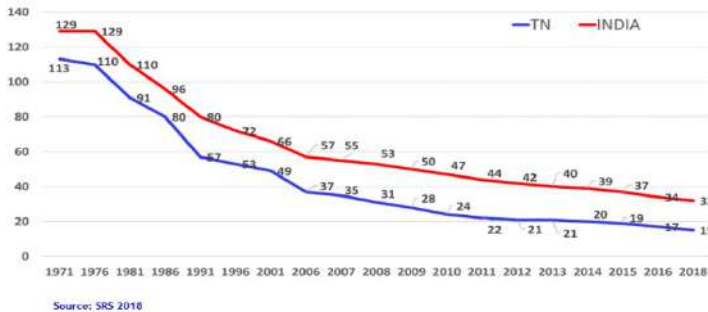
SDG GOAL ACHIEVED IN MMR



14.5 Child Health: Attainment of the highest possible level of health and wellbeing for children, through a preventive health care focused in Child Health policy, and universal access to quality health care services without financial hardship to beneficiaries is the Goal of the State. This would be achieved through increasing access, improving quality and lowering the cost of healthcare delivery. The policy recognizes the pivotal importance of achieving Sustainable Development Goal 3 (SDG) (Reduce IMR to 13/1000 live births by 2025).

A significant reduction in Infant Mortality Rate (IMR) from 24 per 1000 live births in 2010 to 15 in 2018 as per Sample Registration System (SRS) Data 2018 against the National IMR of 33 are indicative of the robust policy frame work and sincere efforts of the Government to improve the health profile of

the State. The State ranks as the second lowest IMR among the major States in the country.



14.5.1. Sick Newborn Care Units (SNCU)

- 75 Sick New Born Care Units, functioning at 24 Medical Colleges and 51 District/Sub-District hospitals are dedicated centres providing neonatal care to the sick neonates. These units are fully equipped with essential newborn care equipment and are manned by qualified Neonatologists, Paediatricians and trained Staff nurses.
- Regular follow up clinics are being conducted to review the newborn discharged from the SNCUs.
- 1,06,102 children have benefitted through this service during 2020-21.

14.5.2 Newborn Stabilization Units (NBSU)

- 146 Newborn stabilization units have been established at 109 Sub-District hospitals and 37 Level-II MCH centres to stabilize newborns presenting with emergency signs and to take care of stable preterm and low birth weight babies. These units provide neonatal care nearer to newborn home. They also serve to decrease the burden of the SNCUs by taking care of minor ailments of the new born.
- 24,794 newborn babies have benefitted from 2020-21.

14.5.3. Newborn Care Corners (NBCC)

- Newborn Care Corners (NBCC) have been established in all labour rooms to provide neonatal resuscitation and essential newborn care soon after birth by trained birth attendants. NBCCs are present in all the 2337 delivery points in the State.
- 5,41,095 newborns have been screened during 2020-21.
- The Medical officers and staff nurses have received Navajaath Sishu Suraksha Karyakram (NSSK) training as a part of

their Induction training, BEmONC and RMCHA training.

14.5.4 Paediatric Resuscitation and Emergency Management Unit: 38 units of Paediatric Resuscitation and Emergency Management Units (PREM) have been established at 22 District hospitals, 6 Sub district hospitals and 10 Medical College hospitals. These units mainly focus on Paediatric Emergencies like Status Epilepticus, Respiratory distress, Septic Shock, Febrile illness, Poisoning and Scorpion sting etc. 14,656 children have been benefitted in Paediatric Resuscitation and Emergency Management Units during 2020-21.

14.5.5 Paediatric Intensive Care Unit: 24 Medical College hospitals are provided with Paediatric Intensive Care Unit (PICU). This facility serve as a regional center and possess a large catchment area likely to encompass Tertiary and community-based PICUs. These centers provide comprehensive services to all paediatric critically ill patients, including cardiovascular surgical services and transplantation services. Specialized PICUs such as paediatric cardiovascular and neuro critical intensive care units are included in this level. From April 2020 to March 2021, 92,141 Children have been admitted at Paediatric Intensive Care Units.

14.5.6 Nutrition Rehabilitation Centres (NRC):

Six Nutrition Rehabilitation Centres have been established at Govt. Dharmapuri Medical College Hospital, Institute of Child Health and Hospital for Children, Egmore Chennai, Government Rajaji Hospital Madurai, Government Tiruvannamalai Medical College Hospital, Government Tirunelveli Medical College Hospital and Perambalur District Headquarters Hospital. The children with malnutrition are being identified in the outpatient department and also through referral from the community are admitted in the Nutrition Rehabilitation Centre. Special nutritious formula feeding is provided to them under the guidance of a Paediatrician and assisted by a Nutrition Counselor. 1,045 malnourished children have been treated at these centers during 2020-21.

14.5.7 Comprehensive Lactation Management Centre / Lactation Management Unit:

Establishment of Human Milk Bank designated as Comprehensive Lactation Management Centre (CLMC) / Lactation Management Units (LMU) is mandatory for feeding the Low-Birth-Weight babies and extreme premature babies as the babies cannot be fed directly by the mother. In addition, it is helpful for the babies of non-lactating mothers, extremely sick mothers and abandoned babies in

CeMNC hospitals or outside the hospitals. In Tamil Nadu, totally 24 CLMCs are functioning since 2018 at different Government Medical Colleges Hospitals and Government District Hospitals. Additionally, 12 new CLMCs/LMUs approved in 2020-21 are yet to become functional. Amount of milk collected during the period April 2020-March 2021 is 4972.6 litres (4972666 ml). 31,825 Newborn babies have been benefitted through CLMC.

14.5.8 Community based Child care Interventions and Out Reach Activities: The following Community based Child Care Interventions and Outreach activities are being implemented in the State for effective child care services.

- Home Based New Born Care(HBNC)
- Home Based Young Child Care(HBYC)
- Anemia Mukth Bharat (AMB)
- National Deworming Day Campaign
- Vitamin-A supplementation Programme
- Intensified Diarrhoea Control Fortnight Programme (IDCF)
- Social Awareness and action to Neutralize Pneumonia (SAANS)

- Mother's Absolute Affection(MAA)

14.5.9 Immunization:

14.5.9.1 Universal Immunization Programme:

The State has been vigorous in ensuring complete immunization of Children and pregnant women. The State has recorded more than 97% coverage under different vaccinations over the years.

Approximately, 10,000 outreach Immunization sessions are being conducted every week in remote and inaccessible areas of Tamil Nadu. Further, the institutional immunization services are also being strengthened to ensure complete coverage of immunization. From April 2020 to March 2021 totally 9,27,416 children have been fully immunized.

14.5.9.2 Electronic Vaccine Intelligence Network

(e-VIN): Electronic Vaccine Intelligence Network (e-VIN) streamlines the vaccine flow network and contributes towards strengthening health system and ensures that the idea of Universal Immunization is properly implemented.

Out of 2630 Cold chain points, 44 District Vaccine Stores, 10 Regional Vaccine Stores, one State Vaccine Store became live in e-VIN Portal. 2877 Cold Chain Handlers in the State have been trained

in basic e-VIN application. Temperature loggers have been installed in 2915 Cold Chain Equipments such as ILR/DF/WIC and WIF. After the completion of two years of UNDP support, the project has been taken over by NHM in the current year 2021-22.

14.5.9.3 Pneumococcal Conjugate Vaccine to very low birth weight Babies: The Pneumococcal Conjugate Vaccine (PCV) effectively prevents the disease up to 90 percent of people who get immunized. As per last year HMIS data, 7,934 babies admitted across 75 SNCUs with less than 1,500 gm body weight out of which 4,470 were saved (56.33%) by provision of Pneumococcal Conjugate Vaccine (PCV). Hence all the preterm/Very Low Birth Weight newborns in the SNCU will be immunized with Pneumococcal vaccine to prevent further morbidity and mortality after discharge.

14.5.10. Child Death Audit: The National Health Mission played a crucial role in reduction of Infant / Under 5 Mortality rate in the State by specific targeted interventions. The current system of conduct of Child Death Audit at the districts by District Collectors and periodic review by the Expert Committee at the State through Video Conference

has provided valuable learning for reduction of Infant Mortality in the State.

14.5.11 Rashtriya Bal Swasthya Karyakram:

Rashtriya Bal Swasthya Karyakram (RBSK) is being implemented in Tamil Nadu since 2015. RBSK is an important initiative aiming at early identification and early intervention for children from birth to 18 years of age to cover 4 'D's viz. Defects at birth, Deficiencies, Diseases, Development delays including disability. Child Health Screening and Early Intervention Services under RBSK envisages to cover 30 selected health conditions for Screening, early detection and management. All children including newborn and the children attending the Anganwadi Centres and Government/ Government-aided schools are benefitted through this programme. There are 805 mobile teams functioning all over the State. 770 mobile teams functioning in rural areas throughout the State at the rate of two mobile teams per block for 385 block PHCs. In addition to it, 15 Mobile Health Teams in Greater Chennai Corporation and 20 Mobile Health Teams in the rest of the urban areas of Tamil Nadu are functioning to cater to the needs of the urban population. The mobile team screens all pre-school children below 6 years of age for deficiencies, diseases, developmental delays including disability

at the Anganwadi centre at least twice a year and school children of age 6 to 18 years will be screened at least once a year. Due to the COVID-19 pandemic and non-functioning of schools & Anganwadi centres, the Mobile health teams are providing COVID care support by conducting fever camps as outreach services. However, the RBSK team have identified 44,112 children with 4Ds and referred then to DEICs during the year 2020-21.

14.5.12 District Early Intervention Centre: District Early Intervention Centers (DEIC) are established at Medical College Hospitals and District Headquarters Hospitals in the districts. A 12 member team consisting of Paediatrician, Medical officer, Staff Nurses and Paramedical staff is engaged to provide social, educational, vocational and economic rehabilitation services. 1,59,901 children have been managed in all 34 DEICs in the State from April 2020 to March 2021.

14.6. Adolescent Health

14.6.1 Weekly Iron and Folic Acid Supplementation (WIFS): The programme is implemented in all districts to control anaemia among adolescents in rural and municipal areas. The programme involves distribution of one Iron and Folic Acid (IFA) tablet per week to all

adolescent girls and boys (10 to 19 years of age), both in school and out of school along with biannual de-worming (February and August every year). The blue IFA (100 mg elemental Iron and 500 micrograms Folic Acid) tablets are given on every Thursday under supervised consumption by teachers and Anganwadi workers.

14.6.2 Rashtriya Kishore Swasthya Karyakram (RKSK): The main objective of the programme is to improve nutrition, enable sexual and reproductive health, enhance mental health, prevent injuries and violence, prevent substance misuse and address conditions for NCDs in the adolescent age groups. The new Adolescent Health (AH) strategy focuses on age groups 10-14 years and 15-19 years with universal coverage, i.e., males and females; urban and rural; in school and out of school; married and unmarried; and vulnerable and under-served. The RKSK programme is implemented in 19 districts in the State. Adolescent Friendly Health Clinics (AFHCs) are successfully functioning in 245 Block PHCs, 166 Government Hospitals, 19 District Head Quarters Hospitals and 12 Medical College Hospitals. Four Peer Educators (two boys and two girls) are selected in every Village by the Village Health Water Sanitation and Nutrition Committee. Adolescent Health Club meeting is conducted every

month for the Peer Educators at the Health Sub centre by the Village Health Nurse. The Adolescent Health Days are observed in every quarter to spread awareness and knowledge on the adolescent health issues at each of the Village and Town Panchayat level by the Village Health Water Sanitation and Nutrition Committee members by including the Peer Educators. 39,532 Peer Educators have been selected and 37,341 Peer Educators have been trained as on date under this programme.

14.7 Training

14.7.1 Managerial Skill Training for Medical Officers: This training is imparted to all the newly recruited Medical Officers for a period of 15 days on all health programmes being implemented by this Department and also includes their administrative role in the PHCs.

14.7.2 BEmONC Training (Basic Emergency Management of Obstetric & Neonatal Care): This training is provided for a period of 6 days to all the PHC Medical Officers to upgrade the knowledge on the subject. This training is being conducted at 6 Regional Training Institutes in association with their corresponding Government Medical Colleges.

14.7.3 MCH Skill lab Training to Medical Officers

/Staff Nurse/ANM: MCH skill lab training is conducted periodically for Medical Officers, Staff nurses, ANM at the skill labs of all 6 Regional Training Institutes to upgrade the skill and knowledge on reproductive, maternal, new born child and adolescent health for reducing maternal and child morbidity and mortality.

14.7.4. Poison Management Training: Poison management training is imparted to familiarise the medical officers in handling medical emergencies and provide systematic management skills for handling toxicology patients.

14.7.5 Life Saving Anesthetic Skills Training

(LSAS): This training programme of 24 weeks is provided to MBBS doctors since 2007 and specifically focuses in developing skills of obstetric anesthesia to operationalize comprehensive emergency obstetric and new born care centers along with cardio pulmonary cerebral resuscitation. It is being conducted in 11 Government medical college institutions. 634 doctors have been trained till date from the inception of the training.

14.7.6 Emergency Obstetric Care Training

(EmOC): This training is implemented to train medical officers in providing high quality emergency

care services in under-served areas to prevent maternal mortality & morbidity. Intensive programme of 25 weeks training is conducted in 5 Government medical institutions since 2009. 143 Doctors have been trained till date.

14.7.7. National Nodal Centre (NNC): College of Nursing, Madras Medical College acts as a Centre of Excellence for the pre-service education for nursing-midwifery cadre in the State and would contribute to the overall strengthening of nursing-midwifery cadre. This six-week training course for the nursing faculty aims at strengthening their teaching skills, knowledge and the same to their students in their Colleges.

14.8 Tribal Health

14.8.1 Accredited Social Health Activists (ASHAs): In tribal / hilly / remote / difficult areas, 2,650 ASHAs are being engaged in PHCs to deliver health services. Since ASHAs are from the same tribal community, they motivate the tribal mothers for regular antenatal checkups in Health Sub-Centres and Primary Health Centres, which results in promoting the institutional safe delivery practices and also create awareness about health schemes.

14.8.2 Birth Waiting Room in 17 Tribal PHCs: In non-motorable roads and villages with a long

distance to a health facility, the tribal mothers are being admitted two weeks before the Expected Date of Delivery in birth waiting rooms established in 17 PHCs in the foot hills of tribal areas for safe delivery under institutional care. In Birth Waiting Room (BWR), nutritious diet is provided to the antenatal mother & attender during their entire period of stay. Since April 2020- March 2021 totally 1,601 Tribal Antenatal mothers have benefitted through the tribal birth waiting rooms.

14.8.3 Referral Services in Tribal Districts: The State has a well-established emergency referral transport system established through National Ambulance Services. In order to reach those tribal villages which are inaccessible by regular ambulances, four-wheel drive vehicles suitably equipped as ambulances have been provided in 76 identified points in tribal / hilly areas. These vehicles ensure timely referral of tribal people to higher referral centers and prevent adverse outcomes in the tribal community.

14.8.4 Tribal Bed Grant Scheme: Tribal Bed Grant is a Scheme where free Diagnostics, Drugs for IP patients, Surgeries & diet are being given to the tribal people who are hospitalized in tribal areas. This scheme is being operated through NGOs. This

Scheme has increased the health seeking behavior in the tribal Community, access to quality health care and has reduced out of pocket expenditure. 704 tribal patients have benefited through this scheme during 2020-21.

14.8.5 Tribal Counselors: Tribal Counselors have been placed in the 10 Government Hospitals in the tribal districts. They act as ambassadors between the health systems and tribal community. They also function as health activists in the institution where they not only create awareness on health and its determinants but also motivate the community towards healthy living practices.

14.8.6 Prevention and Control of Hemoglobinopathies: Among the South Indian States, Tamil Nadu is the first state to implement Prevention and Control of Hemoglobinopathies program for early detection of Hemoglobinopathies like Sickle Cell Anaemia, Thalassemia among the tribal population. NHM-TN along with other Directorates are screening for Hemoglobinopathies (Sickle Cell Anaemia & Thalassemia) in adolescent children studying in 10th and 12th standard and unmarried school dropouts above the age of 14 in 30 selected tribal blocks in 13 Districts since November 2017. The programme is being

implemented in Dharmapuri, Salem, Krishnagiri, Namakkal, The Nilgiris, Coimbatore, Thiruvannamalai, Villupuram, Vellore, Tiruchirapalli, Dindigul, Erode and Kanyakumari districts. On identification of the trait, the children and their parents are provided with genetic counseling at District Early Intervention Centres. Since 2017 totally 22,972 Children have been screened for the disease with a positivity rate of 13%.

14.8.7 Integrated Treatment Centers for Haemophilia and Haemoglobinopathies: To provide continuum of care and services for children / adults affected with Haemophilia and Haemoglobinopathies, comprehensive day care centre has been established at 5 regional zones namely:

1. Institute of Child Health and Hospital for Children, Chennai-8 (Nodal Centre)
2. Government Mohan Kumaramangalam Medical College Hospital, Salem
3. Government Dharmapuri Medical College Hospital, Dharmapuri.
4. Government Rajaji Madurai Medical College Hospital, Madurai.

5. Government Theni Medical College Hospital, Theni.

These centres are beneficial for the children / adults requiring frequent blood/factor transfusions and providing iron chelation therapy for transfusion dependent haemoglobinopathies. Since 2018 totally 3,758 patients have received Blood Transfusion and 3,359 patients have received factor transfusion through these centres.

14.9 Mobile Medical Units: Mobile Medical Units have been provided to all blocks of Tamil Nadu under NHM and they are functioning since 2009 to cover remote, hilly/tribal and inaccessible areas. This scheme has been renamed as Hospital on Wheel Programme with additional staff of one Laboratory Technician and Attendant. The Hospital on wheels is manned by one Medical Officer, one nurse, one lab technician, one driver and one attendant. Each Mobile Medical Unit covers 42 villages on an average being visited on fixed days as per the Fixed Tour Program (FTP). During the year, April 2020 to March 2021 totally 1,63,39,805 people were benefited through 2,22,720 camps conducted by 396 vehicles.

14.10. Tribal Mobile Medical Units (By NGOs): To augment the Mobile Outreach

Services in tribal and hard to reach areas additionally 20 Mobile Medical Units are being operationalized through NGOs in tribal blocks of 14 Districts. These Tribal Mobile Outreach Team comprises of one Medical Officer, Staff Nurse, Lab Technician and Driver and conducts minor ailment clinic, Antenatal screening, Non-Communicable Disease screening and lab tests. In addition to the above, the team screens the children (in the age group of above 14 years) 10th & 12th Standard Tribal & Non-Tribal children and dropouts for Haemoglobinopathy traits. From April 2020 to March 2021 these 20 MMU teams have visited 10,984 villages and treated 2,89,385 patients in tribal villages.

14.11. Quality Certification Programs

14.11. 1 National Quality Assurance Standards (NQAS): NQAS aims to match the expectations of patients through filling up the gaps in the service delivery and monitoring it by three levels of assessments i.e. Internal Assessment, State Assessment and National Level External Assessment. NQAS assessment measures quality through eight broad areas of concern – Service Provision, Patient Rights, Inputs, Support Services, Clinical Care, Infection Control, Quality

Management and Outcome. Qualified facilities are financially incentivized with an amount of Rs.10,000 per functional bed for the certified year and the subsequent two years, duly completing the assessment as per guidelines. During the year 2020-2021, the State has applied NQAS National virtual assessment for one District Head Quarters Hospital, two Community Health Centres, two Primary Health Centres and four Urban Primary Health Centres. Among the above nine facilities, eight facilities have achieved NQAS certification

14.11.2 Kayakalp Award Scheme (Cleanliness Drive and Award): Kayakalp certification ensures to promote cleanliness and enhance the quality of public health facilities through seven parameters- Hospital/Facility Upkeep, Sanitation and Hygiene, Waste Management, Infection control, Support Services, Hygiene Promotion and Cleanliness beyond Boundary Wall. The purpose of this initiative is to appreciate and recognize the efforts to create a healthy environment in all DHQH, SDH, CHC, PHC, UCHC and UPHC. In 2020-21, Kayakalp award programme activity has been implemented across the State and external assessment has been completed for the following facilities:

Type of facility	Total No. of facilities participated in Kayakalp assessment	Total No. of facilities score above 70% in Kayakalp Assessment
DHQH	31	29
SDH	278	150
CHC	400	340
PHC	1423	837
UPHC	460	229
HWC-HSC	985	353

14.11.3 Mera Aspataal: Mera Aspataal is an initiative to capture patient feedback for the services received at the hospital through user-friendly multiple channels such as Short Message Service (SMS), Outbound Dialing (OBD) mobile application and web portal. The patient can submit the feedback in Tamil language on mobile app and web portal; for the hospitals visited in last seven days. My Hospital will help the government to take appropriate decisions for enhancing the quality of healthcare delivery across public facilities which will improve the patient's experience. 31 District Hospitals are ranked under District Hospital ranking system based on Patient Satisfaction System Score generated in Mera Aspataal.

14.12 Community Action for Health (CAH)

Community Action for Health (CAH) places people at the centre of the process of ensuring that the health needs and rights of the community are being fulfilled. It allows them to actively and regularly monitor the progress of the NHM interventions in their areas resulting in the community participation and contribution towards strengthening the health services. The major objectives planned are to set up a mechanism for Community led monitoring through existing SHG network in the State in coordination with all Directorates to strengthen the community supportive structures to handhold the community monitoring process in Tamil Nadu.

14.13 Occupational Health Services for Unorganized Sector Workers: In Tamil Nadu, the un-organized sector work force constitutes 93% of the total workforce (Census 2011). They suffer from various occupation-induced diseases like Silicosis, Asbestosis, Deafness, Irritant Dermatitis, Spondylitis etc. Since most of the occupation-induced diseases result in irreversible damage, timely screening, prevention and early treatment is the way forward. Government ordered for implementation of occupational health services for unorganized sector workers in all 385 blocks through respective MMUs. The MMUs visit the

unorganized sector areas every Saturday and in addition one working day of first week of every month and provide occupational health services to workers. From April 2020 to March 2021 totally 70,141 un-organized sector workers were screened, of whom 2,321 workers were referred to district level hospitals for further investigations and treatment. Government in addition has also introduced 50 Mobile Health Clinics for providing Occupational Health Services for construction workers. This activity is funded by Department of Labour and Employment and implemented through NHM-TN. From April 2020 to March 2021, totally 67,181 construction workers were screened of whom 679 were referred to higher centers for further management.

14.14 Transgender Clinics: To cater to the specific needs of Transgender community, Government has established Multi- speciality Transgender Clinics at Rajiv Gandhi Government General Hospital, Chennai and Government Rajaji Hospital, Madurai. These Clinics are being conducted on every Friday.

14.15 National Oral Health Programme: With an objective to improve the oral health among the population of Tamil Nadu, NHM TN has established

477 Dental units to provide accessible, affordable and quality oral health care services. NHM Dental units are equipped with necessary trained man power equipment including dental chairs and support for consumables are provided through National Health Mission. From April 2020 to March 2021 a total of 8,95,891 Dental procedures were carried out to treat various Oral Health Conditions.

14.16 Pradhan Mantri National Dialysis Programme: Tamil Nadu tops the country with 927 Haemodialysis machines, the largest number in the Government sector. In Tamil Nadu, 0.8% of the population is suffering from End-Stage Renal Disease (ESRD). Under this programme, free Hemodialysis services are available in 121 Centres including 24 Medical College Hospitals, 89 Taluk & Non-Taluk Hospitals, 5 Urban Primary Health Centres and 3 Block Primary Health Centres across the State. Between April 2020 and March 2020 totally, 4,50,617 Dialysis cycles were conducted for 7,454 patients with ESRD in Tamil Nadu.

14.17 National Urban Health Mission (NUHM): As per 2011 census, urban population has been estimated to 48.45 percentage, of which 57.98 lakh (16.6% of the urban population) live in urban slums, where Tamil Nadu has the highest urban population

in the country. The goal of NUHM is to “improve the health status of the urban population in general, but particularly of the poor and other disadvantaged sections by facilitating equitable access to quality healthcare through a revamped public health system, partnerships community-based mechanism with the active involvement of the urban local bodies.

NUHM-strive to achieve its goal through the following approaches:

- Need based city specific urban health care system to met the diverse health care needs of the urban poor and other vulnerable sections.
- Institutional mechanism and management systems to met the health-related challenges of a rapidly growing urban population.
- Partnership with community and local bodies for a more proactive involvement in planning, implementation, and monitoring of health activities.
- Availability of resources for providing essential primary health care to urban poor.
- Government of Tamil Nadu has established 420 Urban Primary Health Centres (UPHCs)

and 16 UCHCs in 11 Corporations and 76 Municipalities including Greater Chennai Corporation as per NUHM norms. One UPHC for more than 50,000 population in metro and non-metro cities are established. One UCHC is established for more than 2,50,000 population in non-metro area and more than 5,00,000 population in metro area.

In addition to providing comprehensive primary health care services the following six special services are provided under NUHM.

14.17.1. Special Outreach Camp: The Special Outreach Sessions provide curative, preventive & promotive services and would require services by specialists (including Gynecologists, Dermatologists, Ophthalmologists, ENT specialist, Orthopedic Surgeons, Psychiatrists, and Dentists) relevant to the services to be provided in the outreach session. Three camps per month are being conducted under Special outreach sessions with incentive, of Rs.10,000/camp.

14.17.2. Urban Health Nutrition Day (UHN Day): UHNs would cater to the entire population especially population living in slums/vulnerable populations within the catchment area of an Urban

PHC (UPHC), to ensure universal coverage for a set of basic curatives and a larger basket of preventive and promotive services under the National Urban Health Mission (NUHM). UHN days are conducted by Urban Health Nurse @ one UHN day/UHN/Month and it will be conducted at the Anganwadi Centre (AWC) or other suitable community buildings where such services can be provided on a regular basis.

14.17.3. Urban Mobile Medical Units: Urban MMUs in the major corporation areas to reach the unreached population like homeless people, nomads, Transgender and workers of unorganized sector at their residence / working place who are generally reluctant to visit the PHCs for their ailments and motivate them towards health seeking behavior. The urban MMUs provide high quality Medical Camp with focus on MCH and NCD services as per the fixed plan, ten units are functioning from March 2021 under NUHM (five for Greater Chennai Corporation and one each for Coimbatore, Madurai, Tiruchirappalli, Tiruppur and Salem corporations) to reach the unreached population of the slum, migrant population and the workers of unorganized sector.

14.17.4 Urban Polyclinics: A polyclinic is an outpatient clinic where multiple specialties provide only outpatient services in a single facility at fixed timings, giving a comprehensive speciality care under one roof for the referred patients from UPHCs. Polyclinic is functioning in 96 Urban PHCs throughout Tamil Nadu in flexible timings between 4.30 PM to 8.30 PM and speciality services such as General Medicine, Paediatric Medicine, Dental, Ophthalmology, ENT, Obstetrics and Gynecology, Dermatology, Psychiatry, Orthopedics and Physiotherapy services are provided.

14.17.5 Mahila Arogya Samiti: MAS is a community based federal group of around 50 to 100 households, depending upon the size and concentration of the slum population formed with 10-12 local resident women. 3,324 MAS have been approved for 11 Corporations and they are responsible for health and hygiene, behavior change promotion and facilitating community risk pooling mechanism in their coverage area.

14.17.6 Kayakalp: Kayakalp is implemented in 420 Urban Primary Health Centres and 16 UCHCs in Tamil Nadu. Out of 436 Urban facilities, 226 facilities were awarded Kayakalp awards up to the year 2020-21.

14.18 Essential Diagnostics Services System (EDSS): The main aim of the programme is to avoid inordinate delay in receiving the Lab reports which enables early diagnosis and management of diseases and reduces the Out-of-Pocket Expenditure (OOPE) of the public. The programme helps to 1) Strengthening of Labs in all Government health facilities 2) Interconnecting all the Labs in Government Health facilities through LIMS (Laboratory Information Management System) and 3) Lab Sample transport mechanism through Hub and Spoke model. Under EDSS, Histo-pathological examination for cancer patients is provided under Free Pathology services.

14.19 DNB Programme in District Hospitals: With the objectives of improving the quality of speciality care services and closing the gaps between the secondary and tertiary care services by strengthening the secondary care hospitals, Government of Tamil Nadu has started DNB courses. As on date five District Headquarters Hospitals, one Non-Taluk Hospitals and six Medical Colleges got accreditation to conduct the DNB courses in the State.

14.20 Integrated Disease Surveillance Programme (IDSP): Integrated Disease

Surveillance Programme (IDSP) was launched to detect and respond to disease outbreaks quickly. The important activities of IDSP are,

- Weekly disease surveillance data on epidemic prone communicable diseases are collected from all Government and Private reporting units.
- Early Warning Signal (EWS) is generated whenever there is rising trend of illnesses or any clustering of cases from Government and Private Institutions. EWS is sent to the periphery for the early intervention and control of any eventual outbreak. The outbreaks are notified immediately to the Public Health System.
- The Integrated Health Information Platform (IHIP) is a web-enabled electronic information system that is embedded with all applicable Government of India's e-Governance standards, Information Technology (IT), data & meta data standards to provide state-of-the-art single operating picture with geospatial information for managing disease outbreaks and related resources.

14.21 COVID Control Activities: While overall details on COVID-19 management has been included in separate chapter certain specific initiatives are covered here.

14.21.1 Emergency COVID-19 Response and Health System Preparedness Package (ECRP):

The Government of India as a measure of striving support to the States has provided additional resources under ECRP to manage the COVID-19 pandemic as well as to develop strong and resilient public health systems to deal with such situations in future. In this regard, Government of India has approved “India COVID-19 Emergency Response and Health System Preparedness Package” with 100% central funding. The project is being implemented in three phases during the period from January 2020 to March 2024. The objectives of Emergency COVID-19 Response Package are to support prevention and preparedness activities, procurement of essential medical equipments, consumables and drugs, strengthening of surveillance activities including setting up of laboratories and Bio-security preparedness. The following activities are supported under the Emergency COVID-19 Response Package:

1. Diagnostics including sample transport

2. Drugs and supplies including PPE and masks
3. Equipment/ facilities for patient-care including support for ventilators etc.
4. Human Resource (Existing & Additional) incl. incentives for Community Health Volunteers
5. Mobility Support
6. IT systems including Hardware and software, etc.
7. IEC/BCC
8. Training
9. Miscellaneous

As a part of the above, GOI has released a sum of Rs.869.09 crore as Grants-in-Aid with 100% central share for COVID-19 under Emergency COVID-19 Response Package (ECRP) through NHM TN during the financial year 2020-21.

14.21.2 COVID-19 War Room/ Unified Command Centre (UCC): The Government of Tamil Nadu has established a COVID-19 Unified Command Centre (UCC) on 30.04.2021 at the office of the National Health Mission, for coordination with all other line Departments and Directorates for effective management of hospital beds, oxygen and other such resources for responding to the COVID-19

pandemic especially in Greater Chennai Corporation and adjacent districts. On 05.05.2021, the Hon'ble Chief Minister of Tamil Nadu has announced the same and re-designated the UCC as the State COVID-19 War Room. The War Room acted as a cross-departmental leadership hub for COVID control activities in the State and became the Single Nodal Point and Command Centre for managing bed availability for both Government and Private Hospitals, especially for critically-ill patients who requires oxygen. The oxygen cylinder requirements in Private Hospitals were also coordinated through the war room with the support of the State Drug Controller. The war room through the 104 Health helpline and social media (twitter, etc.) reached out and addressed the needs of public during the second wave of the pandemic. From 19.05.2021, as a plan to decentralize the activities of the State War Room, district war rooms were also established in all districts and in Greater Chennai Corporation which are spearheading the activities in similar manner to the State War Room.

14.22 Telemedicine/National Telemedicine Service

e-Sanjeevani: e-Sanjeevani enables virtual meetings between the patients and doctors &

specialists from geographically dispersed locations, through video conferencing that occurs in real time. At the end of these remote consultations, e-Sanjeevani generates an electronic prescription which can be used for sourcing medicines. e-Sanjeevani AB-HWC, the doctor-to-doctor telemedicine platform is implemented at all the Health and Wellness Centres under Ayushman Bharat Scheme of Government of India. Under e-Sanjeevani AB-HWC, Tamil Nadu has completed over 70,000 consultations.

14.23 - 15th Finance Commission – Health Grants: Considering the limitation of Health infrastructure in the Country brought to the fore by the COVID-19 pandemic, the 15th Finance Commission has recommended sector specific grants for health sector primarily for addressing the gaps in Primary Health Care. The Finance Commission has recommended for channelizing the grants for Health through Local Government as it has felt that the Urban and Rural bodies could play a catalytic role in ensuring health service delivery. In addition to the above, the FC-XV, has recommended the formation of a State Level Committee which would be headed by the Chief Secretary of the State Government and a District Level Committee headed by the District Collector.

The FC-XV has allocated health grant amounting to a sum of 4279.51 crore to the state of Tamil Nadu for the period spanning financial years 2020-25.

The following Rural and Urban Components could be strengthened in the grants allotted through XV Finance Commission.

- Building-less **(a)** Community Health Centres (CHCs), **(b)** Primary Health Centres (PHCs) and **(c)** Sub Health Centres (SHCs).
- Block Level Public Health Units.
- Support for diagnostic infrastructure to the primary health care facilities such as PHCs and HSCs
- Conversion of **(a)** rural PHCs and **(b)** Sub-Centres to HWCs.
- Support for diagnostic infrastructure to the primary health care facilities – Urban PHCs
 - (a)** Grants for Urban Health and Wellness Centres
 - (b)** Grants for Urban Health and Wellness Centres – Poly Clinic.

The health grants allocated by the FC-XV for Tamil Nadu for the year 2021-22 is 890.12 crore.

Chapter - 15

MAKKALAI THEDI MARUTHUVAM

15.1 “Makkalai Thedi Maruthuvam” (MTM) scheme is a flagship program of Government of Tamil Nadu offering holistic and comprehensive set of “Home Based Health Care Services” to ensure continuum of care, sustainability of the services and also meet the health needs of beneficiaries in the family as a whole. Another important feature of the scheme is that each and every line-listed beneficiary under the scheme is brought under the **Population Health Registry (PHR)** as it will form the common denominator for continuous monitoring of the patients. The MTM scheme was inaugurated by Hon’ble Chief Minister of Tamil Nadu on 05.08.2021 and is implemented across the State in a phased manner.

15.2 To address the challenges in Non Communicable Diseases, the “**Makkalai Thedi Maruthuvam**” scheme is conceptualised in such a way that a field level team would provide home based health care services for line-listed beneficiaries such as delivery of Hypertension / Diabetes Mellitus drugs for patients who are 45 years and above and those with restricted mobility, Home based Palliative Care and Physiotherapy

services, caring for End Stage Kidney Failure patients, referral for Essential Services, identification of children with congenital problems or any other health needs in the family which needs to be informed and followed up.

15.3 The **field level team** would include Women Health Volunteers (WHV) engaged through the Tamil Nadu Corporation for Development of Women (TNCDW), Mid-Level Health Provider (MLHP), Palliative Care Nurse, Physiotherapist and Health Inspector along with the monitoring support of other Public Health field staff.

15.4 All the beneficiaries identified through the “**Makkalai Thedi Maruthuvam**” scheme will receive the required services right from their doorsteps up to the level of Medical Colleges, thereby involving all tiers of the Health System through the existing 2432 NCD Staff Nurses, 4462 Pharmacists and 19,583 Medical officers. In the first phase, 1264 Women Health Volunteers, 50 Physiotherapist and 50 Palliative Care Nurses are engaged to provide home based outreach services. In addition, a branded vehicle is provided to each block to enable the block level staff to reach the beneficiaries.

15.5 By achieving good control of Diabetes and Hypertension in patients, the risk for development of complications is reduced thereby decreasing the scope for hospital admission and the associated out of pocket expenditure. The home based services like Physiotherapy and Palliative services also complement the care given and improve the quality of life of the patients. The Home based service also includes referral for essential services and identification of children with congenital problems. All these community based intervention pave way for achieving the sustainable Development Goals of reducing premature mortality from NCD's through prevention and treatment by one third by 2030.

15.6 This scheme is implemented at a tentative annual cost of **Rs.258 crore** covering both Rural and Urban areas. The financial and logistical needs of the scheme are currently met out by utilising funds approved in the respective programs under NHM-TN with additional support from Tamil Nadu Health System Reforms Project (TNHSRP), Chennai.

15.7 The scheme is initially expected to reach around 30 lakh households thereby benefiting around 1 crore population and is targeted to cover the entire State of Tamil Nadu by the end of the

year which will immensely contribute to achieving the goal of “Universal Health Coverage” in the State. As on 28.08.2021, 2,42,655 patients are benefitted under this scheme.

Chapter - 16

TAMIL NADU URBAN HEALTH CARE PROJECT

16.1 Tamil Nadu Urban Health Care Project is devised by Government of Tamil Nadu with a view to improve the health services in urban areas by strengthening the infrastructure of health institutions with the assistance of the Japan International Cooperation Agency (JICA).The project will be implemented over a period of seven years from 2016. The Project cost is Rs.1,634 crore out of which JICA contribution is Rs.1,388 crore (85%) loan component and State share is Rs.245.6 crore (15%).

The project components include

- i. Upgrading tertiary care hospitals with facilities and equipment.
- ii. Strengthening referral hospitals with equipment.
- iii. Strengthening secondary care hospitals with facilities and medical equipment.
- iv. Strengthening Hospital Management.
- v. Strengthening Primary health Care in Non Communicable diseases

The main focus of the Project is on –

- i. Improving the treatment of Non Communicable Diseases by providing advanced treatment for Cardio-vascular diseases, Cancer, Chronic respiratory diseases, Diabetes etc.
- ii. Improving the existing hospital infrastructure by replacing and recasting physically deteriorated and functionally out dated existing buildings with a comprehensively designed model “Central Diagnosis Block”.
- iii. The project intends to introduce advanced Japanese medical technology such as hybrid operation theatre system, interventional radiology by constructing ‘State of Art’ facilities as well as devising operation and maintenance methodologies.

16.2 Locations:

- i. The project will be implemented in 17 cities and cover 21 facilities.
- ii. Under this project it is proposed to provide multi-storied building at three Government Medical College Hospitals located at Madurai, Kilpauk at Chennai and Coimbatore.

- iii. Hi-tech equipment will be provided to 11 referral Medical Colleges Hospitals in Salem, Vellore, Thanjavur, Tirunelveli, Pudukottai, Tiruchirapalli, Thoothukudi, Kanyakumari, Krishnagiri, Dindigul and Tiruppur.
- iv. Hi-tech equipment will be provided to three District Headquarters Hospitals at Erode, Cuddalore and Periyakulam.
- v. Construction of multi-storied building at four secondary care hospitals at Thiruvallur-Avadi, Salem-Ammappettai, Tiruppur-Velampalayam and Tirunelveli-Kandiyaperi.
- vi. Equipment will be provided in two regional training institutes at Poonamallee and Samayanallur.

16.3 Details of the Activities

16.3.1 Upgrading Tertiary Hospitals (Infrastructure Rs.368.20 crore and equipment Rs.497.41 crore): It is proposed to provide advanced Operation Theatre (OT) Centre containing OT Centre for General, Vascular, Cardiothoracic, Plastic surgery, Urology, ENT, Paediatric Surgery & Hybrid OTs, IVR rooms, Pre-operative Care unit, Sick Intensive Care Unit, Post Anaesthesia Care Unit, Imaging Centre,

Auditorium, etc. at Government Medical College Hospitals at Madurai, Kilpauk and Coimbatore at a cost of **Rs.368.20 crore**. It is proposed to provide equipment for advanced operation theatre centre with Anaesthesia work station, C-arm machine, Endoscopes, Hybrid OT equipment, IVR system, Angiography system, Imaging Centre with MRI, CT scan, etc., at Government Rajaji Hospital, Madurai, Kilpauk Medical College Hospital and Coimbatore Medical College Hospital at a cost of Rs.497.41 crore.

Upgrading of 3 Tertiary Hospitals

Component	Hospital	Buildings Detailed Cost Estimate in INR crore	Equipment cost as per DPR in INR crore	Total cost in INR crore
1.1.1	Government Rajaji Hospital (GRH), Madurai.	121.80	173.44	295.24
1.1.2	Kilpauk Medical College Hospital (KMCH), Chennai.	135.50	134.18	269.68
1.1.3	Coimbatore Medical College Hospital (CMCH), Coimbatore.	110.90	189.79	300.69
	Total	368.20	497.41	865.61

The construction of the above three tertiary hospitals are ongoing since March 2021 after signing of the building construction contracts.

16.3.2 Strengthening Referral Hospitals (Equipment - Rs.201.07 crore): It is proposed to provide equipment for Radiology in Imaging Department with CT, Mammography etc, and Endoscopy centre with Gastro-fiberscope, Duodenoscopes, Operating Microscope, Ultrasound scan, C-arm machine, X-ray machine, etc in eleven Government Medical College Hospitals at Salem, Vellore, Thanjavur, Tirunelveli, Tiruchirapalli, Pudukkotai, Thoothukudi, Kanyakumari, Dindigul, Krishnagiri and Tiruppur and also it is proposed to provide equipment for three District Headquarters Hospitals at Erode, Cuddalore and Periyakulam such as CT scan, Digital Fluoroscopy, Endoscopy, Gastro-fiberscope for Imaging department and C-arm, X-ray unit, Anaesthesia work station etc. for operation theatre at a total cost of **Rs.201.07 crore**.

S. No.	Medical College Hospital	Total value of the equipment (Rs. in crore)
1.	Vellore Medical College Hospital, Vellore	20.01

2.	Tirunelveli Medical College Hospital, Tirunelveli	18.95
3.	Kanniyakumari Medical College Hospital, Asaripallam, Nagercoil	14.34
4.	Salem M.K.M Medical College Hospital, Salem	21.98
5.	Thoothukudi Medical College Hospital, Thoothukudi	12.63
6.	Mahatma Gandhi Memorial Hospital attached to Government KAPV Medical College Hospital, Tiruchirapalli	22.55
7.	Thanjavur Medical College Hospital, Thanjavur	27.01
8.	Pudukottai Medical College Hospital, Pudukottai	8.72
9.	Dindigul Medical College Hospital, Dindigul	4.28
10.	Krishnagiri Medical College Hospital, Krishnagiri	4.09
11.	Tiruppur Medical College Hospital, Tiruppur	4.00
	Total	158.56

Sl. No	District Headquarters Hospital	Total value of the equipment (Rs. in crore)
1.	Erode	4.84

2.	Periyakulam	2.09
3.	Cuddalore	4.73
	Total	11.66
	Total Cost of Equipments for 14 Project Hospitals under component 2	170.23
	Advertisement Cost	0.20
	GST @ 18%	30.64
	Total	201.07

As on 28.08.2021 equipment at a cost of Rs.125 crore has been provided to the project hospitals.

16.3.3 Strengthening Secondary Care Hospitals (Infrastructure Rs.109.50 crore and equipment Rs.51.44 crore): It is proposed to provide hospital buildings comprising In-patient wards, OT block, Outpatient department for General Medicine and Surgery, Obstetrics and Gynaecology, Paediatrics, Ear, Nose, Throat and Ophthalmology, Comprehensive Emergency Obstetric and Newborn Care (CEmONC) centre and Sick Newborn Care Unit (SNCU), Casualty Department, etc at a cost of **Rs.109.50 crore**. It is proposed to provide beds, infusion stands in in-patient wards, operation tables Anaesthesia machine in operation theatre, dental units in outpatient department, Cardiotocography, Radiant Warmer, Ventilator in SNCU and

CeMOC, defibrillator in casualty department, digital X-ray machine, Computed Radiography in Imaging Department at a cost of **Rs.51.44 crore** to the Secondary Care Hospitals at Avadi in Chennai, Ammapettai in Salem, Velampalayam in Tiruppur and Kandiyaperi in Tirunelveli.

Component	Hospital	Buildings Detailed Cost Estimate in crore	Equipment cost as per DPR in INR crore Tenders will be called for and procured	Total cost in crore
3.1.1	Government Hospital Avadi, Thiruvallur	26.90	12.86	39.76
3.1.2	Government Hospital Velampalayam, Tiruppur	27.00	12.86	39.86
3.1.3	Government Hospital Ammapet, Salem	26.70	12.86	39.56
3.1.4	Government Hospital Kandiyaperi, Tirunelveli	28.90	12.86	41.76
	Total	109.50	51.44	160.94

Contract agreement for construction of multi-storied buildings signed on 19.04.2021 and Construction work is in progress.

16.3.4 Strengthening Hospital Management (Rs.8.30 crore): It is proposed to provide training at a cost of Rs.8.30 crore to Medical Officers, Staff Nurse, Pharmacist, Lab. Technicians and Ministerial Staff from the project hospitals and Primary Health Centres from project cities. The following trainings are proposed:

- i) Hospital Management – Anna Institute of Management.
- ii) Equipment maintenance – Central Scientific Instrument Organization.
- iii) Non-Communicable Diseases namely Hypertension, Diabetes and Cancers – National Health Mission.
- iv) Trauma Care Management – Tamil Nadu Accident and Emergency Initiative (TAEI) Wing of National Health Mission.

16.3.5 Strengthening Primary Health Care: It is proposed to provide equipment to Institute of Public Health at Poonamallee and Health and Family Welfare Training Centre at Madurai at a cost of

Rs.2.98 crore. Tamil Nadu Medical Services Corporation is procuring the equipment.

Proposed outcomes of the Project are

- The Number of catheter based operations will be increased.
- The Number of highly advanced surgeries will be increased.
- Additional courses in super speciality in PG in three hospitals will be started.
- Number of Specialist and Super Specialists will be increased.
- The Number of high end tests will be increased.
- Number of dialysis procedures will be increased.
- Bed Occupancy Rate will be increased.
- Quality Certification for all 21 Hospitals will be obtained.
- Number of Health care providers will be increased.
- Patients Satisfaction levels will be better.
- Staff Motivation and satisfaction will be improved.

Chapter – 17

TAMIL NADU HEALTH SYSTEM REFORM PROGRAM

17.1 Project Profile: The Government of Tamil Nadu is implementing the World Bank supported Tamil Nadu Health System Reform Program (TNHSRP) to improve the health system. This is being implemented as a Program for Results (P for R) mode which is a reimbursement model based on the achievement of pre- determined health outcomes.

17.2 The total project cost is INR 2857 crore (USD 410 million). Out of this INR 1999.90 crore (USD 287 million) is funded by World Bank under this program (TNHSRP) and Government of Tamil Nadu is additionally investing INR 857.10 crore (USD 123 million). The project period is for 5 years. This program also aims to achieve Sustainable Developmental Goal – 3 (Ensure healthy lives and promote wellbeing for all at all ages) over a period of 5 years.

17.3 The Goal of the Project is to:

- Improve quality of care
- Strengthen management of non-communicable diseases and injuries

- Reduce inequities in reproductive and child health services in Tamil Nadu.

17.4 Quality of Care: The uneven quality of services in the primary, secondary and tertiary care institutions will be addressed with financial and technical inputs for

- Health facility accreditation,
- Bio medical waste management,
- Development of quality of care strategy for the state health institutions,
- Introduction of Quality Improvement Initiatives,
- Use of clinical decision support tools,
- Expanded and improved Continuous Medical Education (CME) programmes,
- Improved monitoring and measurement of quality of care using quality dashboards, patient experience questionnaire, etc.,

Expected outcome:

1. Increased number of public facilities with quality certification.
2. Improved score in quality dashboard for public health facilities.

17.5 Non Communicable Diseases (NCD) and Injuries:

17.5.1 Addressing the growing burden of Non Communicable Diseases by supporting the already ongoing NCD program with additional inputs such as:

- Drugs and Equipments
- Establishment of Health and Wellness Hubs in 20 PHCs.
- Social and Behavior Change Communication (SBCC) strategies.
- Performance based incentives to primary health facilities.
- Training of health care providers and front line workers.
- Development of NCD care cascades.
- Increased Population based NCD screening efforts.
- Strengthening of laboratory services.

Expected outcome:

1. Increased screening of breast cancer and cervical cancer among the women in the state,

2. Increased proportion of patient with hypertension and diabetes under control, and
3. Decrease in the number of patients going for complications such as stroke, myocardial infarctions and chronic kidney failures.

17.5.2 Addressing the high mortality from traffic accidents and injuries through

- Establishment of Emergency Department
- Training of Health care providers
- Strengthening of Emergency Ambulance Services system
- Establishment of suicide hotline

Expected outcome: Decrease in the number of deaths and complications due to road traffic accidents and injuries due to better managed pre hospital, intra hospital and post hospital care.

17.5.3 Addressing the increased suicide deaths in the state by establishment of suicide hot line and training of health care providers on early identification and treatment of mental health illnesses through a mental health capacity building plan.

Expected outcome:

- i) Decrease in the number of suicides in the state
- ii) Better managed mental illnesses.

17.6 Reproductive and Child Health Services

(RCH): Inter district disparity of Reproductive and Child Health Services (RCH) is to be addressed through

1. Strengthening of ANC services, immunization and contraceptive services by IEC activities and training of health care providers especially in nine priority districts of Ariyalur, Dharmapuri, Ramanathapuram, Theni, Thoothukkudi, Tirunelveli, Nilgris, Tiruvannamalai and Virudunagar.
2. Provision of financial and technical inputs for RCH Constraint study.

Expected outcome: Increased use of RCH services in the state especially in the priority districts and decrease in the maternal and infant mortality and morbidity rates.

17.7 Cross Cutting

17.7.1 HMIS: Strengthening of data systems in the health sector in Tamil Nadu by, provision of financial and technical inputs to the already ongoing

HMIS and Electronic Medical Records program by the Tamil Nadu State Health Society of National Health Mission.

Expected outcome: The health sector will be benefited by the better data driven and evidence based decision making and course corrections.

17.7.2 Health Assembly: Addressing the issue of Inadequate Citizen Engagement through, conducting of district and state Health Assemblies each year, in the state.

Expected outcome: Conducting of Health Assemblies in the District and State is expected to bring in transparency & accountability of the system and participation of the community in the decision making by the better informed and empowered communities in the districts.

17.7.3 Policies and Strategies: Policies and strategies for the health sector developed by the project such as State Health Policy, Quality of care Strategy, NCD Strategy, HMIS Policy, Environmental Strategy for the state, Tan Quest, etc.,.

Expected outcome: Better Human Resource Capacity on various activities of health sector such

as, Trauma Care, NCD, Mental Health, Quality of Care and Health Administration.

17.8 Disbursement: The programme has obtained a disbursement of INR 362.50 crore which is more than the anticipated disbursement of INR 347.7 crore during the year 2019-20. The project has carried out most of the activities of year II in spite of Covid-19 pandemic during the year 2020-21 and is expected to achieve a disbursement of INR 39.88 crore.

Year 1 Disbursement Achieved

Sl. No.	Activities	Amount Claimed (Rs. in crore)
1.	Accreditation of Health facilities - Prior Results (7 Secondary care institutions & 8 Primary care institutions)	11.02
2.	Accreditation of Health facilities (11 Secondary care institutions & 22 Primary care institutions)	17.75
3.	Gap analysis & Facility Improvement plan for NQAS & NABH Accreditation	49.65
4.	Establishment of Trauma Registry	7.21

5.	Protocols for requesting IFTs development & existing IFTs	6.97
6.	Conceptual model & Operational model for strengthened HMIS	41.81
7.	Quality of care strategy development	27.87
8.	TN NCD Strategy development	27.87
9.	TN Health Policy/Strategy for Vision 2030 development	27.87
10.	Updated Policy for CME Program development	20.90
11.	Guidelines on district & State Health Assembly development	27.87
12.	Quality scorecard for health facilities development	48.78
13.	STEPS Survey implementation	34.74
14.	Operational research program development	12.19
	Total amount claimed	362.50

Anticipated Year 2 Disbursement

S. No.	Activity	Amount (Rs. in crore)
1.	Development & adoption of environmental strategy	13.93

2.	e-procurement system deployed in TNMSC and 20% of value of total contracts of TNMSC under the Program done through e-procurement	20.90
3.	Accreditation of Health facilities	5.05
	Total	39.88

17.9 Significant Achievements

S. No.	Activities	Outcomes	Cost (Rs. in crore)
1	Procurement of Ambulance	635 Ambulances	133.50
2	Preparation for NQAS accreditation	71 PHCs, 34 Secondary care Institutions	40.06
3	Govt. Rehabilitation Centre, K K Nagar	Building & Equipment	40.00
4	Upgradation and Strengthening of Trauma Care Centres	36 Medical College Hospitals (+2 attached institutions) 4 Secondary care Institutions	27.85
5	Health & Wellness Hub	120 PHCs	11.00
6	Establishment of Emergency Department	25 Medical College Hospitals	10.97

7	Non Communicable Disease Drugs	2266 PHCs, 320 Secondary care Institutions 24 Medical College Hospitals	10.07
8	Non Communicable Disease Reagents	2266 PHCs, 320 Secondary care Institutions 24 Medical College Hospitals	8.70
9	Non Communicable Disease Equipment	2343 PHCs 37 Secondary care Institutions 24 Medical College Hospitals	6.90
10	STEPS Surevy	NCD Survey across the state	1.64
11	Operational Research	Awarding of 7 operational research proposals are to be carried out	1.00
12	Gap analysis for NQAS accreditation	365 PHCs, 95 Secondary care Institutions 10 Medical College Hospitals	0.93
13	Establishment of suicide Hotline by strengthening 104 helpline	20 psychologists have been recruited	0.83

14	IEC Activities	101 PHCs, 54 Secondary care Institutions	0.26
15	Establishment of trauma and Emergency surveillance centres	13 Medical College Hospitals	0.23
16	Piloting of Trauma Registry	Vellore Medical College & Ambur GH	0.13
Total			294.07

Chapter – 18

TAMIL NADU MEDICAL SERVICES CORPORATION LIMITED

18.1 With the vision of streamlining the activities related to procurement and distribution of drugs, medicine, surgical & suture consumable through a centralized system for the first time in India, the Tamil Nadu Medical Services Corporation (TNMSC) was established in 1994 as a company fully owned by the Government of Tamil Nadu under Companies Act. In the last 27 years, the system adopted by TNMSC has become a proven model in the drug logistics and won appreciation worldwide and attracted the attention of the other States in the Country to replicate. It is an ISO 9001: 2015 certified organization.

The following are the major activities of TNMSC:-

- Procurement, testing, storage and distribution of both generic and speciality Drugs and Medicines, Surgical and Suture consumables to all the Government medical Institutions and other health facilities including veterinary institutions.

- Procurement of medical equipment and its maintenance at Government health facilities.
- Operation and maintenance of advanced diagnostic equipment like CT, MRI and Lithotripsy on user charges collection basis and the other equipment like Cobalt therapy, Linear Accelerator and Brachytherapy out of revenue generated under CMCHIS.
- Extending logistic support in operation and maintenance of pay wards in Government Hospitals.
- Finalization of rate contract for housekeeping and security services, diet supply, disposal of biomedical waste, supply of oxygen and laboratory services for Government health facilities.

18.2 Organisational Structure:The Tamil Nadu Medical Services Corporation Limited is headed by the Managing Director with 3 major domains viz Drugs, Equipment and Services. The members of the Board of Directors of TNMSC are Additional Secretary, Finance Department, Managing Director of TNMSC, Project Director-NHM, Director of Medical Education, Director of Medical and Rural Health Services, Director of Public Health

&Preventive Medicine, Director of Drugs Control, Chief Engineer, PWD (Buildings) chaired by the Principal Secretary to Government, Health and Family Welfare Department.

18.3 Procurement and Distribution of Drugs & Equipment:The list of essential drugs, speciality drugs, surgical & suture consumables and anti-haemophilic drugs are finalized annually based on the average annual consumption pattern of the last 3 years derived using the IT mechanism and finalized by a committee of the Directors of the Medical Education, Medical and Rural Health Services, Public Health and Preventive Medicine, Family Welfare, Drugs Control besides specialists from the government medical institutions prior to floating of tenders.All categories of drugs, medicines and surgical consumables are finalised through open tenders by following the Tamil Nadu Transparency in Tenders Act and Rules by fixing annual/biannual rate contract at the most competitive rates. Presently 326 essential drugs, 366 surgical consumables and sutures and 517 speciality drugs are procured by this Corporation for use of medical institutions.The procurement and stocking of drugs and medicines at 32 drug warehouses,one at each district are on dynamic mode, depending on the consumption pattern with

a minimum of 3 months stock and distributing the same to the government medical institutions under passbook system as per the fund allocation made by the Directorates. The Corporation also procures 225 veterinary drugs annually for the Animal Husbandry Department and distributes to the Regional Joint Directorates. The procurement of equipment are against specific indents based on Government orders either with State or with NHM funds. TNMSC also procures equipment for externally aided projects such as World Bank, JICA as per their procedures.

18.4 Quality Assurance: The Corporation relies on post-shipment testing of every batch of the drug supplies. For every batch of drug and medicines, samples are taken from the warehouses and a common batch is drawn at random from the samples at head office and the identity are camouflaged, assigned with separate unique code and sent to the empanelled NABL laboratories (National Accreditation Board for Testing and Calibration Laboratories). Only the drugs passed in the quality test are issued to the institutions. Periodic retesting of quality passed drugs both at warehouse end and at institutions are also part of the testing procedure to ensure quality of drugs.

18.5 Service activities: To ensure advanced diagnostic and treatment facilities to common public, TNMSC is operating state of the art CT scanners, MRI scanners, Lithotripsy machines in the Government hospitals at a minimal user charge collection basis and on cashless mode for CMCHIS beneficiaries. Treatment in Cobalt therapy machines and Linear Accelerator machines in the government hospitals are managed by the Corporation with revenue earned from CMCHIS reimbursement.

Scan Centres: TNMSC operates 116 CT scanners in 87 centres, 33 MRI scanners in 32 centres and 6 more MRI Scanners under PPP mode in 6 centres. To ensure quick reporting of scans taken at remote centres in government medical institutions, Tele-radiology services is also in operation. Further four Lithotripsy machines in 4 centres are also operated under user charge collection basis. There are 2 PET-CT scanners operated through PPP mode.

Radiotherapy Centres: The operation and maintenance of 9 Linear Accelerators in 9 centres and 15 new Cobalt Therapy units in 14 centres and 7 Brachytherapy units in 7 centres under CMCHIS revenue are being entrusted to the Corporation.

Maintenance Services:The annual maintenance services of all the medical equipment in government medical institutions are taken care through respective suppliers and the field biomedical engineers and the payments are made to the agencies by the Corporation. Equipment Maintenance and Management System (EMMS), a web application software is in use for this purpose.

18.6 Logistics support to paywards:TNMSC acts as custodian of funds & extends necessary logistical support to the payward at GI Bleed and Hepato-biliary Centre in Government Stanley hospital, Chennai, maternity wards at the Institute of Obstetrics and Gynaecology, Kasturba Gandhi Hospital in Chennai and paywards at Rajiv Gandhi Govt. General Hospital, Chennai for providing the best services to the general public at subsidized rates.

18.7 Procurement for COVID-19: TNMSC is entrusted with the responsibility to procure drugs, medical equipment and consumables for tackling COVID-19 on war footing basis under section-16(a) of the Tamil Nadu Transparency in Tenders Act, 1998. Details of the activities under this head are included in the chapter on COVID management.

Chapter - 19

TAMIL NADU STATE AIDS CONTROL SOCIETY

19.1 For prevention and control of Human Immuno-deficiency Virus (HIV) infection and Acquired Immuno-Deficiency Syndrome (AIDS) in India, the first National AIDS Control Programme (NACP) was launched in 1992. With the evolving trends of the HIV/AIDS epidemic, the focus shifted from raising HIV/AIDS awareness to behavior change, from a national response to a more decentralized response and to increasing involvement of NGOs and networks of people living with HIV (PLHIV), and the subsequent phases of NACP were launched and implemented.

19.2 TANSACS is the nodal agency for the state of Tami Nadu to implement the prevention to care continuum of the National AIDS Control Program (NACP). The various services provided by TANSACS facilities across the state are:

- a) HIV counselling and testing services to general public, ante-natal mothers and people belonging to high risk groups (HRGs - female sex workers, men who have sex with men, transgender, Injecting drug users)

- b) Counselling, testing and treatment services for sexually transmitted infections for general public, people living with HIV, AN mothers and HRGs.
- c) Elimination of mother to Child transmission of HIV through, counselling, testing and treatment follow-up services to ante-natal mothers.
- d) Care, support and treatment services to 1.20 lakh people living with HIV/AIDS.
- e) Prevention of STI and HIV among the High risk groups and bridge populations (migrants and truckers) through NGO / CBO involvement.
- f) Blood transfusion services through 94 Government blood banks.
- g) Referral and linkage of PLHIV, HRGs to the various Government sponsored social welfare and social entitlement schemes.
- h) Information, education and communication about STI, and HIV among the general population and the target population

The Tamil Nadu State AIDS Control Society constituted on 22.04.1994 is implementing HIV/AIDS control and prevention activities as per the guidelines of National AIDS Control Program

(NACP) funded by NACO. The district level program of Tamil Nadu State AIDS Control Society (TANSACS) is implemented and monitored by the respective District AIDS Prevention Control Units (DAPCU).

19.3 Structure and functioning of TANSACS

- TANSACS manages the HIV/AIDS prevention-to-care continuum of services through its wide network of 780 Integrated Counseling and Testing Centres (ICTC), 2,155 Facilities Integrated Counseling and Testing Centres (FICTC), 16 Mobile ICTC, 777 Designated STI/RTI Clinics (DSRCs), 55 Anti-Retroviral Therapy (ART) centres and 174 Link ART centres, 85 Targeted Intervention (TI) Projects and 15 Link Workers Scheme (LWS).
- The Government is committed to provide Life-long free Care, Support and Treatment services to HIV Positive people. Around 1,20,000 PLHIV are taking free treatment through 55 ART centers. In addition, 174 Link ART centres act as drug dispensing units closer to their homes. Special focus is being given to bring 'Zero' new infection through parent to child transmission mode in

the state through sustained awareness and prevention strategies among the antenatal mothers and the general public.

19.4 Prevention of New Infection

19.4.1 Integrated Counseling and Testing Centres (ICTC):

- HIV counseling and testing services have been provided to 23,80,721 General Clients and 12,80,342 Antenatal Mothers (ANC) during April 2020 to March 2021.
- HIV counseling and testing services are provided through 2,962 centers located at various health care facilities in the state. The other services are as mentioned below:-
 - ✓ 377 Stand Alone ICTC's (SA-ICTC) & 16 Mobile ICTCs in Medical College Hospitals, District Head Quarters Hospitals and Government Hospitals, with the support of NACO.
 - ✓ 403 SA-ICTC's, 1,876 Facility Integrated ICTC's and testing services are functioning under National Health Mission.
 - ✓ 188 ICTCs are functioning under Public Private Partnership (PPP) model of

TANSACS. In addition, 102 Counseling and testing facilities have been established with the help of NGOs and CBOs for Community Based Screening (CBS).

19.4.2 Elimination of Mother to Child transmission of HIV & Syphilis (EMTCT)

- The Government of Tamil Nadu is committed to eliminate HIV and Syphilis amongst newborns through universal screening of pregnant women for HIV and Syphilis as an essential component of the ANC service package. The extending services of Counselling in scale up prevention and care interventions among Ante-natal mothers through primary prevention, family planning, voluntary counseling and testing, lifelong Anti-Retroviral Therapy (ART) services and counseling on infant feeding practices, are being provided.
- “Early Infant Diagnosis (EID)” programme is implemented in the State through ICTCs.
- Under EMTCT regimen (ARV prophylaxis), HIV exposed babies who are born to HIV positive mothers are initiated on Nevirapine / Zidovudine syrup up to 6 or 12 weeks from

birth. All identified HIV positive mothers and infected infants are being provided with lifelong ART and follow-up counseling services.

19.5 Sexually Transmitted Infection/Reproductive Tract Infection (STI/RTI) Services:

19.5.1 Designated STI / RTI clinics (DSRC)

- TANSACS established 777 DSRCs in selected GHQH, Medical Colleges & GHs as Suga Vazhvu Maiyam.
- It follows Syndromic Case Management System through colour coded drugs and all outpatient attendees are screened for Syphilis and HIV. All Antenatal Mothers are screened for Syphilis to achieve EMTCT.
- Once in three months, all High Risk Groups are screened for STI and they are tested for syphilis.
- After testing the symptoms of STI, if needed colour coded STI drugs are being given by the trained Medical Officers. In addition to that, the services of counseling on STI/RTI and HIV-transmission, Prevention, Partner Treatment, Risk Reduction and Condom

Promotion, are given by trained STI Counsellor.

19.6 Targeted intervention:

Targeted Interventions for High Risk Groups:

The main objective of Targeted Interventions (TI) is to enhance accessibility of high risk groups to key HIV prevention services and improve their health seeking behavior, thereby reducing their vulnerability and risk to acquire Sexually Transmitted Infections (STI) and change communication, condom promotion and clean needle and syringe for people who injected drugs, STI care, referrals for HIV and Syphilis testing and linkages with Anti-Retroviral Treatment. Revised migrant strategy for HIV has been rolled out. Targeted Interventions provide HIV prevention services to migrants at the destination points through outreach and linkages. In order to address the vulnerability among returnee migrants and spouses of migrants, awareness campaigns and health camps are implemented in the source village as well as at the major transit points that account for bulk of migration. Employer – led models and migrant tracking system are also being piloted.

- The Targeted Intervention (TI) is being implemented through the Non-Governmental

Organization (NGOs)/Community Based Organization (CBOs), with a view to bring behavioral changes among high risk groups (HRGs) namely Female Sex Workers (FSW), Men who have Sex with Men (MSM), Injecting Drug Users (IDU) Truckers, Migrants and Transgender (TG) in the state, who are at a risk of contracting HIV infection.

- As on April 2021, 85 NGOs/CBOs are functioning and services are provided to 83,681 HRG populations (FSW-45,367, MSM-32,310, TG-5,607, IDU- 397), Migrant-59,883 and Truckers-51,569.

19.6.1 Community Based HIV Screening

- Community Based Screening (CBS) for HIV is implemented for achieving the global policy of ending HIV/AIDS by 2030. NACO and TANSACS have decided to conduct CBS through TI NGOs/ CBOs and LWS NGOs.
- In continuation, the TI projects are doing Community Based Screening for HIV, and 83797-TI HRG & bridge population were tested, and among them 69 HIV positives were identified and they are linked with ART for Care, support & treatment.

19.6.2 Link Workers Scheme

This community-based intervention addresses HIV prevention and care needs of the high risk and vulnerable groups in rural areas by providing information on HIV, condom promotion and distribution and referrals to counseling, testing and STI services through Link workers.

- Link Workers Scheme (LWS) is being implemented in 15 high priority districts to prevent STI / HIV / AIDS and TB. It also aims at providing prevention-to-care continuum of services to rural based High Risk Groups, Vulnerable and Bridge populations (Truckers/Migrants).
- Currently 15 LWS programmes are functional and each LWS project is working in 100 high prevalence villages in their respective districts. Through the LWS Projects, 9,103 HRGs, 44,374 Migrants, 62,255 Vulnerable groups and 16,450 Truckers are covered and provided with HIV/AIDS and TB services. 71,801 Targeted communities were tested for HIV and 69 were identified as HIV positive and linked with ART centre.

19.6.3 Condom Promotion

- As condoms are the most effective tool for prevention of HIV and STI infection among high risk and general population, TANSACS provided 85,51,401 free condoms during April 2020 to March 2021 through STI clinics, ICTC, ART Centres and other outreach programmes implemented by NGOs/CBOs under Targeted Interventions and Link Workers Scheme.

19.6.4 HIV & TB intervention in all type of Prisons Swadhar and Ujjawala homes in Tamil Nadu.

- Tamil Nadu State AIDS Control Society has entered into an MoU on September 2018 with Prison Department and Social Welfare Department for implementing the HIV & TB intervention in Prisons, Swadhar and Ujjawala homes to provide HIV, TB, STI, Viral hepatitis infection related services (Awareness, IEC, Training, Counseling, Screening, Testing, Care, Treatment, Referral and Linkage).
- Under this programme, 35,684 prison inmates were tested for HIV and among them, 55 identified as HIV positive and 52 of

them were linked with ART. 34,131 inmates screened for TB and 8 of them were diagnosed as TB positive and are getting treatment.

19.7 Blood Safety:

- In order to meet out the requirements of Blood and Blood Components for the needy patients, 316 Blood Banks (94 State Government Blood Banks, 10 Central Government Blood Banks including 3 ESI Hospital Blood Banks and 212 Private Blood Banks) are functioning in Tamil Nadu. In addition to the Blood Banks 548 Blood Storage Centres (Government 393 and Private 155) are also functioning to provide adequate, safe and quality blood and blood components. In all the Government Hospital Blood Banks, total collection of blood is 2,74,755 units through 2,228 Voluntary Blood donation (VBD) camps in the during 2020-21. Voluntary non-remunerative Blood Donation camps are organized throughout the state as per the annual VBD calendar. Out of 94 Government Blood Banks, 39 Government Blood Banks are functioning as Blood Component Separation Units (BCSU).

- All collected blood units are tested for 5 Transfusion Transmissible Infections (TTI) such as HIV, HBV, HCV, Syphilis and Malaria apart from grouping and typing. the ELISA (Enzyme Linked Immunosorbent Assay) and the Rapid card method tests are followed for HIV detection in the Government Blood Banks using the kits supplied by NACO.
- The Quality of screening and Lab services are ensured in all the blood banks via three ways namely, External Quality Assurance Services (EQAS), Internal Quality checking every month and by Vertical Audit of Blood Bank.
- The stock, the collection and therapeutic utilization of blood and blood components in the Government Blood Banks is monitored on daily basis with the Supply chain Management Software (SCM).

19.8 Greater Involvement for the People Living with HIV/AIDS-GIPA: TANSACS has involved the People Living with HIV / AIDS (PLHIVs) and Community Based Organizations (CBOs) as one of the partner in implementing the program at the

district level and the same is also being monitored by them, as follows:

- Ensuring service delivery at the grass root level.
- Planning the program related to care and support activities at the district level involving PLHIV.

19.9 Hello + Helpline 1800 419 1800:-

- TANSACS has set up a dedicated help line to clear the doubts, to provide the required information about the District-wise Service Centres (ICTC, STI and ART Centres), in addition to that, to clear the misconceptions pertaining to HIV/AIDS & STI.

19.10 Legal Aid Clinic (LAC):

- In association with Tamil Nadu State Legal Services Authority (TNSLSA), Legal Aid Clinics (LAC) have been established in all districts.
- Senior ART counselors attend the legal and non-legal issues of People Living with HIV/AIDS (PLHIV) and High Risk Groups (HRGs).

19.11 Red Ribbon Club (RRC):

- As a pioneer in the nation, TANSACS established Red Ribbon Clubs (RRC) in the year 2005 to create awareness and to bring in behavioral changes among the youth groups.
- There are 2,229 Red Ribbon Clubs functioning in Arts and Science, Polytechnic, Engineering, Medical, B.Ed colleges and Teacher Training Institutions in the State.

19.12 Adolescent Education Program (AEP) in the name of Life Skill Education Program in Schools (LSEP):

- This programme aims at providing information on Life Skills and Knowledge on prevention of HIV/AIDS in 9,580 schools among the 9th and 11th Students in Tamil Nadu. It is implemented through State Council of Educational Research and Training (SCERT).

19.13 Integrating Social Benefits:

- The Government of Tamil Nadu has established Tamil Nadu Trust for Children Affected by AIDS, in view of the welfare of the Orphan and Vulnerable Children infected

and affected by HIV/AIDS during the financial year 2009-10. Tamil Nadu Government has so far provided funds of Rs.25 crores as a corpus fund and it is deposited in Tamil Nadu Power Finance Corporation Limited and from the accumulated interest, financial assistances are being paid to the Orphan and Vulnerable Children annually to support for their nutritional and educational needs.

- Free bus passes are issued to PLHIVs to attend ART centres every month.
- Top priority is given to PLHIVs to access the various schemes of Tamil Nadu Government as furnished below:
 - i. Widow Pension
 - ii. Old Age Pension Schemes
 - iii. Antyodaya Anna Yojana (AAY) Scheme
 - iv. Hon'ble Chief Minister's Solar Powered Green House Scheme.

19.14 Care, Support and Treatment:

- Life-long free Care, Support and Treatment services to HIV Positive people is provided

through ART centers attached to government health facilities.

- Routine investigations, CD4 tests and viral load testing are performed at these centres. ARV drugs, opportunistic infection drugs, various counseling services, referral and linkage services are rendered through ART centres. In addition, willing PLHIVs are also linked with yoga and life style modification sessions.
- Currently, around 1,20,000 PLHIV are taking free treatment through 55 ART centers. In addition, 174 Link ART centres act as drug dispensing units closer to their homes.
- Apart from this, 30 Care and Support Centres provide services like tracking of treatment defaulters, psycho-social support and linkage to various benefit schemes.

19.15 Monitoring and Evaluation:

a) PLHIV – ART Linkage System (PALS):

- PALS line list is a reporting cum tracking tool which collects, retains and updates individual wise details of all HIV Positive clients (Pregnant women & General clients) and the same are registered and

maintained in each SA-ICTC and ART centre which will contain their treatment particulars etc.

b) HIV Sentinel Surveillance (HSS):

- HIV Sentinel Surveillance (HSS) is carried out biennially all over the country to study the disease prevalence among pregnant women and High Risk Groups (HRGs).
- In Tamil Nadu for the year 2020-21, the prisons were newly included in the HIV Sentinel Surveillance.
- HSS is being conducted at 84 ANC sites, 3 prison sites and 43 HRG sites and carried out from 1st February 2021.
- The Prevalence of HIV among the antenatal mothers is reduced from 0.83 in 2003 to 0.18 in 2019 through the services of TANSACS.

19.16 District AIDS Prevention and Control Unit (DAPCU):

- The DAPCUs are managed by the Deputy Director – Health Services who act as District AIDS control Officer and work in close coordination with the District Collector.

- Out of 29 integrated DAPCUs in Tamil Nadu, NACO is supporting financial assistance to 27 DAPCUs, and the remaining two DAPCUs in Ariyalur and Tiruppur districts are being supported by State Government funds.

19.17 Drop in Centers:Government have revived the Drop-in-Centre services and TANSACS permitted to establish 34 Drop In Centers in 32 districts (3 in Chennai). The Drop-In-Centres aims at

- Providing sustainable counseling and support services
- Organizing support group meetings
- Conducting awareness programs on HIV / AIDS with positive speakers.
- Providing psychosocial support to PLHIVs
- Linkage with care and support service providers
- Linkage with government schemes
- Creating an enabling environment for obtaining services from government and private institution.

Chapter -20

TAMIL NADU STATE BLINDNESS CONTROL SOCIETY

20.1 The Government of India, in order to reduce the prevention of preventable blindness from 1.4% to 0.3% among population, launched the National Programme for Control of Blindness (NPCB) in the year, 1976 as a 100% centrally sponsored programme. Tamil Nadu State Blindness Control Society (TNSBCS) was formed on 01.04.1996 as a separate entity to give thrust to the goal by planning, execution and monitoring at the district level.

20.2 The TNSBCS is a registered body and is headed by a senior ophthalmologist as Project Director who is also the State Programme Officer NPCB. In Tamil Nadu there are 32 District Blindness Control Societies (DBCS) and the District Collector is the Chair person for the DBCS. This programme is executed at the District level by District Project Manager (DPM), a senior ophthalmologist from the District Head Quarters Hospital.

20.3 The cataract being the main reason for avoidable blindness, accounts for more than 60% of blindness. Under NPCB, the cataract operations

are done at free of cost both in Government Hospitals and Private Hospitals and a grant-in-aid of Rs.2,000/- per operation is allowed to the NGOs. The Regional Institute of Ophthalmology, 34 Government Medical College and Hospitals, 32 Government Taluk Hospitals, 32 Tele V Care Centers and 20 Eye Banks are functional in our state. We undertake 2,50,000 Cataract IOL surgeries every year.

20.4 Achievements during 2021:

- Mobile ophthalmic units are established at Ramanathapuram, Salem and Tiruvallur districts for Rs.90.00 lakh.
- New eye operation theatre and eye wards are constructed in Government Hospitals at Kancheepuram, Tenkasi, Sirkazhi, Aruppukottai and Cheyyar at a cost of Rs.300.00 lakh.
- New ophthalmic equipment have been supplied to Government Hospitals at Perambalur, Kallakurichi, Manapparai, Ponneri, Tindivanam, Arni, Ulundurpet and Aranthangi Government District Hospitals and a new eye Bank has been started at Virudhunagar Medical College Hospital at a total cost of Rs.245.00 lakh.

- Eye screening equipment has been provided to 210 Block PHCs at a total cost of Rs.68.25 lakh through Tamil Nadu Medical Services Corporation.
- In order to create awareness about eye donation, Diabetic Retinopathy, Glaucoma, Cataract, vitamin A deficiency etc., Continuing Medical Education for Doctors and para medical staff, supply of IEC materials, conduct of, a sum of Rupees Rs.10.00 Lakh has been spent.

20.5 In our state, we have an online registry for eye donors <https://hmis.tn.gov.in/eye-donor/> and last year we have got 6640 eye donation pledges and through our eye banks we collect about 10,000 eyeballs every year.

Chapter - 21

COMPREHENSIVE EMERGENCY OBSTETRICS AND NEWBORN CARE CENTRES

21.1 Tamil Nadu is the only State having 65 percent of institutional deliveries occurring in Government health facilities. Also, analysis of Government institutional delivery data shows there is a clear shift of mother's preference towards higher facility with 24x7 Lower Segment Caesarian Section (LSCS), Blood bank, Special Newborn Care Unit (SNCU) services which ensures safe delivery and care of the New born. Having this fore thought, Government of Tamil Nadu has established 126 Comprehensive Emergency Obstetrics and Newborn Care (CEmONC) centers in Medical College Hospitals, District Headquarters Hospitals and well performing Taluk / Non-taluk Hospitals through Tamil Nadu Health Systems Project (TNHSP), to extend its support to the Health Policy of 2003 and focused on improving the health status of people belonging to the lower socio-economic strategy in management of emergency obstetric and newborn care. Strengthening of the CEmONC centers with additional infrastructure, Human Resources, Equipment and Blood Bank facilities has resulted in reduction of maternal mortality

rate. National Health Mission plays a key role in support of CEmONC centers by allocating funds to District Hospitals and for upgrading CEmONC services in Medical College Hospitals to a sum of Rs.42 crore in the year 2021-22. CEmONC operational cost is provided to these institutions, which helps to meet out any contingency in the upkeep of equipment, consumables, essential drugs, etc. This is evidenced by lowest Out-of-pocket Expenditure for normal deliveries in Public Health facilities among all States in India as per NSSO 71st Survey.

CEmONC Performance 2020-21

Sl. No	Details	Beneficiaries
1	Total Maternal Admission	6,07,864
2	Deliveries	4,08,042
3	LSCS	2,08,659
4	Blood Transfusion for OG cases	1,15,525
5	Scan for OG Cases	5,89,504
6	Neonatal Admissions	1,20,478

21.2 'LaQshya' initiative has been taken up at all levels of care to improve the quality and standard of care in labour wards and in operation theatres. This

initiative improves the quality of care for delivering mothers and further reduces maternal deaths. Modified Emergency Obstetric Warning System (MEOWS) has been introduced in Government Hospitals for early definitive management or timely referral to higher centre. This reduces the delay in referral of pregnant women thereby reducing maternal deaths

21.3 CEmONC interventions include safe blood transfusion, providing oxytocin and antibiotics, performing cesarean section, manual removal of the placenta, assisted vaginal delivery, abortion and resuscitation of the newborn. The center is equipped with a fully functional maternity block, including a Labour ward, operation theatre, blood bank/storage unit, new born ward, new born intensive care unit (NICU) and isolation ward.

All the CEmONC centre's are being upgraded as Centre of Excellence with the following facilities under the funding of GOI through National Health Mission:

- Buildings and other infrastructure,
- Major equipment such as Boyles apparatus, shadow less lamps, Ventilator, etc
- Operational cost
- Hiring of specialist

Chapter - 22

TUBERCULOSIS ELIMINATION PROGRAMME

22.1 With a vision to achieve elimination of TB by the year 2025, Tamil Nadu Government launched “TB Free Tamil Nadu - 2025”. A strategy document with emphasis on the 4 pillars namely “Detect – Treat – Build - Prevent” (DTBP) was developed for implementation. The Revised National Tuberculosis Control Programme (RNTCP) has been renamed as National Tuberculosis Elimination Programme (NTEP) in the year 2020 with the aim of stepping up the efforts on elimination of Tuberculosis in India. The Programme delivers TB Care Services with its full potential in line with the National Strategic Plan 2017-2025 and the programme is funded by National Health Mission. The objectives of the NTEP are:

Objectives	Baseline		Target	
	2015	2020	2023	2025
To reduce estimated TB Incidence rate (per 100,000 population)	217	142	77	44
To reduce estimated mortality due to TB (per 100,000 population)	32	15	6	3

To achieve zero catastrophic cost for affected families due to TB	35%	0%	0%	0%
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22.2 The NTEP aims early diagnosis and free treatment for Tuberculosis patients both in the public as well as in the Private Sector. Drug Sensitive TB is treated using Fixed Drug Combinations (FDC) as per appropriate weight bands. The FDCs are also made available to private providers for those patients who prefer treatment in private hospitals.

22.3 The infrastructure and the facilities available in the State under the programme are as follows:

State TB Training & Demonstration Centre (STDC) and State TB Cell	1
District TB Centres (DTCs)	35
TB Units (TU)	461
Designated Microscopy Centres (DMCs)	1984
Intermediate Reference Laboratory (IRL)	2 - (Chennai, Madurai)
Culture & Drug Sensitivity (C&DST) Labs	2 - (Tiruchirappalli Medical College & GHTM Tambaram)
Liquid Culture Laboratories for 2 nd line DST	2- (Chennai IRL, Madurai IRL)

Cartridge Based Nucleic Acid Amplification Testing (CBNAAT) Labs	68 + 2 (Mobile)
TRUNAAT	118
Nodal Drug Resistant TB Centre (DRTBC)	7 – Nodal DRTB Centres
District Drug Resistant TB Centre (DDRTBC)	31

22.4 Monitoring and Notification regarding number of cases diagnosed and number of cases treated: Through an online web portal called NIKSHAY, 70,560 TB patients were notified in 2020. Private Sector engagement is ensured in TB cases notification through this portal. So far 29,039 Private Health facilities, Pharmacies, Laboratories have been registered in NIKSHAY. Similar Web Portal called '**NIKSHAY AUSHADHI**' has been implemented for Drug logistics & supply chain management.

22.5 Programmatic Management of Drug Resistant TB (PMDT): The programme provides Universal access to quality diagnosis and treatment of Drug resistant Tuberculosis. The Cartridge Based Nucleic Acid Amplification Test (CBNAAT) is available at all District Tuberculosis Centre to identify Rifampicin Resistant Tuberculosis.

Specialised lab diagnostic services such as Line Probe Assay(LPA), Mycobacterium Growth Indicator Test (MGIT), Solid Culture test (LJ-Lowenstein Jensen Medium) are done at Intermediate Reference Laboratory(IRL) and Culture & Drug Sensitivity Test (C&DST) Labs. Exclusive wards have been created for Programmatic Management of Drug Resistant Tuberculosis at all districts. Extensively Drug Resistant TB Cases are managed at Government Hospital, Tambaram, Chennai, Coimbatore, Madurai, Tirunelveli, Thanjavur & Vellore. New drugs namely Bedaquiline for adult TB patients and Delamanid for paediatric TB patients have been introduced in our State for the first time in the country for DR-TB patients. As on 31st December 2020, there are 31 patients being treated with Bedaquiline and 4 patients with Delamanid in Tamil Nadu.

22.6 TB – HIV Services: The risk of developing Tuberculosis is estimated to be between 16-27 times greater in people living with HIV than among those without HIV infection. In view of that all the presumptive and registered TB cases are screening for HIV and vice versa.

YEAR	HIV TESTED TB Patients	HIV-TB CO- INFECTED
2018	75,662	3,047
2019	78,811	3,456
2020	64,445	2,314

22.7 Paediatric Services (Diagnosis and Chemoprophylaxis): Children less than 6 years are particularly vulnerable for severe disseminated TB disease and TB related mortality. Under NTEP all children, who are in contact with people diagnosed with tuberculosis, are regularly screened and Isoniazid preventive therapy (IPT) is given.

22.8 Nutritional Support through Direct Benefit Transfer (DBT): In order to improve Nutritional status of TB patients, financial incentive of Rs.500/- per month is given to all notified TB patients through Direct Benefit Transfer(DBT) under Nikshay Poshan Yojana Scheme. So far Rs.26.73 crore spent under this scheme for the beneficiaries. Nutritional support not only aids in better outcomes but also increases the compliance of drug intake.

22.9 Involvement of private sector for increasing case detection: As a part of Patient Provider Support Agency (PPSA) “ZeroTB Chennai Project – 2023” has been initiated in Greater Chennai Corporation along with NGO

Partners for notifying, providing investigation, treatment, counselling, nutritional support and follow-up services for the patients treated in the private sector. To support the National TB Elimination Programme (NTEP), "Joint Effort for Elimination of Tuberculosis (JEET)" will be implemented by William J Clinton Foundation (WJCF) under Global Fund Grant from 1st April 2021 to 31st March 2024 for Latent TB Infection Management in the districts of Chennai, Pudukkottai and Kancheepuram.

22.10 New Initiatives:

- To improve the TB case finding, 14 Mobile X-ray vans were utilized for Active and Targeted Case Finding in rotational manner in all districts. In 2020, 32,885 presumptive TB cases were identified in Active Case Finding, 29190 were tested for TB and 173 TB patients were identified.
- Under TB Free Chennai Initiative, 7 mobile X-ray vans are used for TB case finding. Artificial Intelligence is being used for X-ray reading.
- State TB Prevalence Survey in collaboration with ICMR-NIRT was started on 25/2/2021.
- To remove the difficulty to provide treatment

to TB patients, TB Clinic is being conducted every month to serve as a state-level clinical decision support system and an avenue for capacity building of the nodal & district DR-TB centres in the states for good quality management of difficult Drug Resistant -TB patients.

- Guidelines to manage Latent TB Infection released on World TB Day – 24th March 2021. To be piloted in 3 districts, Thiruvallur, Kanniyakumari and Thiruvannamalai.

22.11 Awards:

Government of India has proposed to certify Districts/ States Sub National Certification whose burden of TB disease has reduced compared to the 2015 Incidence estimates given by Central TB Division. A District or a State will be recognized for achieving “TB Free” status and will be certified upon verification of successful achievement of targets outlined (80% reduction in TB incidence from 2015 as per SDG Framework). Under this initiative, for 2020 Thiruvannamalai District of Tamil Nadu has been awarded Bronze for the year 2020.

Chapter - 23

MENTAL HEALTH PROGRAMME

23.1 District Mental Health Programme: The District Mental Health Program (DMHP) is currently established in 32 districts and will be extended to 5 more new districts during this financial year. 6,19,605 patients have been managed from April 2020 to March 2021 under DMHP. The activities conducted under DMHP program includes providing counseling and treatment for persons requiring care, awareness and workshop for the target group, training of school teachers for early identification of mental illness in adolescents, mental health screening through RBSK doctors, follow up of self-harm cases in TAEI app for 6 months through 104 tele counseling services, shifting of patients through Retrieval vehicle, satellite clinics through outreach psychiatrist, Emergency Care and Recovery Centre services (Government owned and NGO supported) and De-addiction centres.

23.2 State Mental Health authority: State Mental health authority, constituted under Mental Healthcare Act, 2017, regulates, develops and coordinates Mental Health services in the State. The Secretary to Government, Health and Family Welfare Department, is the Chairman. Seven other

officials and three non-government experts in the field of Psychiatry are its members. The State Mental Health Authority (SMHA) is responsible for supervising the Psychiatric hospitals/Nursing homes and other mental health services, advising the State Government on all matters relating to mental health and advocating for integration of mental health in general health care and in all social development sectors. The authority has a tremendous responsibility to create greater awareness about the services in this sector and is striving to enhance the role of government in integrating mental health hospitals/units, private organizations and the society at large, thereby taking care of the mentally ill patients.

23.3 Mental Health Review Boards and its Functions:As mandated under section 74 of the Mental Healthcare Act, 2017, Mental Health Review Boards have been formed in the State at 13 locations encompassing all the districts. Each board is headed by a chairperson in the rank of retired district Judge and other members such as Representative of the District Collector / Psychiatrist / Medical Practitioner and two Persons with mental illness or care givers or persons representing organizations of person with mental

illness or care givers or non-governmental organizations working in the field of Mental Health.

Functions of the Mental Health Review Boards include:-

- Review supported admissions
- Register and review advance directives
- Appoint nominated representative
- Decide objections against Mental Health Professional and Mental Health Establishment
- Decide for non-disclosure of persons with mental illness information
- Visit jails, and to protect human rights.

Tamil Nadu State Mental Health Policy and Implementation Framework has been published on 04.07.2019.

23.4 In Tamil Nadu, there is already a 1,800 bedded Institute of Mental Health at Chennai. Further, the Psychiatric wings of the following Medical Institutions under the control of the Directorate of Medical Education were strengthened utilizing the one time grant provided by the Government of India under National Mental Health Programme:

- Government General Hospital, Chennai
- Government Kilpauk Medical College Hospital, Chennai
- Government Stanley Hospital, Chennai
- Chengalpattu Medical College Hospital, Chengalpattu
- Government Mohan Kumaramangalam Medical College Hospital, Salem
- Thanjavur Medical College Hospital, Thanjavur
- Mahatma Gandhi Memorial Government Hospital, Tiruchirappalli
- Government Thoothukudi Medical College Hospital, Thoothukudi
- Government Coimbatore Medical College Hospital, Coimbatore
- Government Kanyakumari Medical College Hospital, Nagercoil
- Government Theni Medical College Hospital, Theni
- Government Rajaji Hospital, Madurai

23.5 Emergency Care and Recovery Centres (ECRC): It has been established with 50 beds

catering to the needs of wandering mentally-ill in 6 districts. The centre provides treatment, shelter rehabilitation, vocational training and reintegration services through NGOs in 6 districts of Vellore, Villupuram, Theni, Tiruvannamalai, Tiruppur and Pudukottai. The Government of Tamil Nadu has signed an MoU with NGO, The Banyan to support ECRCs in 10 districts across Tamil Nadu. The Banyan is responsible to establish the ECRCs with coordination of local NGOs. As of April 2021, 7 ECRCs are functional at Madurai, Thenkasi, Sivagangai, Thanjavur, Nilgiris, Erode & Thirunelveli.

23.6 Self-Harm Prevention: According to the National Crime Records Bureau (NCRB) report for 2019, the National suicide rate is 10.4 i.e roughly 10 persons per lakh commit suicide in India whereas the suicide rate for Tamil Nadu stands at 17.8 in 2019. Tamil Nadu also has the second highest number of reported suicides in the country after Maharashtra as per NCRB report 2019. The Global Burden of Disease (GBD) estimate for Self-harm is higher for Tamil Nadu with age adjusted Suicide rates of 26.9 for Males and 24.9 for Females. The number of Self-harm cases in Tamil Nadu has further increased during the current Pandemic. The number of Self-harm cases

reported in TAEI App is 9037 during the month of April 2021 which was only 8857 during April 2019. According to the National Crime Records Bureau's 2019 census, the most common reasons for suicide are Family problems (50%), Illness (18%), Drug Abuse/Alcoholic addiction (8%) and Love Affairs (5%).

23.7 New interventions as below are in various stages of implementation:

1. Population based screening for NCDs by Women Health Volunteers.
2. Strengthening of '104' call Centre for tele-psychiatric services.
3. Follow up of all suicide attempted persons for Mental Health Counselling
4. To ensure free drug availability for mentally ill patients upto PHC level.

Chapter - 24

COMMUNICABLE DISEASES MANAGEMENT

24.1 In recent times, of all the communicable diseases, COVID-19 pandemic has posed a great challenge to the community not only in Tamil Nadu but also in the entire World. The Public Health Department along with other departments is playing a pivotal role to control this virus through community participation and the tireless involvement of frontline workers. Like-wise, infectious diseases are mainly transmitted through water, food, air, fomites, bacteria, virus, fungi and vectors like mosquitoes. Tamil Nadu has always been the front runner in prevention, control and treatment of communicable and non-communicable diseases. Communicable diseases are of a great challenge to mankind. Infectious diseases are notified to the concerned local bodies, PHCs for organizing the control measures. Cases from neighboring States are also cross notified through Integrated Diseases Surveillance Programme (IDSP) at the State level, district level and the block level. IDSP monitors the occurrence of communicable diseases on 24x7 basis. Promotion of environmental sanitation, immunization and early identification and treatment of cases are the key

strategies followed for prevention and control of Communicable Diseases.

24.2 Vaccine Preventable Diseases: Vaccine Preventable Diseases (VPDs) namely Tuberculosis, Diphtheria, Pertussis, Hepatitis B diseases, diarrhoeal diseases, Haemophilus Influenza B, Tetanus, Poliomyelitis, Measles, Rubella, Rota virus and Japanese Encephalitis (in selected 14 endemic districts) are covered under the Universal Immunization Programme.

24.3 Immunization Programme: In 1978, Tamil Nadu started the Immunization Programme against Six Vaccine Preventable Diseases (VPDs) under Extended Programme on Immunization (EPI) to all pregnant women and their newborns. In 1985 to strengthen the Immunization programme further the Universal Immunization Programme (UIP) was launched. Annual Target for the year 2021-22 is 9.23 lakh infants and 10.12 lakh Antenatal mothers, with the State consistently achieving immunization coverage of over 99%. Under UIP, vaccination is provided to protect children and pregnant mothers against the Vaccine Preventable Diseases (VPDs) namely Tuberculosis, Diphtheria, Pertussis, Hepatitis B, Haemophilus influenza B, Tetanus, Poliomyelitis, Measles, Rubella, Rota virus

diarrhoeal disease and Japanese Encephalitis (in selected endemic districts).

24.4 COVID-19 Vaccination: The details about Covid vaccination is covered under the Chapter on Covid-19 Management.

24.5 Pulse Polio Immunization (PPI): To eradicate Polio from the country, the Government of India is conducting Pulse Polio Immunization every year. The State had attained a “Polio Free Status” since 2004 and for the past 17 years no polio case has been detected. During 2021, one round of pulse polio immunization campaign was conducted on 31.01.2021.

24.6 Japanese Encephalitis Vaccination: Japanese Encephalitis (JE) Vaccination given at the age 9-12 months and 16-24 months as booster dose and implemented in 14 identified endemic districts namely Cuddalore, Villupuram, Kallakurichi, Virudhunagar, Madurai, Thiruvarur, Tiruchirapalli, Perambalur, Ariyalur, Thanjavur, Tiruvannamalai, Pudukottai, Karur and Thiruvallur. In UIP, two JE vaccines are available(Killed/Inactivated) at present.

24.7 Mission Indra Dhanush (MID): The Mission Indra Dhanush programme is a special drive to vaccinate all unvaccinated and partially vaccinated

children below two years and pregnant women. In Tamil Nadu so far 6 phases of MID conducted successfully. Two rounds of Intensified Mission Indra Dhanush (IMI 3.0) was conducted in Tiruvallur district during February and March 2021.

24.8 Measles-Rubella vaccine: As per the National Technical Advisory Group on Immunization (NTAGI) recommendation, Measles Rubella Vaccination campaign is conducted targeting all children below 9 months and 15 years with a simultaneous switch from Measles to Measles Rubella vaccine in the National Immunization Schedule.

24.9 Rota Virus vaccine in Tamil Nadu: Rota virus vaccine is being administered in Routine Immunization as 5 drops orally for infants at the age of 6, 10 and 14 weeks along with Pentavalent and Oral Polio Vaccine.

24.10 Introduction of Pneumococcal Conjugate Vaccine (PCV) In India, over 1.2 million children die before their 5th birthday. Nearly 15.9% deaths are due to pneumonia. In order to provide protection against the disease, Pneumococcal conjugate vaccine has been included in Routine Immunization for infants at 6th, 14th week and a booster dose at the age 9 months. A National

Training on Trainers (TOT) has been completed on 29.06.2021 and 08.07.2021. Hon'ble Minister for Medical and Family Welfare launched the programme at IPH, Poonamallee on 13-07-2021. It is being implemented in all districts from 23.07.2021.

24.11 Introduction of Hepatitis- B vaccine to Health Care Worker All health care workers are at risk for exposure to infectious materials, including blood or body fluids, contaminated medical supplies and equipment or contaminated environmental surfaces and need to be vaccinated against Hepatitis B vaccine. Health care workers from DME/DM&RHS/DPH will be vaccinated through this programme.

National Vector Borne Diseases Control Program

24.12 Dengue: Dengue fever, a life threatening disease, is in a declining trend when compared to previous years. Necessary control measures are taken along with the co-ordination of local bodies to reduce the morbidity and mortality. A total of around 25,000 Domestic Breeding Checkers carryout Aedes Mosquito control on a daily basis.

- In Tamil Nadu there are more than 131 Dengue ELISA IgM centres where tests for

Dengue fever are being carried out.

- Adequate stock of Diagnostic kits, medicines, blood, blood platelets are being ensured frequently for treatment of Dengue.
- Besides Aedes Mosquito pools are subjected to RT-PCR test to detect Dengue Virus and Mapping of the districts are done accordingly. Based on these findings necessary vector control measures are initiated immediately. As a result of all these measures, dengue incidence is well under control.

The number of cases reported during the year 2021 (upto 28.08.2021) is 2,394 and zero fatality reported.

24.13 Chikungunya: Chikungunya is a viral disease and is also spread due to Aedes mosquito. The prevention and control measures against Chikungunya are carried out in an integrated manner with the Dengue control measures.

24.14 Zika: This disease is a type of viral fever, transmitted primarily to the people through the bite of infected Aedes Mosquitoes, which can also transmit Chikungunya, Dengue and Yellow fever. It

usually causes mild illness. More common symptoms are fever or rash appearing few days after a person is bitten by infected vector mosquitoes. Other symptoms may be conjunctivitis, muscle and joint pain and fatigue. The symptoms usually last for 2 to 7 days. Zika virus can be prevented by keeping a clean environment by eliminating Aedes mosquitoes breeding sites in and around human dwellings, public places such as Schools, Colleges, Offices, etc., Zika virus is reported in the adjoining Kerala State. Zika disease surveillance and vector control activities are being intensified in bordering districts adjacent to Kerala to prevent the spread of ZIKA virus disease to Tamil Nadu state. No person is affected in Tamil Nadu due to Zika virus during 2020-2021 and check posts are strengthened with medical team to monitor the situation.

Mosquito Control: A total of 20 Domestic Breeding Checkers (DBC) per block, 10 DBC's per Town Panchayats and for every 300 houses, one DBC is deployed by the Public Health Department in co-ordination with local bodies and other departments, to undertake Aedes mosquito vector control activities. Thermal fogging operation and IEC activities are also carried out to control the spread of ZIKA, Dengue and Chikungunya diseases.

24.15 Malaria: The National Malaria Control Programme (NMCP) is implemented in the State from 1953 and India is in the process of Malaria Elimination by 2030. Though the number of cases has shown a steady decline, still it is reported in few urban and rural areas in Tamil Nadu viz., Chennai, Ramanathapuram, Thoothukudi and Kanniyakumari Districts. Two rounds of Indoor Residual Spray are being carried out in malaria endemic villages to prevent malaria transmission due to monsoon. A total of 5,54,374 Long Lasting Insecticidal treated Mosquito Nets are distributed to the public those who are living in malaria endemic areas as a part of control of spread of malaria in the community. The spread of malaria has been brought under control through measures taken by the Government of Tamil Nadu to eradicate Malaria and by creating awareness about Malaria among general public. 380 Malaria cases reported as on 28.08.2021.

24.16 Filaria: The National Filarial Control Programme is under implementation in the State from 1957. Mass Drug Administration programme with Diethyl Carbamazine Citrate (DEC) tablet started in 1996 in Cuddalore District as a pilot project and this is extended in 1997-98 to all endemic districts. Since most of the Filaria

endemic districts have reported less than 1% Micro Filaria Rate, Transmission Assessment Survey had been conducted using Filaria antigen test methods in 20 Districts, as per the WHO guidelines. Post MDA surveillance are being conducted in these districts and certain activities like Morbidity Management training with Morbidity Management kit, migratory population screening etc., are carried out. Tamil Nadu is in the process of Elimination of Lymphatic Filariasis. Tamil Nadu is one of the few states in the country to reach the status of Filaria Elimination. As a initial step, Government of India has allotted Rs.27 lakh as an award to be distributed to the 13 Filaria Endemic Districts for achieving the major steps towards Elimination. Filaria control activities are routinely being done and as a major initiative, Tamil Nadu is spending Rs.9.62 crore towards Financial Assistance of Rs.1,000 per month to all Grade-IV Filaria patients and as on date 8,023 persons are the beneficiaries.

24.17 Multi-Dimensional approach to mosquito borne diseases control, Broad spectrum of IEC for prevention and control of Mosquito Borne Diseases: The District Collectors take continuous action to review and control these vector borne diseases at the field level. Inter-state meetings in

border districts, sharing of information and cross notifying of cases and to organize control measures.

24.18 Japanese Encephalitis: Japanese Encephalitis is caused by virus, which is of Zoonotic origin, Mosquitoes transmit the disease & pigs are amplifier Host. 14 districts are considered as Japanese Encephalitis endemic districts. Further the children in these districts were included under Routine Immunization and 2 doses of Japanese Encephalitis vaccination is being given in the age group of 9 months and 16-24 months.

24.19 Leptospirosis: Leptospirosis is a Zoonotic disease which requires timely diagnosis, treatment and control measures. Leptospirosis testing facilities are available in all District Public Health Laboratories, State Public Health Laboratory, Institute of Vector Control and Zoonosis (IVC & Z) Hosur and TANUVAS (Tamil Nadu Veterinary and Animal Sciences University), Madavaram, Chennai. The main preventive measure for leptospirosis is to create awareness about the disease, mode of transmission and its prevention. 254 cases are recorded during the year 2021 (upto 28.08.2021).

24.20 Swine Flu is one of the types of Influenza fever. While the WHO has downgraded its pandemic alert and declared this as a seasonal Influenza, the State always has not reduced the alert. Apart from awareness and focus on hand washing, the Public Health Department has stocked adequate stocks of capsule Oseltamivir. Swine flu patients are categorized based on severity of symptoms and treated as per standard treatment protocols. Focus is on contact tracing and treatment and special focus on the high risk groups especially pregnant women, children and people with diabetes and chronic illnesses.

24.21 Epidemic Control Activities at the State and District level: The State level Epidemic Monitoring Committee and the Public Health Disease Surveillance unit, look at the overall monitoring and the State level coordination with all departments and the stakeholders. At the district level, the Collectors are involved in ensuring the prevention of the public health challenges like outbreak of Acute Diarrhoeal Diseases by taking effective steps.

24.22 Mucormycosis: Mucormycosis is a fungal infection that spreads through fungal Spores, mostly affects people with uncontrolled diabetes

mellitus, Immuno-suppressed individuals, patients on prolonged ICU stay, post transplant / malignancy patients on Immuno-suppression therapy, patients on Voriconazole therapy. Mucormycosis can be prevented by wearing clean and hygienic masks, maintaining personal Hygiene, adequate glycemic control, appropriate and judicious use of steroids, antibiotics and anti-fungals. Tamil Nadu has declared Mucormycosis as a Notified Disease under Epidemic Disease Act, 1897. State has strengthened the surveillance and control measures against the disease, as per the national guidelines. A task Force Committee has been constituted to advise the Government on issues related to Mucormycosis, its prevention, treatment and also update the Government with the latest research on the subject and any other connected issues. Focus is on appropriate treatment of affected patients and special focus on the high risk groups especially people with diabetes, immuno-suppression, malignancy and post-transplant patients.

24.23 Integrated Disease Surveillance Programme (IDSP) Integrated Disease Surveillance Project (IDSP) was launched in 2005-2006 for a period upto March 2010. The project was restructured and further extended. State Surveillance Units (SSU) is functioning in the

Directorate of Public Health and Preventive Medicine and District Surveillance Units (DSU) at all revenue Districts in the O/o. Deputy Director of Health Services.

24.24 Integrated Health Information Platform (IHIP): At present IDSP is revamped as IHIP from weekly surveillance to daily surveillance. Integrated Health Information Platform (IHIP) was launched on 1st April 2021 and districts started reporting in it. Information on health-related events is being updated daily by both Government and Private institutions. All cases/syndromes are updated on daily basis in corresponding forms of S, P and L. 'S' form is the data on Suspected cases/syndromes and is filled by the field health workers. 'P' form is the data on Probable/clinically suspected cases and is filled up by Medical Officers. 'L' form is designated to collect data on Lab confirmed cases. The vision of IHIP is to have one-stop platform for all spectrum of Health events pertaining to communicable diseases from online reporting of lab confirmed cases to generation of Early Warning Signals (EWS).

24.25 District Public Health Laboratories (DPHL): The DPHL are the backbone of the laboratory network in Integrated Disease

Surveillance Program (IDSP) for the prevention and control of epidemic prone diseases. The laboratory has an important role in improving the quality of health by rendering appropriate diagnosis thereby decreasing the morbidity and mortality in the community. At present 32 DPHL are functional. These laboratories act as a system for specimen collection, transportation and processing to enable outbreaks in the district to be investigated and confirmed rapidly.

State Public Health Laboratory (SPHL) is a Reference Laboratory which functions under the direct control and supervision of the Director of Public Health & Preventive Medicine at DMS Campus, Chennai. SPHL has been established to provide laboratory confirmation of epidemic prone communicable diseases in the State. SPHL also has the mandate of building capacity for the strengthening of District Public Health Laboratories (DPHL) and Laboratories in PHCs to provide quality of laboratory services to the poor and needy community. SPHL has a well-established Bacteriology lab, Serology lab, State IDD lab, QMS Training Lab and RT-PCR laboratory. Serology Lab with CLIA facility has been involved in Seroprevalance studies of COVID-19 in Tamil

Nadu. The State of the Art RT-PCR laboratory is currently involved in

- COVID-19 testing, handling more than 18 lakhs RT-PCR Tests as on August 2021.
- Vector Borne Diseases Surveillance by detection of Dengue and JE Viruses from Vector Mosquitoes by RT-PCR Method.
- Laboratory confirmation of Vaccine Preventable Diseases (VPD) like Diphtheria and Pertussis.

Genome Sequencing Laboratory, being established in SPHL, will identify the emergence of SARS CoV-2 variants in Tamil Nadu so as to forecast Early Warning Signals of impending threat due to new variants in the community.

24.26 International Health Regulations (2005):

The International Health Regulations (IHR) (2005) aims to prevent, protect against, control and respond to the international spread of disease while avoiding unnecessary interference with international traffic and trade.

24.27 Sanitation and Hygiene: Hygiene is most important component in the prevention and control of diseases spread through Air / Fomite, Water, Food, Vector and Zoonotic causes. Simple

messages are spread through campaigns on the need to wash hands regularly to prevent diseases like Swine Flu, keep the surrounding environment clean to prevent breeding of mosquitoes and to prevent mosquito borne diseases.

24.28 Water Analysis Laboratory Water Analysis Laboratories under the control of Directorate of Public Health and Preventive Medicine are functioning at regional level in Tamil Nadu at 4 places - Chennai, Coimbatore, Tiruchirappalli and Tirunelveli. Water samples are collected from various water sources and examined and ensure the potability and safety of drinking water before consumption by people.

24.29 24x7 Epidemic Information Cell: This cell is functioning at Office of Directorate of Public Health and Preventive Medicine. It functions as a contact point for public and other stakeholders to interact and register any public health related issues. The phone numbers are 044-29510400, 044-29510500 and 9444340496, 8754448477. Functions of the cell are:

- Information from Public, Media, Government Officials and Newspaper are communicated to the respective Districts and State Level Officers for taking timely

action for the prevention and control of diseases.

- The information collected from the 45 HUDs about Cholera, Fever etc., are communicated (through email, Phone and SMS) to concerned Deputy Director of Health Services to monitor and review the public health measures against the spread of diseases.
- Health related issues during natural disasters such as earth quake, flood and cyclone are also communicated through this cell.

24.30 One Health Initiative: Tamil Nadu is the first State in India which started adopting the “One Health Initiative”. Under this, human, animal and environmental health are discussed under one umbrella with a view to share disease intelligence especially on Zoonotic and Vector Borne issues. It would gradually be expanded to research to supplement the efforts in respective fields.

Chapter - 25

NON-COMMUNICABLE DISEASE PREVENTION, CONTROL AND TREATMENT PROGRAMME

25.1 Non-Communicable Diseases (NCD) are on the rise and have emerged as leading cause of morbidity and mortality in the community. NCDs pose a challenge in both urban and rural areas due to changing life style pattern which is associated with NCD related risk factors. The State of Tamil Nadu is a pioneer in implementing the Non-Communicable Diseases Intervention Programme covering all districts. The programme is implemented under the aegis of National Health Mission (NHM) as National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS). The programme covers 2,610 Government health facilities across Primary / Secondary / Tertiary and Municipal levels of health care. Under the programme, screening, treatment and follow-up services are provided for Hypertension, Diabetes Mellitus, Cervical and Breast cancer to all individuals aged 30 years and above, and Risk Scoring is done for individuals aged between 18-29 years attending any Government health facility in the State. NCD

screening is carried out on both Facility Based NCD Screening and Population Based Screening mode. The other innovation includes strengthening NCD services in UHC program, formation of Patient Support Group (PSG). In addition to the above, counseling services for individuals on 'Life Style Modification' are also provided.

25.2 Performance under facility based or opportunistic screening for NCDs: The State level performance of all health facilities under NPCDCS programme for screening of NCDs during the period from April 2020 to March 2021 is as follows:-

25.2.1 Cardio Vascular Diseases (CVD) Prevention and Control Programme: 71,79,866 individuals were screened for Hypertension out of 2,87,649 were found to be positive for Hypertension. Those identified with Hypertension are put on treatment and follow-up.

25.2.2 Prevention and Treatment of Diabetes Mellitus: Among 48,70,559 individuals screened for Diabetes Mellitus 1,88,735 patients have been detected with Diabetes Mellitus. The patients identified with Diabetes are put on treatment and follow-up.

25.2.3 Prevention and Treatment of Cervical

Cancer: VIA Screening test for Cervical cancer was performed for 13,93,235 women among whom 23,538 were detected positive. The women found to be positive in the screening test have been referred to tertiary care institutions for further follow up treatment as per protocol.

25.2.4 Prevention and Treatment of Breast

Cancer: 19,99,276 women were screened with Clinical Breast Examination (CBE). Among the women screened, 17,713 were detected with abnormality or lump in the Breast. The CBE positive women were referred to higher institutions for further evaluation and follow-up as per protocol.

25.2.5 Strengthening of Cancer Care at State and District Level:

25.2.5.1 Four Regional Cancer Centres have been established in Government Rajaji Hospital Madurai, Coimbatore Medical College Hospital, Thanjavur Medical College Hospital and Tirunelveli Medical College Hospital at a total cost of Rs.60 crore. A state-of-the-Art 'Apex State Cancer Institute' for providing Tertiary treatment, Research and Education in Cancer care is being established at Government Arignar Anna Memorial Cancer Institute, Karapettai, Kancheepuram.

25.2.5.2 District Level Day Care Chemotherapy

Centres: Day care chemotherapy centres are functional in 18 District Headquarter Hospitals and 14 Medical College Hospitals namely Ariyalur, Namakkal, Ramanathapuram, Nagapattinam, Tiruvallur, Dindigul, Virudhunagar, Nilgiris, Kallakurichi, Tiruppur, Krishnagiri, Tiruvannamalai, Karur and Pudukottai. The final treatment decision for the patients confirmed with cancer will be done by the Tumour Board at Tertiary care hospital and the first Chemo cycle also would be given there. Then, the follow-up or maintenance chemotherapy which involves more cycles will be given at District Headquarters hospital under supervision of one physician and staff nurse in each district trained in Day Care Chemotherapy. This will amply benefit cancer patients who find it most inconvenient to report to the same Tertiary care institution for follow-up maintenance, chemotherapy and also incur lot of Out-of-Pocket Expenditure or fail to follow-up in the absence of such programme.

25.3 Population (or) Community based NCD Screening and Follow up:

Under NPCDCS programme, population or community based NCD screening is another specific intervention implemented in Tamil Nadu since April 2018 to improve NCD detection, referral and follow up by

enumerating all the population in the community through house-to-house visits primarily by a Women Health Volunteer (WHV) identified through Tamil Nadu Corporation for Development of Women (TNCDW) and who shall be paid a performance-based incentives. They also create awareness on NCDs and risk factors, screening for Hypertension using a Digital Blood pressure apparatus and for Diabetes Mellitus by a Glucometer for all those aged 30 years and above. The individuals suspected for Hypertension / Diabetes at the household level get referred to the nearest PHC for confirmation and further follow up. Women aged 30 years and above are in addition motivated to attend nearest PHC for Cervical and Breast cancer screening. The field functionary also refers those suspected for Oral cancer, Tuberculosis, Leprosy, Mental Health, Chronic Kidney Disease and Chronic Obstructive Pulmonary Disease. Besides the survey, the field functionary also carries out a risk assessment using Community Based Assessment Checklist (CBAC) for those in 18-29 years age group and refers those with a high-risk score to PHCs for screening. They also do group counseling and form **Patient Support Groups (PSG)** in the community for various NCDs in the community. In 2021-22, the

State NCD Cell, NHM Tamil Nadu has got approval to extend the Population based NCD screening throughout the State covering 8,713 HSCs in rural areas by placing 1 WHV per HSC. In Urban areas, the programme will also be extended to all corporation areas, by utilizing the services of 775 WHVs in non-metro areas and 560 WHVs in Greater Chennai Corporation in the year 2021-22.

25.4 Patient Support Groups (PSG) in Tamil Nadu: Patient Support Group (PSG) is a community-based intervention which is currently being implemented in Tamil Nadu for strengthening community participation for better NCD control including compliance to treatment for common NCDs especially Hypertension and Diabetes. The group can address a lot of issues faced by them in the management of the NCDs and mutually benefit each other through sharing of experiences. It was piloted in the UHC blocks of 3 districts namely Cuddalore, Villupuram and Virudhunagar during August 2019 and later being up-scaled to all 50 UHC blocks of Tamil Nadu. The activity has been integrated with the visit schedule of 'Hospital on wheels' programme through the Mobile Medical Units (MMU) in villages covered by MMU Team and in rest of the villages, it would be covered as part of the regular work plan of Health & Wellness centres. The Women Health Volunteer from the SHG

network is the first point of contact for the community in the household level screening for NCDs. From the untied funds of the HWC, an incentive of Rs.250 is given to the leader in-charge of the PSG by the MMU / HWC for the conduct of the meeting.

25.5 National Programme for Palliative Care (NPPC): Palliative care primarily aims to relieve suffering and improve quality of life of adults and children affected by life-threatening and life-limiting illness. This involves inclusion of their family members as a part of care giving services. It is estimated that 7 % of the population of Tamil Nadu require palliative care. From 2016 -21, District level Palliative care units have been established at 17 DHQH and 32 Medical College Hospitals. Potential beneficiaries of the programme include patients suffering from cancer, Cardiac Failure, COPD, Chronic Kidney Disease, mental retardation, hemiplegia, paraplegia, congenital mental and physical disabilities, Alzheimer's, Parkinson's, chronic debility in the elderly etc. For children, the major disease categories which require palliative care include cancer, HIV, progressive non-malignant conditions, congenital anomalies etc. Further, Community Based Palliative Care Services are being implemented at block level to provide home based Palliative care nursing services. Trained staff nurse designated as

'Community Palliative Care Nurse' @ 1 per block are providing home based Palliative care nursing services for those who are bed-ridden.As on date, 287 staff nurses have been trained in palliative care and Community Based Palliative Care Services have been implemented in blocks covering all districts. From inception of programme upto March 2021, about 1,79,985 beneficiaries were visited by the Home-based palliative Staff Nurses.

Chapter - 26

HEALTH CARE OF ELDERLY

26.1 As per Census 2011, 10.4% of Tamil Nadu population is above 60 years of age against the National average of 8.6% (Census 2011); thus becoming the third state in India with the highest share of elderly which stresses the importance of geriatric care in the state. The elderly suffer from various degenerative disorders that render them dependent and vulnerable. To cater to the health care needs of geriatric population, Government of Tamil Nadu through National Health Mission, Tamil Nadu has already taken initiatives by establishing elderly-friendly healthcare facilities at various levels of care under National Program for Health Care of Elderly (NPHCE).

26.2 NPHCE Services:

26.2.1 National Centre for Ageing, Chennai: It is a joint venture of Government of India and Government of Tamil Nadu and this 200 bedded institute for providing service to the elderly is of national importance located at the campus of King Institute of Preventive Medicine, Guindy, Chennai.

26.2.2 Regional Geriatric Centre (RGC), Rajiv Gandhi Government General Hospital, Chennai:

The Department of Geriatric Medicine, Rajiv Gandhi Government General Hospital, Chennai has been upgraded and has been serving as the Regional Geriatric Centre and provides tertiary level of care, training of health professionals and research.

26.2.3 Medical College / District Hospitals:

Government of Tamil Nadu has established geriatric units in 28 Government Medical College Hospitals of Coimbatore, Salem, Tiruchirappalli, Madurai, Tirunelveli, Thanjavur, Vellore, Villupuram, Dharmapuri, Chengalpattu, Kanniyakumari, Karur, Pudukkottai, Sivagangai, Theni, Thiruvarur, Thoothukudi, Thiruvannamalai, Ariyalur, Dindigul, Krishnagiri, Namakkal, Nagapattinam, Ramnad, Tiruvallur, Tiruppur, Virudunagar and The Nilgiris and 3 Government District Head Quarter Hospitals at Cuddalore, Erode and Perambalur with required man power.

26.2.4 The following facilities are available in each district level hospital under NPHCE:

1. Exclusive 'Geriatric OP' for elderly patients on all days of the week.
2. Separate queue for elderly at OP Ticket issue counter, Pharmacy, Laboratory and Radiology.
3. Twenty bedded elderly-friendly ward with anti-skid floor, side-rails and western toilets with adjacent grab bars.

4. Physiotherapy unit for elderly patients.
5. Intensive-Care facilities- Four ICU cots and One Ventilator reserved for elderly.

The details of elderly patients who have availed services during April 2020 - March 2021 under NPHCE is given below:

1. Number of Elderly persons attended Geriatric OP -**5,66,255**
2. Number of Elderly persons admitted in geriatric wards-**24,080**
3. Number of Elderly persons given rehabilitation services-**72,162**
4. Number of Laboratory tests performed for the elderly -**6,42,409**

26.2.5 Services at Block level: The Government has sanctioned 385 posts of Physiotherapists for 385 Block PHCs @ one Physiotherapist per Block PHC to avail geriatric care services at block and community level. Government has issued order to conduct Geriatric OPD for elderly person twice a week (Thursdays and Saturdays). Now this Geriatric OPD is branded as “Long Term Clinic” providing primary level Geriatric care, Palliative care, Mental health services and Speciality services like Ophthalmology, ENT at block PHC’s.

Chapter - 27

OTHER PROGRAMMES

27.1 NATIONAL TOBACCO CONTROL PROGRAMME:

27.1.1 The National Tobacco Control Programme is implemented in Tamil Nadu since 2003 and the State Tobacco Control Cell is functioning under the Director of Public Health and Preventive Medicine since 2007. The major components of the Tobacco Control Programme includes enforcement of tobacco control law, capacity building of various stakeholders on tobacco control, raising awareness in schools and colleges and declaration of tobacco free educational institutions, organizing mass IEC awareness campaigns and establishment of tobacco cessation centres. All the District in the State are implementing Tobacco Control Activities as per COTPA, 2003 (under Section 4, 5, 6 & 7). District Tobacco Control Cell are being implemented in a phased manner in 10 Districts namely Kancheepuram, Villupuram, Madurai, Coimbatore, Tiruchirappalli, Pudukottai, Cuddalore, Nagapattinam, Tiruppur and Tirunelveli

27.1.2 Key Performance: The significant activities of the State and District Tobacco Control Cell

Programme for the period from 2.10.2008 to 28.08.2021 is given below:

i) Enforcement activities:

- Total No. of. Violators fined: **2,41,458**
- Total fine amount Collected:**Rs. 4,49,29,087**

ii) Training:

- Total No. of. Training conducted : **1200**
- Total No. of Persons Trained : **71052**

iii) School Program: Awareness Programs conducted all over Tamil Nadu which resulted in 'Tobacco Free Educational Institutions' as detailed below:

- Total No. of. Schools declared as "Tobacco free Schools" : **13080**
- Total No. of. Colleges declared "Tobacco free Colleges" : **1344**

27.1.3 Tobacco Cessation: Tobacco Cessation Centers are established in Villupuram, Kancheepuram, Madurai, Coimbatore and Tirunelveli districts and training imparted as furnished below:

- Medical Officers Trained : **684**
- ICTC Counselors Trained : **53**

- NCD Staff Nurses Trained : **148**
- Health volunteers : **78**

27.1.4 Mass Campaign, Celebration of World No Tobacco Day, Rally, IEC on Wheels, Human Chain, Signature Campaign, Pledge taken against Tobacco usage, Distribution of Pamphlets, etc were some of the IEC activities carried out.

27.1.5 Declaration of Smoke Free Places

- Smoke Free Villages
- Smoke Free Embassies
- Smoke-Free Police Commissioner's Office and Police Stations
- Smoke Free Prison in Tamil Nadu, Smoke Free Transportation
- Smoke-Free Tamil Nadu Postal Circle
Smoke Free Educational Institutions,
Medical Colleges / Dental College /
Government Hospitals/ Primary Health
Centres (PHCs)
- Smoke Free Government Buildings
- Smoke Free Hotels/ Restaurants/ Malls
- Smoke Free Industries, Smoke Free Slums in Chennai City

- Tobacco Free Cinema Theatres and so on.

27.1.6 Banning of E-Cigarettes: One of the developments in Tobacco Control Programme is banning of E-cigarettes in the State. The manufacture, sale (including Online sale), distribution, trade, display, marketing, advertisement, use, import and possession of Electronic Nicotine Delivery systems (ENDS) in any form is banned in Tamil Nadu and the same is being implemented effectively.

27.2 NATIONAL DEWORMING DAY PROGRAMME:

27.2.1 National Deworming Day programme is conducted twice in a year to eliminate the Soil Transmitted Helminths (STH)- Hook worm, Round worm, Pin worm etc., to the children in the age group of 1-19 years by providing tablet Albendazole through school and anganwadi children. The children between the age group of 1 to 14 years are at risk of infection due to poor sanitation and hygiene conditions. STH are easily transmitted to children through contact with infected soil. Periodic deworming of children together with improvement of water and sanitation, Health Education and life style changes can reduce the transmission of Soil Transmitted Helminths.

27.2.2 First National Deworming Day (NDD) was conducted on 10th Feb 2015 with the objective to control Infection and to improve the overall Health & Nutritional Status, access to Education and quality of life of children. The NDD programme is conducted bi-annually each year for which a detailed micro plan was prepared and trainings were given to the Medical, Paramedical, Teachers and Anganwadi workers. Three stakeholders have played an important role under the NDD Programme, are:

- Health and Family Welfare Department
- Education Department
- Integrated Child Development Services (ICDS)

The successful conduct of deworming programme will help in reduction of Soil Transmitted Helminths infection thereby reducing Anaemia and Malnutrition to a greater extent.

27.3 NATIONAL IODINE DEFICIENCY DISORDERS CONTROL PROGRAMME

27.3.1 Iodine is an essential micronutrient required for normal body growth and mental development. Nutritional Iodine Deficiency reckons its impact right from development of the foetus to all ages of

human beings. It could result in abortion. Stillbirth, Mental Retardation, Deaf-mutism, Squint, Dwarfism, Goiter, Neuromotor defects etc. Iodine deficiency thus directly affects human resource development which in turn greatly influences human productivity as well as National development. Realizing the magnitude of the problem, the Government of India launched a 100 percent centrally assisted National Goiter Control Programme (NGCP) in 1962. In August 1992, National Goiter Control Program (NGCP) was renamed as National Iodine Deficiency Disorders Control Programme (NIDDCP).

27.3.2 The important objectives and components of National Iodine Deficiency Disorders Control Programme (NIDDCP) are as follows:-

- Surveys to assess the magnitude of the Iodine Deficiency Disorders.
- Supply of Iodized salt in place of common salt.
- Resurvey after every 5 years to assess the extent of Iodine Deficiency Disorders and the Impact of Iodized salt.
- Laboratory monitoring of Iodized salt and Urinary Iodine Excretion (UIE).

- Health education and Publicity

Awareness on the use of Iodine salt in households is being raised through ASHA staff with a view to create a Iodine superfluous Tamil Nadu and the amount of iodine in household salt is being tested. In addition, salt samples are being collected from shops and homes by Health Inspectors for Laboratory purposes so that the Sale and use of Iodine Salt is being monitored. Global Iodine Deficiency Disorder Day is observed on October 21st every year to create awareness on the need for using Iodine salt and awareness creation messages are also disseminated through Radio and Newspaper advertisements well ahead of World Iodine Deficiency Prevention Day. Salt samples are collected from all over Tamil Nadu through Food Safety Officers for laboratory testing and recommended for legal action against the producers who produce the salt without adequate iodine content in salt.

27.4 NATIONAL LEPROSY ERADICATION PROGRAMME

27.4.1 National Leprosy Eradication Programme is a centrally sponsored Health Scheme of the Ministry of Health & Family Welfare. NLEP strategies and plans are formulated centrally; the

programme is implemented by the State Government since 1955. The Programme is also supported by partners like World Health Organization, International Federation of Anti leprosy Associations (ILEP) and certain Non - Governmental organizations.

27.4.2 Leprosy is a chronic infectious disease caused by *Mycobacterium leprae*. It usually affects the skin and peripheral nerves. The disease is characterized by long incubation period generally 2 to 5 years and is classified as pauci bacillary or multi bacillary, depending on the bacillary load. Leprosy is a leading cause of permanent physical disability. Timely diagnosis and treatment of cases, before nerve damage has occurred, is the most effective way of preventing disability due to leprosy.

27.4.3 Aim

- To achieve interruption of transmission and Zero new leprosy cases in the community
- To achieve the G2D Cases (Grade 2 Disabilities) less than 1 per million population
- No Child Deformity
- Zero Leprosy related Stigma & Discrimination in the community

27.4.4 Treatment of Leprosy: National Leprosy Eradication Programme was started in 1983. Initially, "Dapsone" was given as Monotherapy. Multi Drug Therapy (MDT) was introduced in 1983 which consists of Rifampicin, Clofazimine and Dapsone as per recommendations of WHO to cure Leprosy in a shorter time and prevent Leprosy transmission in the community. In 1991, in all districts in our State are fully covered by Multidrug therapy(MDT). The only effective method to reduce the burden of Leprosy in the community is to reduce the source of infection through "Multi Drug Therapy" (MDT). Infected and cured leprosy patients began to be accepted by the Community as a result of intensive health education and successful results of MDT.

27.4.5 Milestones in NLEP:

- 1955 - National Leprosy Control Programme launched
- 1970 - As a pioneering step, the Government formulated a comprehensive welfare policy. Our government was opened 10 Leprosy rehabilitation homes in Tamil Nadu for welfare of Leprosy patients.
- 1983 - National Leprosy Eradication Programme launched

- 1983 - Introduction of Multidrug therapy (MDT) in Phases
- 1991 - State fully covered by Multidrug therapy(MDT)
- 1997 - Tamil Nadu was the Pioneer state to integrate Leprosy with General Health Scheme for the successful implementation of the programme.
- 1998 - Modified Leprosy Elimination Campaign I (MLEC I)
- 1999 - Modified Leprosy Elimination Campaign II (MLEC II)
- 2000 - Modified Leprosy Elimination Campaign III (MLEC III)
- 2000 - Special Action Plan for Elimination of Leprosy (SAPEL)
- 2002 - Modified Leprosy Elimination Campaign IV (MLEC IV)
- 2004 - Modified Leprosy Elimination Campaign V (MLEC V)
- 2005 - Our state was achieved the elimination goal of Prevalence rate less than 1/10,000 population)

- 2006 - District Nucleus Team (DNT) was introduced to monitor and evaluate NLEP activities at the District, block & PHC level.
- 2013 - 2017- High endemic blocks survey done every year
- 2017 - 2021- Sparsh Leprosy Awareness Campaign on 30th Jan, every year
- 2018 - Active Leprosy Case Finding in 87 High Endemic Blocks
- 2018 - Leprosy Case Detection Campaign I (LCDC I) in 18 Districts
- 2019 - Post Exposure Prophylaxis (PEP)
- 2019 - Leprosy Case Detection Campaign II (LCDC II) in 18 Districts

27.4.6 State Profile (2020 – 21)

- Under Treatment Cases: 1567
- Prevalence rate/10000 population: 0.19
- New Case detected (April, 2020 to Mar, 2021): 1769
- ANCDR/100000 population: 2.12
- Total Cured cases (RFT): 3101
- New Child Cases detected: 154
- Child case proportion: 8.71
- New Female cases detected: 731
- Female case Proportion: 41.32

- Total Grade II Deformity cases: 48
- Deformity rate / Million population: 0.58

27.4.7 Newer Initiatives:

- **LCDC - Leprosy Case Detection Campaign I & II** in 18 districts was carried out and 688 & 815 new cases were detected respectively. 25 new Grade II Deformity cases also reported during this activity.
- **SLAC - Sparsh Leprosy Awareness Campaign** (Anti-Leprosy Day) is conducted on 30th January since 2017 on the occasion of death anniversary of Mahatma Gandhiji. During this year, in Anti Leprosy Fortnight (30th Jan to 13th Feb, 2021) 196 new cases were detected by various mode of case detection and all newly detected cases were put on Treatment in our state.
- **Post Exposure Prophylaxis** - A single dose Rifampicin is given to all contacts (Family & Neighbors) of newly detected Leprosy Patients - 57004 contacts were benefited by this activity. (January 2019 to May 2021)
- **Contact survey** for 1769 new cases was conducted and 101 new cases were detected and put on treatment during 2020 - 21.

- **Disability Prevention and Medical Rehabilitation (2020 - 21)**

Total No. Reconstructive Surgeries	81
Total No. Self-care kits distributed	17,206
Total No. MCR foot wears given	10,028
No. of patients treated for Reaction and Neuritis	305
No. of Persons receiving Rs.1500 / per month under Disability maintenance grant	7,776
No. of Persons receiving Rs.1000 / per month under Social Security Scheme	3,494

27.4.8 Plan of Activities for 2021 - 22:

- Active Case Detection & Regular Surveillance in all districts of high and low endemic areas as per the guidelines issued by Govt. of India.
- Hard to reach areas survey will be carried out at 43 areas in 11 Districts.
- Training for all Medical Officers and Health personnel
- Reconstructive Surgeries will be performed for all eligible cases

Chapter – 28

CHIEF MINISTER'S COMPREHENSIVE HEALTH INSURANCE SCHEME

28.1 Government of Tamil Nadu launched Chief Minister Kalaignar's insurance scheme for life saving treatments on 23.07.2009 to ensure that poor and low income groups who cannot afford costly treatment, are able to get free treatment in Government as well as private hospitals for serious ailments. Under this scheme, each beneficiary family was insured for availing free treatment upto Rs.1 lakh. The Government paid the entire premium for this purpose. 1.34 crore poor families in the State were covered initially under this revolutionary scheme. Chief Minister's Comprehensive Health Insurance Scheme has been expanded with effect from 11.01.2012. The scheme covers 1.58 crore families whose annual income is less than Rs.72,000. In view of the enormous public benefit, the scheme has been continued further for five years starting from 11.01.2017. Government of India's flagship program of Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (PMJAY) has been operationalized by Government of Tamil Nadu integrated along with CMCHIS from 23.09.2018. About 77.71 lakh families have been identified as beneficiaries in the

AB PMJAY scheme and 60% premium amount is being given.

28.2 The salient features of integrated CMCHIS PMJAY are as follows:-

- At present, 1059 hospitals (267 Government Hospitals and 792 Private Hospitals) are empanelled under the scheme.
- Sum insured – All the beneficiary families get health coverage upto Rs.5 lakh per year / per family.
- Procedures: Government of India's PMJAY packages have been integrated with existing CMCHIS packages and currently a total of 1,450 medical and surgical treatment procedures (including 154 specialized procedures, 154 follow up procedures, 38 standalone diagnostic and 8 high end procedures) are covered under the scheme.
- Majority of socially and economically under privileged population have been covered under the scheme including special categories like Migrant labourers, Tribals, Slum Dwellers etc.
- Orphans as defined by the State Government are also covered under the

scheme without mandatory family cards. Enrolment of children orphaned by COVID has been initiated in coordination with Social Welfare Department.

- CMCHIS health insurance card is used for claims processing can be obtained from Kiosks in District Collectrates and the same can be downloaded and printed from the CMCHIS website.
- NABH entry – level accreditation / NQAS certification has been mandated for all empanelled hospitals including Government Hospitals.
- Minimal Electronic Health Record are available for beneficiaries on CMCHIS website.

28.3 In view of COVID -19 pandemic, the Honorable Chief Minister of Tamil Nadu has announced on 07.05.2021 that free treatment in private hospitals for all types of COVID-19 cases will be given under Chief Minister's Comprehensive Health Insurance Scheme to reduce the burden to the general public. In this COVID pandemic, the general public get a standard treatment in private hospitals without any delay. Consequently 642 private hospitals, designated for COVID-19,

treatment have been temporarily empanelled under the scheme for treating Chief Minister's Comprehensive Health Insurance Scheme beneficiaries during this COVID pandemic.

In addition, for the benefit of the public, the Government have reduced the package rates for RT-PCR test as detailed below:

a) For the samples referred by the Government to Private Labs, the RT-PCR testing cost for COVID-19 has been reduced from Rs.800 to Rs.550 and for Pooled Samples the testing cost has been reduced from Rs.600 to Rs.400 under Chief Minister's Comprehensive Health Insurance Scheme.

b) For non-Chief Minister's Comprehensive Health Insurance Scheme beneficiaries, the RT-PCR testing cost for COVID-19 has been reduced from Rs.1,200 to Rs.900 and an amount of Rs.300 (without change) has to be paid as an additional cost towards home visit.

During the COVID-19 pandemic, in order to safeguard the people and to render cashless treatment to the public, treatment cost for CMCHIS beneficiaries and general public for COVID-19 has been revised in G.O.(Ms).No.251, Health and

Family Welfare Department, dated 22.05.2021 as detailed below:

Sl. No.	Type of Treatment	Rate already fixed (per day)	Rate Now fixed (per day)
1.	Non-Oxygen support bed	Rs.5000/-	Rs.5000/-
2	Oxygen support bed	--	Rs.15,000/-
3	ICU ventilated	14,000/- 15,000/-	Rs.35,000/-
4	ICU non-ventilated	10,000/- 11,000/-	Rs.30,000/-
5	ICU with O2-only as stepping down	---	Rs.25,000/-

Further considering the decline of Covid-19 cases, treatment cost has been converted from per day basis to package cost as per revised G.O.(Ms).No.347, Health and Family Welfare Department, dated 09.08.2021.

The comparison details are as below:

Sl. No.	Treatment cost as per G.O. (Ms) No 251, H&FW (EAP1-1) Dept, dt 22.05.2021		Treatment cost as per G.O. (Ms) No 347, H&FW (EAP1-1) Dept, dt 09.08.2021	
	Type of Treatment	Rate already fixed(per day) Rs.	Package Name	Package cost Rs.
1.	Non critical Covid-19	5000	CM01600-B-I: Non critical COVID 19	3,000
2	Non critical Covid-19 with Oxygen support bed	15,000	CM01600-B-II: Non critical COVID 19	7,500
3	ICU ventilated	35,000	CM0523: Acute respiratory Distress (ventilated)	56,200
			CM0988: ICU care(Respiratory Distress /unconscious /septic shock/with ventilator support)	31,500

4	ICU non-ventilated	30,000	CM0522:Severe respiratory failure (without ventilator)	27,100
			CM0960:Septic shock(ICU)	43,050
5	ICU	25,000	CM0522:Severe respiratory failure (without ventilator)	27,100
			CM0960:Septic shock(ICU)	43,050

After the announcement of the Hon'ble Chief Minister on 07.05.2021 and issuance of the above Government Orders, 30,086 beneficiaries have been approved for COVID-19 treatment for an insurance coverage of Rs.378.07 crore in private hospitals upto 28.08.2021.

Beneficiaries treated for COVID under Chief Minister Comprehensive Health Insurance Scheme

Sl.No	23.03.2020 to 06.05.2021		07.05.2021 to 28.08.2021	
	Total No of Beneficiaries	Claims Amount	Total No of Beneficiaries	Claims Amount
1	1,466	6.98 crore	30,086	378.07 crore

**Beneficiaries treated for Mucormycosis under
Chief Minister Comprehensive Health Insurance
Scheme**

Sl.No	23.03.2020 to 06.05.2021		07.05.2021 to 28.08.2021	
	Total No of Beneficiaries	Claims Amount	Total No of Beneficiaries	Claims Amount
1	33	6.6 lakh	1782	552.84 lakh

RT-PCR tests done under Chief Minister's Comprehensive Health Insurance Scheme

Sl.No	23.03.2020 to 06.05.2021		07.05.2021 to 28.08.2021	
	Total No. of Beneficiaries	Amount Rs.	Total No of Beneficiaries	Amount Rs.
1	15,67,967	218.41 crore	18,38,866	106.51 crore

28.4 Grievance Redressal:

- ❖ A well-established grievance redressal mechanism exists which includes online tracking and SMS acknowledgement. Availability of a Call centre 24/7 with Toll Free No.18004253993 at Chennai to record complaints from the beneficiaries and obtain details on the scheme like queries on enrolment, empanelled hospitals, treatment facilities available etc.
- ❖ The General Public can contact toll free No.1800 425 3993 / 104 to register their complaints 24 X 7 against the private hospitals who collect more than the treatment cost for COVID-19 fixed by the Government.

28.5 Performance:

Since 23.07.2009 to 28.08.2021, a total of **74,90,860** beneficiaries have availed treatment worth **Rs.9337.50**crore. Of these **25,12,546** patients got treated in Government hospitals at a cost of **Rs.3018.97**crore. (including diagnostic procedures)

28.6 Speciality wise authorization issued for surgery are given in the table below as on 28.08.2021:

S. No.	Speciality / Package	Appr. Nos.	App. Amount In crore
1	Kidney Disease – Dialysis	9,74,465	779.79
2	Cardiac Stent For Heart Attack	94,883	635.61
3	Cardiac By Pass Surgeries	44,019	416.14
4	Cardiac Valve Replacement Surgeries	1,53,421	373.90
5	Cancer – Radiotherapy	35,640	343.52
6	Knee Replacement	47,049	307.60
7	Congenital Cardiac Disease	33,882	265.09
8	Fractures	1,55,316	275.90
9	Kidney Stone Surgery	1,32,931	246.74

10	Cancer – Chemotherapy	5,44,625	266.78
11	New Born Diseases	1,76,113	222.66
12	Spinal Surgery	54,662	186.49
13	Heart Attack Medical Management	80,146	186.50
14	Cancer	52,837	162.55
15	Hip Replacement	16,828	122.57
16	Eye Surgery Like Retinal Surgery	87,881	127.40
17	Hysterectomy	70,986	112.85
18	Vascular Surgery	48,161	117.20
19	Hearing Aid	1,35,545	108.76
20	Git – Surgery	59,525	126.59
21	Plastic Surgery	52,179	97.79
22	Cardiac Arrhythmias Management	12,162	84.51
23	Neurosurgery	18,110	77.08
24	Cochlear Implant Surgery	4,302	73.28
25	Stroke Management	38,727	67.60
26	Prostate Surgery	28,787	64.44
27	Hysterectomy For Cancer	21,601	51.06
28	Renal Transplantation	3,204	51.64
29	Gynaec Surgery	24,123	50.83
30	Interventional Radiology	11,000	52.84
31	Breast Cancer	32,602	55.68
32	Blood Cancer	52,708	43.29

33	Burns	15,256	36.58
34	Lavh	20,425	30.28
35	Brain Tumors	5,850	33.84
36	Git	12,764	33.50
37	Thyroid Surgery	13,019	27.25
38	Eye Surgery-Adult Glaucoma	15,706	18.45
39	Paediatric Congenital Malformations	5,351	16.88
40	Bone Marrow / Stem Cell Transplantation	1013	18.58
41	Cancer Surgery	7,787	18.12
42	Eye Surgery-Diabetic	23,169	11.02
43	Dengue Shock Syndrome	8,314	9.57
44	Pmr (Physical Medicine Rehabilitation)	1,952	12.48
45	Eye Surgery-Paediatric Cataract	5,445	8.40
46	Epilepsy Surgery	683	6.98
47	Liver Transplantation	446	8.42
48	Squint Surgeries	3,192	3.66
49	Bariatric Surgery	212	3.74
50	Hysterectomy - Pregnancy Related	1,104	2.49
51	Thalassemia Chelation Therapy	6,705	3.23
52	Heart & Lung Transplantation	92	1.83
53	Stem Cell Transplantation	64	0.89

54	Eye Surgery-Paediatric Glaucoma	161	0.23
55	Others	8,01,606	1525.57
	Grand Total	42,48,736	7986.74

28.7 A corpus fund has been created by Government to meet out high cost procedures like Liver Transplantation, Renal Transplantation, Heart and Lung transplantation including post transplantation Immunosuppressant Therapy, Bone Marrow Transplantation, Cochlear Implantation, Auditory Brain Stem Implantation and Stem Cell Transplantation. All the beneficiaries for such high-end procedures are approved by an Expert Committee.

So far, **10,412** beneficiaries (as on 28.08.2021) have been approved for these high end surgeries from the Corpus Fund as per the following details:

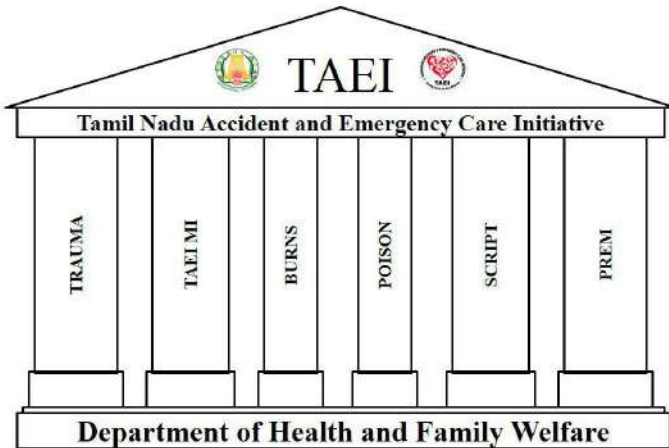
Sl. No	Nature of Surgical procedure	Number of beneficiaries authorized	Amount (Rs. in crore)
1	Liver Transplantation	885	190.01
2	Renal Transplantation	3473	135.66

3	Cochlear Implantation	4538	326.69
4	Bone Marrow Transplantation and	1335	131.70
	Stem Cell Transplantation		
5	Heart transplantation	122	23.03
6	Heart and Lung transplantation	20	5.39
7	Lung transplantation	16	3.82
8	Auditory Brain Stem Implantation	23	4.19
Total		10,412	820.49

Chapter - 29

TAMIL NADU ACCIDENT AND EMERGENCY CARE INITIATIVE AND '108' EMERGENCY CARE SERVICES

29.1 The Government of Tamil Nadu has recognized the alarmingly rising morbidity and mortality due to emergency conditions and has been implementing the Tamil Nadu Accident and Emergency Care Initiative (TAEI) with the aim of strengthening Emergency Care Services in the State across all levels of health care (Primary, Secondary, Tertiary and Quaternary).



29.2 Aim of TAEI: To establish a sustainable model of Emergency Care Service Delivery in the State.

29.3 Objectives of TAEI:

- i. To reduce the trauma morbidity and mortality in the State by half by the year 2023.
- ii. To reduce the myocardial infarction related morbidity and mortality by 1/3rd by the year 2023.
- iii. To reduce Burn Injury related morbidity and mortality by 1/3rd by the year 2023.
- iv. To reduce the self-harm and poison related morbidity and mortality by half by 2/3rd by the year 2023.
- v. To reduce the cerebro-vascular accident morbidity and mortality by 1/3rd by the year 2023.
- vi. To reduce the paediatric emergency related morbidity and mortality by half by the year 2023.

29.4 Key Concepts of TAEI: TAEI introduces a few key concepts and paradigm shifts in patient care in Tamil Nadu **Emergency Care System**. The Patient Care has been demarcated into various clearly defined Stages and Steps with Time norms

fixed for each, easy to implement protocols and guidelines, Check lists and Standardization of Registers.

Emergency Department (ED) is being created in all Hospitals by reorganising the existing casualty with Emergency Room (ER), Hybrid High Dependency Unit (HHDU), Emergency OT, CT scan/MRI, mobile X-ray facility and counselling & rehabilitation room in the ED premises. The TAEI Emergency Room model incorporates key features like Concept of triage, pre-arrival intimation, Hospital call out protocols, Pain Management Protocols, Trauma Nurse co-ordinator in all shift, Resuscitation bay, Red, yellow and green zones, Protocol based treatment, E-FAST, Point of care testing (POCT), Uniform for all health care work force and e MLC. The maternal death audit is being done to improve the Quality of Care in ED.

29.5 Activities during the year 2020-21:

- i. 83 TAEI centers have been established across the State in 39 Medical Colleges and attached hospitals, 20 District Headquarters Hospitals and 24 Sub-District Hospitals located in Strategic Locations along the highways.
- ii. Under **“Stroke Care and Rapid**

Intervention with Plasminogen activator and Thrombectomy” (SCRIPT):

- a) The Mapping of 23 hubs and 55 spokes with CT scan facility is established.
- b) Providing Bi-plane cath lab unit for neurological patient to Rajiv Gandhi Government General Hospital, Chennai at a cost of Rs.750 lakh.
- c) Providing Infra scanner for stroke at Rajiv Gandhi Government General Hospital-Chennai, Government Rajaji Hospital-Madurai, and Government Mohan Kumaramangalam Medical College Hospital-Salem at a cost of Rs.150 lakh.
- d) Stroke management through Hub and Spoke model in Government Medical College Hospital, Tirunelveli and 10 Secondary Care hospitals at a cost of Rs.915 lakh is being done.

iii. Under Myocardial Infarction Program

- a) 18 Hubs with cath lab and 188 Spokes are Geographically Mapped and steps to enhance cath lab

performance and thrombolysis at Spoke hospitals is taken.

- b) Center for excellence in Cardio vascular imaging in Rajiv Gandhi Government General Hospital, Chennai is being established at a cost of Rs.338 lakh.
- c) Optical Coherence Tomography (OCT) has been provided to 5 Medical college Hospitals namely Government Medical College Hospital-Vellore, Government Medical College Hospital-Tirunelveli, Government Mohan Kumaramangalam Medical College Hospital-Salem, Government Medical College Hospital-Thanjavur, and Government KAP Viswanathan Medical College Hospital-Tiruchirappalli.
- d) Intra Vascular Ultra Sound (IVUS) is provided to Government Mohan Kumaramangalam Medical College Hospital-Salem, Government Medical College Hospital-Tirunelveli, and Government KAP Viswanathan

Medical College Hospital-
Tiruchirappalli.

- iv. **Poison Management** Center through Hub and Spoke model in Government Medical College Hospital, Thanjavur and 11 Secondary Care hospitals at a cost of Rs.438 lakh is being done.
- v. Step to reduce unnecessary inter facility transfer (IFT), emergency surgery within six hours and Trauma Registry are being done and monitored closely by Tamil Nadu Health System Reform Program (TNHSRP).
- vi. Currently, Application Based Reporting is being carried out at all TAEI centers and data pertaining to Trauma, Burns, Poisoning, Self-Harm, MI, Stroke, and Paediatric Resuscitation and Emergency Management (PREM) are being collected on a real time basis.

29.6 Capacity building: In order to ensure effective implementation of the training, 'hands on' sessions and skill stations have been planned at the 25 Medical College Hospitals. Currently 5 Regional Training Centers (RTC) are functioning under TAEI with fully equipped necessary Emergency Care mannequins. They are:

- Rajiv Gandhi Government General Hospital, (RGGGH) Chennai.
- Government Rajaji Hospital, Madurai.
- Government Mohan Kumaramangalam Medical College Hospital, Salem.
- Government Vellore Medical College Hospital, Vellore.
- Government Head Quarters Hospital, Cuddalore

29.7 Response Time Reduction of Ambulances:

Dynamic allocation of ambulances has been done by the 108 ambulance Services after which there has been a significant reduction in response time of the State from 15.04 minutes in 2017 to 14.45 minutes in 2020. The response time in the city has decreased further from 11 minutes to 7.38 minutes.

29.8 Reduction in Road Traffic Accident (RTA)

deaths: Due to the meticulous efforts taken by the various stakeholders in TAEI and other departments concerned, there has been a 13.8% dip noted in the Road Traffic Injury (RTI) fatalities. The RTI deaths have been significantly reduced from 12,216 in 2018 to 10,525 in 2019 (SCRB 2019). The RTI deaths are further reduced to 8060 in 2020 (January-December).

29.9 Rehabilitation: Under TAEI, comprehensive Medical and Psychological rehabilitation program is planned such that holistic service delivery is ensured. Every District Head Quarters Hospital has been provided with physiotherapist by National Health Mission and their services will be utilized for providing rehabilitation for trauma victims. Provisioning of functional prosthesis to patients is being done under CMCHIS.

‘108’ EMERGENCY CARE SERVICES

29.10 Every year a large number of precious lives are lost in road accidents. The State Government has taken concerted efforts to reduce the accidents and also to save invaluable human lives. The most important being the efficient running of the 108 Ambulances services and maintenance of Trauma Care Centres.

29.11 ‘108’ Ambulance Services was launched on 15th September 2008. It is successfully being operated in Tamil Nadu through a single Toll Free Number and the services are available 24x7 and free to the public. This program is implemented through a Public Private Partnership between Government of Tamil Nadu and GVK EMRI. The MoU is extended for another four years from May, 2018. Each ambulance has one fully trained

Emergency Medical Technician (EMT) who provides the pre-hospital care to victim and a Pilot (Driver).

29.12 Deployment of Ambulance: Based on the population density, accident prone areas, hilly terrain and remote areas in each District, 108 ambulances are deployed in all 38 districts across the State. At present 1,303 ambulances are under operation providing Basic Life Support, Advanced Life Support, Neonatal Care and 4 VVIP ambulances. In addition, 41 First Respondent Bike Ambulances form part of '108' service.

29.13 Ambulance Fleet Strength:

Sl. No.	Ambulance Type	Numbers
1.	Basic Life Support (BLS)	1,113
2.	Advance Life Support (ALS)	121
3.	Neonatal Life Support (NLS)	65
4.	VVIP Convoy	4
	Total Ambulances	1,303
5.	First Responder Bike	41

29.14 Categories of Medical Emergencies for the year 2020-21 (April 2020 to March 2021)

S. No.	Type of Emergencies	Percentage
1	Pregnancy Related	23.63
2	Trauma (Vehicular)	13.43
3	Acute Abdomen	4.86
4	Cardiac/Cardio Vascular	4.04
5	Trauma (Non Vehicular)	3.30
6	Accidental Poisoning	3.05
7	Fevers / Infections	1.76
8	Respiratory	3.40
9	Assault	2.77
10	COVID-19	21.59
11	Others	18.17
	Total	100

29.15 Highlights for the year 2020-2021 (April 2020 to March 2021)

- 76,637 valuable and critical lives saved
- 67,026 medical emergencies attended in tribal areas
- 22,511 Neonatal cases handled

29.16 Details of Beneficiaries under this Service

Parameters	2011-12	2012-13	2013-14	2014-15	2015-16
Pregnant Mothers	139068	160160	207492	233109	232408
RTA	130226	147290	174248	180578	191988

Other Emergency	231063	326914	409053	471765	533595
Total Beneficiaries	500357	634364	790793	885452	957991
Tribal related	13411	15541	16879	26910	31935

Parameters	2016-17	2017-18	2018-19	2019- 20	2020- 21
Pregnant Mothers	240827	322868	314932	302036	314913
RTA	219310	228549	245049	213953	178935
Other Emergency	590861	736028	731565	719799	838974
Total Beneficiaries	1050998	1287445	1291546	1235788	1332822
Tribal related	45103	64457	62562	64604	67026

29.17 Neonatal Ambulances: For the first time in the Country, neonatal emergencies were brought under the purview of Public EMS. These ambulances are available for handling emergencies of Newborn for babies' age of 28 days who need to be transferred from a Primary / Secondary care hospital to a Tertiary care hospital having Neonatal Intensive Care Units (NICU). These ambulances have life saving equipments like Transport ventilator, Transport Incubator and Syringe Pump that re required to handle emergencies. In addition, specially trained Emergency Medical Technicians are posted to provide care during transit. Over 22,511 babies have been benefited in this speciality

service in this year. Currently 65 ambulances are in operation in all the districts. .

29.18 Emergency Care Centre (ECC): Emergency Care Centres are established for stabilizing the critical cases during long distance transport, especially in highways. This enables the critical cases to receive timely medical intervention within the Golden Hour which also significantly reduces the mortality rate. ECC is a three bedded centre equipped with doctors and advanced paramedics available 24x7 and provided with emergency drugs and advanced life saving equipments like ventilator, defibrillator with multi Para monitor, etc. At present there are 12 Emergency Care Centres and all centres are established in Tambaram, Padiyanallur, Injambakkam, Mahabalipuram, Veppur, Sriperumbudur, Kodumbalur, Madurai, Madhanur, Magudanchavadi, Soolagiri and Gummudipoondi for stabilizing the victim prior to long distance transportation. Totally 69,268 beneficiaries benefitted through all 12 centres since inception.

Sl. No.	ECC Location	Launched Date	Total No. of Cases	Life Saved (%)
1	Chromepet	05.08.2013	26,864	91.8
2	Padiyanallur	25.06.2014	18,039	90
3	Injambakkam	03.11.2017	8,782	95
4	Mahabalipuram	28.09.2018	6,975	97.8

5	Veppur	17.11.2019	3,932	97.4
6	Sriperumbudur	20.11.2019	2,760	88
7	Kodumbalur	03.10.2020	816	100
8	Madurai	13.02.2021	240	100
9	Madhanur	13.02.2021	294	100
10	Magudanchavadi	13.02.2021	258	98.2
11	Shoolagiri	13.02.2021	153	90
12	Gummidipoondi	13.02.2021	155	100

29.19 Bike Ambulance (First Responder Bike) and Portable Medical Kit: First Responder Bikes are provided with a comprehensive, portable medical kit which is easy to handle at scene. 22,534 persons were benefitted during 2020-21 under this service. It is planned to extend this service to major Corporations across the State.

29.20 Covid-19 dedicated ambulances: Due to the outbreak of Covid-19 Pandemic second wave, 108 ambulance services are operating more than 450 ambulances across Tamil Nadu especially to provide and assist the patient from test and screening centre to the Government Hospitals and Medical institutions, once after their test results are declared as positive. In this regard, the dedicated ambulances have attended more than 2,87,806 Covid-19 infected patients and enabled them to get admission in the hospitals for treatment.

29.21 Government has also established Accident and Trauma Care Centres in Certain Tertiary care institutions and District Headquarters Hospitals with the Government of India assistance.

104 Health Help Line Services: This is a 24x7 service through which people can get health related advice, medical counseling and information about various Government Health Schemes.

Services provided are as follows:

- Doctors and Health Professionals provide medical advice and information related to health problems.
- Pregnant woman are informed about the medical facilities available in the hospitals nearby to them.
- Information and feedback regarding Government schemes such as (CMCHIS) Chief Minister Comprehensive Health Insurance Scheme, Dr. Muthulakshmi Reddy Maternity Benefit Scheme are channeled through this service.
- Nutritional advice and periodic counseling for patients with suicidal tendency are also being provided.

- Public can also make complaints / suggestions about functioning of any Government Health facility in the State.
- The total number of beneficiaries benefitted are 18,84,248 since launch and up to March 2021.

To enhance and support the patient affected with Covid-19 syndrome, Tamil Nadu 104 HHL which was functioning with 20 seating call center has been expended with additional 10 seats as stress management center (TAEI Counseling). The scope of 104 HHL has widened as follows:

- Health Advice
- Health Information
- Grievance Redressal
- Medical Advice
- Counselling
- Stress management (Prevention of suicide)

As the Tamil Nadu Government has announced 104 HHL as the Covid Control Room, the number of calls and enquiries relating to Covid19 has increased exponentially. On an average, number of calls received in a day has increased from 2000 calls / day to 10000 calls / day. Especially to

support and to overcome the Pandemic situation Call Center has been expanded with additional 30 seating capacity on temporary basis for receiving the Covid-19 related enquires to provide uninterrupted service to the public until the present situation settles down.

The services provided through 104 HHL have increased as furnished below:

1.	Covid bed request to hospital complaints
2.	Oxygen request
3.	Drug request
4.	Vaccine availability
5.	Vaccine E-Registration
6.	Vaccine related doubts
7.	Arogya Sethu App.
8.	Complaints and Grievance
9.	Covid testing facility
10.	Covid screening/triage centers
11.	Covid admission facilities- to be arranged through 104
12.	Self reporting of covid symptoms
13.	Self reporting of primary / close contact
14.	Covid related doubts
15.	102 Call transfer
16.	108 Ambulance call transfer

102- Free drop back service (JSSK):102-JSSK Scheme provides 100% free drop back service to delivered mothers and treated sick infants from Government Hospitals to their home. NHM funding this scheme. 3,46,147 numbers of cases have been transported through this services during the year 2020-2021. Totally, 132 vehicles are functioning under this service. During the COVID Pandemic, 102 JSSK Drop Back service extended the service to transport the Dialysis & Cancer Patients from Home to Hospital and from hospital to home after their treatment.

155377-Free Hearse Service: The corpse of the deceased are transported from Government Hospitals to the place of disposal or home free of cost irrespective of the distance within the State. This service also renders support during major accidents, natural calamities and disasters by transporting the deceased to the Government Hospitals for autopsy and then to their destination. For cases requiring transportation beyond 300 kms, Railways are used as mode of transport. 1,29,837 numbers of cases have been transported through this service during the year 2020-2021. Currently 249 vehicles are functioning in this service. During the COVID-19 Pandemic, this service has been extended to transport the COVID-19 deceased from

the hospital / home to cremation grounds in the emergency period 20 additional vehicles included in the FHS fleet strength. Apart from this, the Greater Chennai Corporation provided 15 vehicles to Chennai District Free Hearse service. Government of Tamil Nadu will extend the services to transport the deceased from Old Age home / Orphanage deaths to burial grounds.

Chapter – 30

UNIVERSAL HEALTH COVERAGE

30.1 Access to Health is a fundamental universal right and the national health policies have been emphasizing the importance of providing Universal Health Coverage (UHC) at the point of entry whereby a full spectrum of comprehensive health needs including quality, health promotion, prevention and treatment, rehabilitation and palliative care are covered. Subsequent to the landmark UN resolution of endorsing UHC in December 2012, the World Bank Group and the World Health Organization (WHO) have identified UHC as a top priority goal for sustainable development. The Government of Tamil Nadu strongly believes that public health strengthening through a comprehensive primary health care approach is the key to achieve UHC in the State.

30.2 The State has identified the burden of Non-Communicable Diseases as the major challenge. The Government of Tamil Nadu envisages the concept of applying the health systems approach to strengthening the health care delivery in the State. By embarking on a path of systems approach, the State is trying to address the different issues by creating necessary policy frame works and

programs by taking into account the Global Burden of Diseases (GBD) targets set in the Sustainable Development Goals (SDGs).

30.3 In this regard, as mentioned in a separate chapter, a major flagship scheme viz., Makkalai Thedi Maruthuvam (MTM), was launched by the Hon'ble Chief Minister of Tamil Nadu on 5th of August 2021. MTM is a holistic and comprehensive set of "Home Based Health Care Services" offered to ensure continuum of care, sustainability of services and also to meet the health needs of beneficiaries in the family as a whole. Another important feature of the scheme is that each and every line-listed beneficiary under the scheme is brought under the Population Health Registry (PHR) as it will form the common denominator for continuous monitoring of the patients.

30.4 While Tamil Nadu has made remarkable progress in areas such as Maternal & Child Health and Trauma, the need for a scheme like MTM and enrolment under the PHR is critical for Tamil Nadu to achieve its SDG target in reducing premature mortality from NCDs by one-third by 2030, through prevention and treatment.

UHC Cube and Tamil Nadu's Strategy

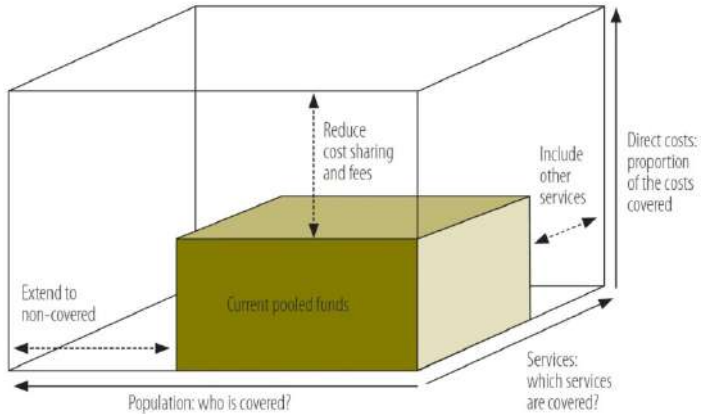


Figure 1: The UHC Cube (WHO, 2015)

30.5 Equity based Service Delivery: TN UHC Strategy: Based on the Organization for Economic Co-operation and Development (OECD) countries' experience, it can be observed that approximately 10% of patients account for 65% costs, meaning, that it is critical to focus and redirect efforts on patients with the highest costs. Addressing this challenge requires a three-part strategy:

- Primary care: delivery system reform
- Payment reform
- Health Information Technology

Population:

- Universal Health Coverage through a Unique Health ID (UHID) through Population Health Registry

Services:

- Services based on epidemiological and demographic context
- Provision of comprehensive and holistic health care delivery at doorsteps through “Makkalai Thedi Maruthuvam” with a focus on NCD care and services

Financing:

- Gradual shift from normative budgeting to a financing mechanism based on the population covered and services offered.
- Strategic Purchasing via Chief Minister’s Comprehensive Health Insurance Scheme

30.6 Under the present government, Tamil Nadu’s strategic shift in Health Policy involves placing “Right to Health” and “Right to Health care” as the foundation of the State’s health system. The ultimate goal is to ensure Right to Health and the State will work towards it by achieving the following:

- i. Adequate physical infrastructure at various levels
- ii. Adequate skilled human power in all health care facilities
- iii. Availability of the complete range of specific services appropriate to the level
- iv. Availability of all basic medications and supplies

The State's Public Health System will be further strengthened to achieve the desired public health outcomes.

Chapter - 31

SUSTAINABLE DEVELOPMENT GOAL – 3 STRATEGY OF TAMIL NADU

31.1 The Sustainable Development Goals (SDGs) include one specific goal for health; Ensure healthy lives and promote well-being for all at all ages, with 13 targets including many linkages and cross-cutting elements, thereby reflecting the necessity of an integrated and comprehensive approach to achieve the SDGs by 2030.

31.2 SDG-3 Major Indicators: Targets and Achievements

Category	Indicator	Target	Present Status	Source
MCH	Maternal Mortality Ratio (MMR)	70	60	SRS 2016-18
	Under-five mortality rate	25	17	SRS 2018
	Neonatal mortality rate	12	10	SRS 2018
Communicable Diseases	End the epidemics of AIDS, Tuberculosis (TB), Malaria, Neglected Tropical Diseases (NTD) etc.	0	11.2 % of total Disability-Adjusted Life Years (DALYs)	GBD 2016
Non Communicable Diseases	Reduce premature mortality by 1/3rd	140000	380000	CRS 2019
Trauma / Injuries	Reduce Road Traffic Accidents (RTA) by 50% by 2030	8125	10525	SCRB 2019

31.3 SDG 3 and Major Implementation Strategies adopted by the State

SDG Goal No.	SDG Goals	Implementation strategies in Tamil Nadu
3.1	By 2030, reduce the Global MMR to less than 70 per 100 000 live births	<ul style="list-style-type: none"> a. Provision of 24x7 delivery care services b. Promotion of Institutional deliveries at public facilities c. Birth Attendance by skilled health professionals d. All 400 Block/ Zones Mentoring on Virtual and Real Time basis by the Obstetrician including Chennai e. EDD mothers/ High Risk Mother tracking through PICME f. Interim COVID Care Centres (ICCC) -47 UG PHC exclusively for Mothers affected with Covid g. Early Childhood development services (First 1000 days) through 102 call centre h. Ensuring AN and PN mother vaccination for Covid i. Dr. Muthulakshmi Reddy Maternity Benefit Scheme (MRMBS) j. Comprehensive Emergency Obstetric and Newborn Care (CEmONC) Services k. High Risk Mother Observation l. Ensuring Maternal & Child Health(MCH) Protocols m. Janani Suraksha Yojana (JSY) n. Janani Sishu Suraksha Karyakram (JSSK)

		<ul style="list-style-type: none"> o. Drugs/Diagnostics/Diet/Drop back) p. Emergency Transport Services q. Maternal Anemia Intervention (Blood Bank, Iron Sucrose) r. Chief Minister's Comprehensive Health Insurance Scheme (CMCHIS) s. Girl Child Protection Scheme (Social Welfare Department) t. Maternal Death Audit (State & District Level) u. Strengthening of District Hospitals by commencement of DNB programme
3.2	By 2030, put an end to the preventable deaths of newborns and children under five years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 live births and under-five mortality to at least as low as 25 per 1000 live births.	<ul style="list-style-type: none"> a. Provision of Resuscitation & Essential Newborn care services b. Facility based Newborn care c. Home based Newborn care d. Integrated Management of Neonatal and Childhood Illness (IMNCI) services e. Janani Sishu Suraksha Karyakram (JSSK) f. Neonatal Ambulances Special Newborn Care Unit (SNCU)/ Newborn Stabilization Unit (NBSU)/Newborn Care Corner (NBCC)/Kangaroo Mother Care (KMC) g. Provision of Immunization services h. Screening of Children under Rashtriya Bal Swasthya Karyakram (RBSK) Scheme for Birth Defects, Diseases, Deficiencies and Developmental delays i. Nutrition Rehabilitation Centers

		j. Growth Monitoring & supplementary nutrition through Integrated Child Development Scheme (ICDS)
3.3	End the epidemics of AIDS, Tuberculosis, Malaria and Neglected tropical diseases and combat Hepatitis, Water-borne diseases and other communicable diseases by 2030	<ul style="list-style-type: none"> a. Effective implementation of National AIDS Control Programme through Tamil Nadu State AIDS Control Society (TANSACS) b. Implementation of National Tuberculosis Elimination Programme (NTEP), Multi Drug Resistant (MDR) and Extensively Drug Resistant TB (XDR-TB) Management c. State TB Prevalence Survey for identifying hotspots and community based specific interventions d. Implementation of National Vector Borne Disease Control Programme (NVBDCP) in co-ordination with DPH&PM and Local Bodies / Provision of Domestic Breeding Checkers (DBC's) e. Implementation of Integrated Disease Surveillance Programme (IDSP) f. Establishment of District Public Health Laboratories through Lab Information systems g. Strengthening of existing Laboratory services to meet IPHS standards
3.4	By 2030, reduce by one third premature mortality from	<ul style="list-style-type: none"> a. Makkalai Thedi Maruthuvam : Comprehensive set of Home Based Health Care Services b. Implementation of NCD

	Non-communicable diseases through prevention and treatment and promote mental health and well-being.	<p>Programme</p> <ul style="list-style-type: none"> c. Establishment of NCD Clinics in all health facilities d. Coverage of NCD Complications under CMCHIS e. Implementation of National Mental Health Programme f. Home based Palliative Care and Physiotherapy services g. Caring for End Stage Kidney Failure patients: Continuous Ambulatory Peritoneal Dialysis (CAPD) services
3.5	Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.	<ul style="list-style-type: none"> a. Establishment of De-addiction Centers b. Suicide Helpline and Counseling services
3.6	By 2020, halve the number of Global deaths and injuries from Road Traffic Accidents (RTA).	<ul style="list-style-type: none"> a. Tamil Nadu Accident & Emergency Care Initiative b. TN State Trauma Care Policy c. State TAEI Surveillance Center d. TAEI-Trauma Registry
3.7	By 2030, ensure universal access to sexual and reproductive health-care services, including for Family Planning, Information and Education and the integration of	<ul style="list-style-type: none"> a. Implementation of Rashtriya Kishor Swasthya Karyakram b. Establishment of Adolescent Friendly Health Clinics c. Provision of ICTC Counsellors d. Weekly Iron Folic Acid (WIFS) supplementation e. Provision of Free Sanitary Napkins under Menstrual Hygiene Scheme f. Establishment of 104 Centralized call center

	reproductive health into national strategies and programmes.	
3.8	Achieve Universal Health Coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.	<ul style="list-style-type: none"> a. Makkalai Thedi Maruthuvam b. Population Health Registry for fixing the denominator c. Right to Health d. Health & Wellness Centers strengthening
3.9	By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals, air/water/soil pollution and contamination.	<ul style="list-style-type: none"> a. Climate Change Cell at State Level b. Implementation of Bio-Medical Waste Management Rules 2016 c. Implementation of Food Safety and Standards Act (FSSA)
3.10	Strengthen implementation of framework convention on Tobacco control.	<ul style="list-style-type: none"> a. Implementation of National Tobacco Control Programme (NTCP) b. Establishment of State & District Tobacco Control Cell c. Enactment COPTA
3.11	Provide access to medicines and	<ul style="list-style-type: none"> a. Providing free drugs, vaccines and diagnostics in all Government

	vaccines for all; support Research and Development of vaccines and medicines for all.	Health facilities b. Providing financial support to King Institute of Preventive Medicine and Resource Centre
3.12	Increase health financing and health workforce in developing countries	a. Provision of substantial increase in health budget b. Recruitment of health manpower through exclusive Medical Services Recruitment Board (MRB)
3.13	Strengthen capacity for early warning, risk reduction and management of health risks.	a. Implementation of Integrated Disease Surveillance Programme (IDSP) b. Provision of capacity building of health functionaries

31.4 The State has achieved significant progress in maternal and child health in last few decades. Tamil Nadu has 99.99 percent institutional deliveries (HMIS, 2021) and an MMR of 60 deaths per one lakh population (SRS 2018), clearly surpassing the SDG 2030 goal. Further, the under-5 mortality rate has declined from 20 per 1000 live births in 2015 to 17 as per recent SRS, 2018, which is also much lower than the national U-5MR of 36. Tamil Nadu has registered a reduction in Infant Mortality Rate (IMR) from 19 per 1000 live births in 2015 to 15 per live births in 2018 which is lower than the national IMR of 32 per 1000 live births. Also, the immunization coverage is about 99 percent (State

HMIS, 2021) nearing the target of reaching full immunization coverage.

31.5 Significant achievements in vital health indicators such as low fertility rate, low mortality rate, increase in average life expectancy combined with change in dietary pattern, food habits, environmental & social determinants has led to an epidemiological transition and demographic transition in the State, resulting in a rise of NCD related illnesses.

The current major challenges faced by the State include:

1. Sustaining the achievements made in vital health indicators
2. Addressing emerging issues related to the rise in mortality and morbidity due to NCDs, ageing, mental health, climate change etc., apart from the challenge of the COVID-19 pandemic and other communicable diseases.
3. Addressing the unmet needs for affordable, accessible and equitable healthcare
4. Community empowerment and participatory governance

The programmes enumerated in the earlier chapters have indicated the way forward in overcoming the challenges and achieving the remaining targets well ahead of the year 2030.

Chapter - 32

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

32.1 This Medical University was established in the year 1987 by the enactment of the Tamil Nadu Medical University Act, 1987 (Tamil Nadu Act, 37/1987). The name was subsequently changed to 'The Tamil Nadu Dr.M.G.R. Medical University' (TNMGRMU). This University is functioning from July 1988 and is one of the largest Medical and Health Sciences' Universities of India. The University currently has about 2,65,000 students spread across its Affiliated Institutions under various streams of Medical and Allied Health Education. With over 725 institutions of Medical, Dental, AYUSH, Pharmacy, Nursing, Physiotherapy, Occupational Therapy and various other Allied Health streams under its fold, The Tamil Nadu Dr.M.G.R. Medical University has set itself the twin objectives of Quality Education and Applicative Research in Medical, Dental, Para-medical and AYUSH Specialties.

32.2 This is the only Medical Sciences' University in the State of Tamil Nadu, capable of granting affiliation to new institutions under Government or Self-financing establishments in Medical, Dental,

AYUSH, Pharmacy, Nursing, Physiotherapy, Occupational therapy and various Allied Health Sciences' Educational Streams, and in due course, awarding the degrees concerned. In the academic year 2020-21, about 20,025 Eligibility Certificates have been issued to various candidates; and around 1,500 Migration Certificates have been issued.

ACTIVITIES AND FUNCTIONS OF THE UNIVERSITY

32.3 Activities and Programmes Related to Covid-19 Pandemic: As the Covid-19 pandemic unravelled itself in 2020, the University committed itself to the objectives of reducing the effects of the pandemic and preventing the severity of the disease.

- The University became one of the establishments that initiated knowledge exchange activities quite early in the pandemic. Even when the world was thinking a merely Novel Corona Virus and a new disease, this University conducted an International Update on 17.03.2020 to facilitate knowledge dissemination.
- Online classes were (and also being) encouraged during the pandemic period. To

ensure that there was continuity in academic exchanges and that there was no break in the Teaching-Learning system, the university, in association with TCSion, established a free virtual learning platform. All the MBBS students in the various affiliated institutions benefitted from this platform, wherein at least 100 medical teachers conducted their domain classes online. Online and virtual classes were conducted in full swing, in the Pharmacy and Nursing faculties too.

- In order to have continuous services, almost all of the functions of the academic wing were established virtually; applications for the migration and eligibility certificates were received online and issues were also made online.
- Despite the Lockdown situation, evaluation of answer scripts was done utilizing the Virtual Desktop Interface Technology. Stagnation of unevaluated answer scripts was thus avoided and evaluators could access the scripts from wherever they were. Appropriate security measures were taken. Travel time and difficulties thereof, Stay and

accommodation difficulties, Hospitality and travel expenses were all avoided by this use of technology. Further, viral exposure of the evaluators and the officials and staff of the university was also avoided.

- The University plunged into Research activities in April 2020 itself. The Immunology Department of the university which was engaged in research activities and insilico studies of the Novel Corona Virus, identified a Synthetic Polypeptide as a vaccine candidate by the Reverse Vaccinology method. Efforts were undertaken to synthesize the polypeptide and subsequently, test the same. The animal studies and toxicology studies in cell lines, conducted in association with TANUVAS, have proven that the vaccine candidate could stimulate production of antibodies in hamsters. Further work is in progress.
- The university also did projection studies, evaluating and calculating the disease trajectory and progression. Clinical and Epidemiological models were used to project the progression pattern of Covid-19. The data derived from these SIRD model studies

were handed over to the Government in May 2020. Updated data were subsequently turned around in August and November as well. These data were for the entire State. In addition, projection studies relating to Greater Chennai, Chengalpattu District and separate areas seven regions of the Chengalpattu District were also made. These were turned around to the respective Special Officers. Projection studies were also given to the State e- Governance Department.

- The pandemic brought in a lot of mental health issues. Public had to suffer several difficulties and grievances too. Many were afflicted by Stress, depression and Anxiety disorders. In order to provide support and counselling, the university opened a few telephones lines and mail services; counselling services were implemented. The officers and staff of the university engaged themselves in these activities. Hundreds of people benefitted from these counselling and support services.
- As part of the Covid detection services, the Covid-19 RT-PCR laboratory functions in this university too. The services of the

laboratories of the Departments of Experimental Medicine, Immunology and Epidemiology have been amalgamated to establish a Covid Special Laboratory. RT-PCR testing of suspect swabs is being done in this laboratory. This laboratory practically functions 24x7 and has been approved by the ICMR. In the ranking recently released, the university laboratory is placed fourth in the State and this is, despite the restricted manpower and other facilities. Almost 2,00,000 tests have been performed (1,94,547 till 25.07.2021).

- This university is involved in mitigation and prevention activities too. The students of Pharmacy and Nursing Courses in the affiliated institutions across the State of Tamil Nadu have been and are involved in awareness creation activities regarding Covid Appropriate Behaviour. Dissemination of CAB awareness is being done through television and media programmes, media write-ups, published material and academic meetings. The affiliated institutions have displayed CAB posters in their surrounding areas. 8400 students who were involved in

awareness activities in their respective areas have been issued with certificates.

A special CAB Webinar was conducted on 12.01.2021 in association with the Thiruvalluvar University, Vellore in a bid to create awareness to the public in and around Vellore.

32.4 Activities of Coordination – Memoranda of Understanding: With the objective of developing international cooperation, the Tamil Nadu Dr. MGR Medical University entered into a partnership with The Royal College of Surgeons, Edinburgh. Academic programmes, Covid Infotech Exchanges and Research activities are covered under this partnership. The Tamil Nadu Dr. MGR Medical University has also signed a Memorandum of Understanding with the Federal University of Mato Grosso of Brazil; joint research activities are being undertaken under the ambit of this MoU. There are other Memoranda of Understanding with academic establishments including the Tamil Nadu Veterinary and Animal Sciences University (TANUVAS), Thiruvalluvar University, Vellore and the Directorate of Indian Medicine and Homoeopathy. Academic and Research activities are being conducted.

32.5 Examinations Monitoring – Answer script Evaluation: The university is committed to

transparency and accountability in the Conduct of Examinations and in the Evaluation of Answer Scripts. In 2020, the university introduced the Online Live Monitoring / Real-time Surveillance of Examinations. All the examination centres are linked to the Central Monitoring Centre at the University. Online monitoring is done to prevent examination malpractices. TNMGRMU has implemented the system of on-screen evaluation to avoid any mishandling or tampering of answer scripts. The system ensures a quick and efficient evaluation process. The system has been further refined and fine-tuned during the pandemic lockdown. The evaluators access answer scripts through the Virtual Desktop Interface from their places of residence or dwelling. The technical know-how for the virtual evaluation and VDI has been provided by the Madras chamber of commerce.

32.6 Research Articles – Publications: 29 Research Articles have been published in various National and International journals in 2020-21.

32.7 Affiliation – Grants – Other Activities: Letters of Consent of Affiliation have been granted in 2020 for the establishment of 14 (11 Government + 3 Self Financing) new Medical Colleges,

3 (2 Government + 1 Self Financing) new Dental Colleges. Orders of Provisional Affiliation have been granted to 8 AYUSH institutions, 11 Pharmacy Colleges, 15 Nursing Colleges, 7 Physiotherapy Colleges, 1 Occupational Therapy College and 1 AHS institution in 2020-21. Research Grants are annually provided to 5 Medical, 5 Dental, 5 AYUSH and 5 Allied Health Proposals. Sports grants are annually given to 6 institutions (by turns) for the conduct of sports events. Grants are given for the conduct of Continuing Educational Programmes. The University is positively contributing to the growth of Medical & Health Sciences' Education, while upholding the highest ethical and professional standards.

Thiru.Ma.Subramanian

Minister for Health and
Family Welfare