



**HEALTH AND
FAMILY WELFARE
DEPARTMENT**

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**POLICY NOTE
2016-17**

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INDEX

Sl. No.	Chapter	Page Number
1	Introduction	1-20
2	History	21-24
3	Health Administration	25-29
4	Medical Education	30-51
5	Medical and Rural Health Services	52-56
6	Public Health and Preventive Medicine	57-79
7	Family Welfare Programme	80-90
8	Medical and Rural Health Services (ESI)	91-92
9	Indian Medicine and Homoeopathy	93-115
10	Food Safety and Drugs Administration	116-130
11	Tamil Nadu State Health Transport Department	131-137
12	Human Resources and Medical Services Recruitment Board	138-142
13	State Health Society	143-176
14	Externally Aided Schemes	177-188
15	Comprehensive Emergency Obstetric and Newborn Care Hospitals	189-190

16	Hospital Management Information System and Other E-Governance Initiatives	191-200
17	Tamil Nadu Medical Services Corporation Limited	201-213
18	Tamil Nadu State AIDS Control Society	214-225
19	Tamil Nadu State Blindness Control Society	226-231
20	Revised National Tuberculosis Control Programme	232-240
21	Mental Health Programme	241-245
22	Communicable Diseases	246-274
23	Non Communicable Diseases including State Initiatives and the National Programme for Prevention and Control of Cancer, Diabetes and Cardio- Vascular Diseases	275-279
24	Other National Programme	280-287
25	Geriatric Care	288-289
26	Accident and Trauma Care Centres and '108' Emergency Care Services	290-304
27	Chief Minister's Comprehensive Health Insurance Scheme	305-313
28	Important Acts	314-321
29	Research and Training	322-325

Chapter - 1

INTRODUCTION

அற்றது அறிந்து கடைப்பிடித்து மாறல்ல
துய்க்க துவரப் பசித்து (குறள் 944)

There will be no disaster to one's life if one eats with moderation, food that is not disagreeable.

1.1 Good health is an essential pre-requisite which contributes significantly both to the improvement in overall productivity and human resource development. Universal access of an adequate level of care with equitable distribution and special attention to vulnerable groups such as children, women, differently-abled and the aged is the cornerstone of the State Health Department's approach. The role of Government is crucial for addressing these challenges and achieving equity in health. To achieve this, **under the visionary and far sighted leadership of Hon'ble Chief Minister of Tamil Nadu**, the Government of Tamil Nadu has introduced several landmark schemes and converged more resources on health and nutrition, strengthening health infrastructure to reach world class standard, augmented the medical manpower resources.

1.2 The primary, secondary and tertiary health care delivery systems are being constantly fine tuned in such a way that health care is

delivered efficaciously to all the people in the State. Tamil Nadu is viewed as the ultimate Health care destination in India and has been adjudged the **best State in the Country in terms of deceased organ transplantation and also in providing family planning services apart from achieving other laurels**. Considerable achievements have been made in Tamil Nadu in health indicators like life expectancy at birth, infant mortality rate and maternal mortality rate. **Among the major States, Tamil Nadu ranks 'second lowest' next only to Kerala in terms of Infant Mortality Rate and birth rate, 'third lowest' in terms of Maternal Mortality Ratio and 'fourth highest' in terms of life expectancy at birth. Tamil Nadu is also one of the first States to achieve a low Total Fertility Rate of 1.7 which it has been maintaining consistently.**

State Profile

1.3 Tamil Nadu is the seventh most populous State in the country with a population of 7.78 crore as per estimates of population for the year 2016. The State has 32 revenue districts. For the management of public health services, the State has been divided into 42 Health Unit Districts in addition to the Chennai Corporation. Tamil Nadu has already achieved the National targets and the Millennium

Development goals and is marching towards achieving the goals achieved by the developed nations by the year 2023. Tamil Nadu has already achieved the United Nations Millennium Development goals 2015.

At the United Nations Sustainable Development Summit on 25th September, 2015, the World Leaders adopted 17 Sustainable Development Goals (SDGs) otherwise known as Global Goals built on the Millennium Development Goals (MDG). One of the Goals covers the Health issues and Tamil Nadu is well poised to achieve the indicators in the goal well ahead of other States in India.

Health Care Institutions in Tamil Nadu

1.4 Health services are an important indicator to understand the health care delivery provisions and mechanisms in the State and are subdivided into three categories *viz.* primary, secondary and tertiary health care systems. The Primary Health care System consists of Primary Health Centres (PHCs) and Health Sub-Centres (HSCs). Secondary health care system comprises of District Headquarters Hospitals, Taluk Hospitals, Women and Children Hospitals, Dispensaries, Mobile Medical Units, Police Hospitals and Non-Taluk Hospitals, etc., Tertiary health care system covers multi-speciality hospitals. In addition to Government efforts, the private sector is also contributing to

the provision of Health Care Services. The functioning of the Government run health care systems is set out below:

Government Medical and Health Facilities in Tamil Nadu

Sl. No.	Description	Units
1	Government Medical Colleges	21
2	Hospitals attached with the Medical Colleges	48
3	Tamil Nadu Government Multi Super Speciality Hospital	1
4	Dental College and Hospital	1
5	District Headquarters Hospitals	29
6	Taluk and Non-Taluk Hospitals	239
7	Primary Health Centres (PHCs)	1,765
8	Health Sub Centres (HSCs)	8,706
9	Urban Primary Health Centres (UPHCs)	134
10	UPHCs strengthened under National Health Mission (NHM)	343
11	New UPHCs being established under NHM	77
12	New Community Health Centres (CHCs) being established under NHM	8
13	Employees' State Insurance (ESI) Hospitals	8

14	ESI Dispensaries	195
15	Indian System of Medicine Hospitals and Dispensaries	1,425

1.5 With the network of primary, secondary and tertiary hospitals and a plethora of cross cutting programmes such as the National Health Mission, AIDS Control Society, Maternal and Child Health initiatives, Indian Medicine and other focused programmes and special initiatives, the department is fully involved in implementing the two pronged strategy of prevention and cure to ensure that the health needs of the citizens in our State are taken care of. The department has staff strength of over one lakh persons serving on an average of six lakh out-patients per day and having an in-patient capacity of 82,000 beds. The department also does an average of over 15 lakh surgeries per annum, in addition to various modes of treatment, thus serving the needy people in the best possible manner. Further the State has a robust public private partnership by which the people are able to access the best of the services in the Government and private sector through the landmark Chief Minister's Comprehensive Health Insurance Scheme (CMCHIS), free of cost.

Achievements in the Health Sector

1.6 In addition to the already mentioned achievements in Health outcome indicators like Infant Mortality Rate (IMR), Maternal Mortality Ratio (MMR), Total Fertility Rate (TFR) and the achievements in attaining the national targets and the Millennium Development Goals, the department has several achievements to its credit. While they have been listed in detail in respective chapters, a few of them are listed below.

Chief Minister's Comprehensive Health Insurance Scheme (CMCHIS): Under the CMCHIS, treatment is provided for 1,016 procedures, 23 important diagnostic procedures and 113 follow-up procedures. Smart cards have been issued to 1.58 crore families. Families with an annual income of Rs.72,000 or below are eligible. Sri Lankan refugees living in camps and living outside the camps, but registered as refugees in local police stations are eligible under this scheme without income ceiling. Rs.4 lakh insurance coverage is being provided to each family in a block year (4 years). The families of differently-abled are eligible for enrolment under the scheme without income ceiling. 751 hospitals including all the Government Medical College Hospitals and the District Headquarters Hospitals are empanelled to provide treatment

at free of cost. Since implementation of the scheme totally 15.71 lakh persons were benefitted with an insurance coverage of Rs.3,251.12 crore as on 05.08.2016. Out of this, 6.32 lakh beneficiaries have been treated in Government Hospitals at an Insurance coverage of Rs. 1,158.66 crore.

Corpus Fund for Select Surgeries: Under the scheme, **as announced by Hon'ble Chief Minister**, a corpus fund was created with an initial Government contribution of Rs.10 crore and regular contribution from the insurance receipts in the Government Hospitals, to meet the expenditure towards the specialized surgeries costing more than Rs.1.5 lakh. An additional amount of Rs.25 crore has been allocated. So far, 3,452 approvals have been given to the beneficiaries under this fund.

Amma Baby Care Kit: Amma Baby Care Kit containing 16 materials are given to children born in the Government Health Facilities at an annual cost of Rs.67 crore. So far 5.36 lakh mothers have benefitted under the scheme.

Amma Arokiya Thittam: Hon'ble Chief Minister has inaugurated Amma Arokiya Thittam on 01.03.2016 under which people in the age of 30 years and above are screened for 25 parameters without any charges, on annual basis in the 400 upgraded primary health

centres. Under this program, upto July, 2016, 4,22,756 beneficiaries have been screened.

Amma Whole Body Check-up and Amma Women Special Check-up: Hon'ble Chief Minister has inaugurated the Amma Master Health Check-up and Amma Women Special Health Check-up Programmes on 01.03.2016 in Government General Hospital, Chennai in the first phase.

Dr. Muthulakshmi Reddy Maternity Benefit Scheme: Financial Assistance to pregnant women under the Dr.Muthulakshmi Reddy Maternity Benefit Scheme has been enhanced to Rs.12,000. So far, 34.57 lakh pregnant women have been benefitted to the tune of Rs.3,239.62 crore.

Scheme for Distribution of Priceless Sanitary Napkin: This is another pioneering scheme launched by **Hon'ble Chief Minister** under which Priceless Sanitary Napkins are distributed annually to around 33 lakh Adolescent Girls, Women Prison inmates and inpatients in the Government Mental Hospital under Menstrual Hygiene Programme. Under this programme, an amount of Rs.269.80 crore was allotted from the year 2011 till 2016.

Hospital on Wheels Programme: This programme is implemented from the year 2011-2012 onwards in all the Blocks in the

State with modern Medical and Lab Investigation facilities. Every month 40 camps are conducted in each Block. So far, 5.40 crore persons have benefitted from 8.91 lakh camps. At present, 416 Mobile Medical Units are functioning under this programme.

Non Communicable Disease Prevention, Control and Treatment: Non-Communicable Diseases (NCD) prevention, control and treatment programme has been implemented in 16 Districts during 2012 and extended in the remaining 16 Districts during 2013. Till May 2016, treatment has been provided for 31.76 lakh people for Hypertension, 11.09 lakh people for Diabetic Mellitus, 3.84 lakh women for Cervical Cancer and 1.70 lakh women for Breast Cancer.

Medical Services Recruitment Board (MRB): For the first time in the country, a separate Medical Services Recruitment Board has been established for the Health Department in the State. So far, nearly 14,761 posts in the category of Assistant Surgeons, Nurses and Para-medical staff have been recruited through this board.

Other Personnel in Tertiary Care Hospitals: Under the control of Directorate of Medical Education, 7,109 Sanitary workers, 1,708 security staff, 558 supervisors and 38 managers have been engaged through

outsourcing to provide security, cleanliness and House Keeping in 63 Government hospitals and colleges. Further, 48 hospitals with more than 200 beds under the control of Medical and Rural Health Department, 1,524 sanitary workers, 364 security staff, 58 horticulture assistants, 88 electricians, 83 laundry assistants, 52 mechanics, 119 cooks and 189 supervisors and 48 managers have been engaged through outsourcing.

Other Personnel for Secondary Care Hospitals: 5,521 Multipurpose Hospital Worker posts were filled up at the rate fixed by the respective District Collectors.

Food Safety and Drugs Administration Department: A new Department called "Food Safety and Drugs Administration" has been formed at a cost of Rs.86.35 crore to implement Food Safety and Drug related legislations. 6 Food Analysis Laboratories set up in Guindy, Thanjavur, Madurai, Salem, Palayamkottai and Coimbatore to analyse food samples.

Breast Milk Banks: Breast Milk Banks have been started in eight Government Medical College Hospitals. In 352 Bus stands and Terminals, separate feeding rooms have been established to enable the feeding mothers to breast feed their new born child in a safe enclosed rooms.

Increase of 810 MBBS and additional Post Graduate seats in Medical Education:

During the last five years 810 MBBS seats were increased. New Medical Colleges each with an annual intake of 150 students have been announced for Karur and Pudukkottai Districts. An amount of Rs.229.46 crore to each of the above said Medical Colleges has been sanctioned for construction of buildings. In respect of postgraduate seats, in 2013-14, totally 54 additional Post Graduate seats in 11 Government Medical Colleges, in 2014-15, 7 additional PG seats in three Government Medical Colleges and in 2016-2017, 33 PG seats in six Government Medical Colleges were increased.

Infrastructure Improvement in Tertiary Care Hospitals:

Since May 2011 the Government have so far, sanctioned Rs.1486.98 crore for infrastructure improvement of tertiary hospitals. Apart from completing the new Madras Medical College Building, some of the other important facilities inaugurated and put into use include the Cancer Block in Royapettah Hospital, New Block at Kasturba Gandhi Hospital, New blocks in Institute of Obstetrics and Gynaecology and Institute of Child Health at Egmore, New Tower Block at Stanley College and Centenary Block at Coimbatore and Super Speciality Hospital at Tiruchirapalli and eight Comprehensive

Emergency, Obstetric and New-born Care (CEmONC) buildings among other facilities. Reproductive and Child Health Centres of Excellence in Mohan Kumaramangalam Medical College Hospital, Salem has been inaugurated and another at one Government Medical College Hospital, Madurai at a cost of Rs.51.22 crore will be completed soon. Setting up of Centre of Excellence in Tiruchirapalli and Tirunelveli Government Medical College Hospital and Raniyar Maternity Hospital at Pudukkottai at a cost of Rs.20 crore each is under progress. Further, operation theatres in Tirunelveli, Coimbatore, Thanjavur and Chengalpattu Government Medical College Hospitals were modernized at a cost of Rs.20 crore. A new Government Nursing College was established at Periyakulam in Theni district at a cost of Rs.12.30 crore.

Tamil Nadu Government Multi-Super Speciality Hospital: This institution has been set up at Omandurar Government Estate at a cost of Rs.143.14 crore with 9 super specialities and 400 beds and it is functioning from 21.02.2014.

Establishment of other Super Speciality Hospitals with Trauma Care Centres: In addition to Salem, where it is fully functional and Madurai where it is at an advanced stage of completion, such hospitals are being

established in Government Medical College Hospital, Thanjavur and Tirunelveli at a cost of Rs.150 crore each under Pradhan Mantri Swasthya Suraksha Yojana Scheme.

King Institute of Preventive Medicine and Research: A sum of Rs.16.72 crore has been allotted to revive the vaccine production and set up Tissue Bank at the King Institute of Preventive Medicine and Research at Guindy, Chennai and the facility has been inaugurated by the **Hon'ble Chief Minister** on 05.08.2016.

Centre of Excellence in Dental College: A new building at a cost of Rs.13.66 crore has been constructed for the Government Dental College Hospital, Chennai. The Dental hospital has been upgraded in to a Centre of Excellence at an estimate of Rs.10 crore.

State Level and Regional Cancer Centres: Adyar Cancer Institute in Chennai is functioning as State Level Higher Treatment Centre for Cancer and orders have been issued to upgrade it as Centre of Excellence at a cost of Rs.120 crore. Four Regional Cancer Centres are being established in Government Rajaji Hospital, Madurai at a cost of Rs.14.26 crore, Coimbatore Government Medical College Hospital at a cost of Rs.14.37 crore, Thanjavur Government Medical College Hospital at a cost of Rs.15 crore and Tirunelveli Government

Medical College Hospital at a cost of Rs.15.06 crore.

Equipment Purchase: Various medical equipment worth Rs.968 crore were purchased for use by various Government facilities.

Upgradation of Burns Wards: Burns ward at Sivakasi Government Hospital and Kilpauk Medical College Hospital have been constructed at a cost of Rs.4.50 crore and Rs.6.89 crore respectively and the hospitals have been upgraded as 'Centre of Excellence' for burns. Building constructed for the Government Hospital, Sivakasi and Centre of Excellence for Burns Ward at Kilpauk Medical College Hospital, Chennai were inaugurated by the **Hon'ble Chief Minister** on 25.06.2014 and 01.03.2016 respectively.

New and Upgraded Primary Health Centres: In the past five years, 172 New Primary Health Centres established at a cost of Rs.134.40 crore. 15 new PHCs have been established in the current year. Another 37 new Primary Health Centres will also be started during the year 2016-17. 122 Primary Health Centres were upgraded with 30 beds, Ultra Sonogram, Operation facility, etc., at a cost of Rs.131.16 crore. Action has been taken to upgrade 7 PHCs in the current year. Another 24 existing Primary Health Centres will be upgraded as 30 bedded PHCs during the year

2016-17. Apart from it, under National Urban Health Mission, 40 New Urban PHCs in Chennai Corporation and 37 New Urban PHCs in 75 Municipalities and 12 Corporations are being established. 100 existing Urban Health Posts in Chennai Corporation and 243 existing health posts in 12 Corporation and 75 Municipalities are being upgraded as Urban Primary Health Centres. In Chennai city seven health facilities are being upgraded as Urban Community Health Centres and Eight new Urban Community Health Centres are being established. These urban structures will totally transform the Urban Primary Health care available to the people in our State.

Laptops for Village Health Nurses: Laptops have been given to 9,397 Village Health Nurses to computerize the details of pregnant women, registered under Dr.Muthulakshmi Reddy Maternity Benefit Scheme, on daily basis at a cost of Rs.19.17 crore.

Maternity and Child Health Centres: Such centres were established in 42 PHCs at a cost of Rs.19.45 crore.

'104' Service: Health Helpline-cum-Telemedicine '104' service has been introduced on 30.12.2013 for providing free access to health information, health guidance and grievance redressal facility. So far, 16.82 lakh

calls received from the public and health information provided.

Strengthening of '108' Emergency Care Services: 763 ambulances and 41 First Responder Bikes are in operation under '108' Emergency Ambulance Service and as on date 42.79 lakh people benefitted, including 11 lakh pregnant mothers and 1.01 lakh neonates. Neonatal emergency ambulance service has been introduced to reduce child mortality rate. 78 number of Four Wheel Drive Ambulances are in operation in hilly areas. Bike ambulance has been introduced to augment emergency care in crowded areas in Chennai City in the first phase.

Strengthening of Indian Medicine: For improving infrastructure facilities in Palayamkottai Siddha Hospital and Kanniyakumari Ayurvedic Medical College Hospital, Rs.5 crore each has been sanctioned. Rs.11.70 crore has been allotted for providing improvement at the Arignar Anna Government Siddha Medical College Hospital. Rs.15 crore has been allotted for upgradation of six Government Indian Systems and Homeopathy Medical College Hospitals in the State and appointment of required staff. Establishment of Research and Development Wing exclusively for Indian Systems of Medicine at a cost of Rs.12 crore and improvement of infrastructure

of TAMPCOL at a cost of Rs.2 crore has been ordered. An amount of Rs.2.50 crore has been allotted for creation of awareness and prevention of non-communicable diseases using Indian Systems of Medicine. In all Medical College Hospitals and District Headquarters Hospitals, Yoga and Naturopathy clinic have been established at a cost of Rs.9.6 crore. A Corpus Fund has been created with Rs.2 crore for publication of text books and periodicals in Indian Systems of Medicine. Government Doctors of Indian Systems of medicine are sponsored to undergo post graduate course in other State Colleges with full pay and allowances. The monthly pension of the registered hereditary Indian medicine practitioners enhanced from Rs.500/- to Rs.1,000/-, at an additional expenditure of Rs.5.74 crore per annum.

State Efforts at Convergence in Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome (HIV/AIDS) care: Because of sustained efforts of the State in making awareness, care and support, the prevalence of HIV/AIDS has come down below national level prevalence and it paves the way for maximum reduction in deaths due to HIV/AIDS. Further, 5,738 farmers suffering from HIV/AIDS have been sanctioned a monthly pension of Rs.1,000/- under the Hon'ble Chief Minister's Uzhavar Padhukappu

Thittam. Under Hon'ble Chief Minister's Green Housing Scheme, 22 People Living with HIV (PLHIV) families have been provided support. 22,406 PLHIVs have been provided free bus pass to get medicines from Anti-Retroviral Treatment (ART) Centres.

Establishment of Reverse Osmosis Plants:

Reverse Osmosis Plant are being established at a cost of Rs.24.50 crore in 45 Government Hospitals attached to Government Medical College and Dental College, all District Headquarters Hospitals and all Taluk and Non Taluk Hospitals.

Ban on Manufacture, Storage, Distribution and Sale of Chewing Tobacco, Gutkha and Pan Masala Containing Tobacco or Nicotine:

The Government banned the manufacture, storage, distribution and sale of chewing tobacco, gutkha and pan masala containing tobacco or nicotine in any form or as ingredients by whatever name or sold in Tamil Nadu.

1.7 The Government is increasing the Budget to the Health Sector every year substantially. Rs.9072.72 crore have been provided in the budget for 2016-17. The Directorate wise allocation for 2016-17 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	9.69
2	Directorate of Medical and Rural Health Services	1032.12
3	Directorate of Medical Education	2494.22
4	Directorate of Public Health and Preventive Medicine	2488.01
5	Directorate of Family Welfare	178.45
6	Tamil Nadu Food Safety and Drug Administration	67.87
7	Directorate of Indian Medicine and Homoeopathy	254.73
8	Tamil Nadu State Health Transport Department	29.81
9	Reproductive and Child Health Project	1322.12
10	Tamil Nadu Health Systems Project	1195.70
	Total	9072.72

Note:

1. Apart from the above provision, Rs.327.93 crore has been allocated towards Civil Works being undertaken by Public Works Department under Demand No.39.

2. Provision towards ESI Scheme Hospitals for Rs.305.94 crore have been made in the Labour and Employment Demand No.32.

1.8 The thrust areas and schemes listed above are only a tip of the multi-various activities, programmes and schemes under the health sector. These have been elaborated further in detail in the succeeding chapters.

Chapter – 2

HISTORY

2.1 Roots of modern medicine are linked to the advent of the Britishers. It is believed that the first British Hospital was established in 1639 to treat the sick soldiers of the East India Company. The origin of the modern Government Hospital has been traced back to 1644, when it was started as a small hospital which has now grown into the prestigious General Hospital attached to the Madras Medical College. However, our ancient Indian System of Medicine “Siddha” and “Ayurveda” are in practice for over thousands of years. Siddha System of Medicine has been recorded to have been practiced by the eighteen Siddhars and that is why it is called “Siddhar Maruthuvam”. Sushruta and Charaka were the pioneers of Ayurveda. History tells us that there were well organized hospitals even during the days of Buddha and Ashoka. In respect of Medical Colleges, the Madras Medical College was inaugurated on 3rd February, 1835, next to the Calcutta Medical College, which was started on 28th January, 1835. The Eye Hospital, Egmore, attached to the Madras Medical College, is the second eye hospital in the World and it was started in 1819, a year after the first eye hospital was inaugurated in London in 1818. Madras Medical College was also the first Medical College in the World to admit a lady

student, Mary Ann Dacomb Scharlieb in 1878. Later, she started the Kasturba Gandhi Hospital (KGH-Gosha Hospital) at Triplicane in 1885. **Dr.Muthulakshmi Reddy was the first Indian woman to graduate in 1912 from this college** and in 1954 she started the Adyar Cancer Institute. The origin of the Dental Department in the Government Hospital dates back to 1883 when the Madras Education Department initiated a clinic in the Government hospital for treating patients with dental problems and it was run by a Royal Army Dental Assistant. The Dental Wing of Madras Medical College came into existence on 10th August, 1953. The erstwhile dental wing of the Madras Medical College was inaugurated on 10th August, 1953 by the Dean, Madras Medical College, Dr. Lt. Col. C.K. Prasada Rao. 15 candidates were selected in the first batch of BDS Course and this number was increased to 18 in the year 1954 and 20 in the year 1956 and periodically increased to the present intake of 100 seats.

2.2 The Civil Medical Service was separated and established under the management of a Head of the Department called as "Surgeon General with the Government". That post was subsequently re-designated as Director of Medical Services (DMS) during 1960. Medical Services Department was bifurcated and the Department of Medical Education was formed in

the year 1966. Similarly Department of Indian Medicine was established in the year 1976 and the Department of Drugs control in November, 1981. The Family Welfare Scheme, which was dealt by the Medical Services Department, was separated and an independent Department of Family Welfare was formed in 1983, to look after the Family Welfare Scheme.

2.3 The Directorate of Public Health and Preventive Medicine was formed during 1923 with the main objectives of providing Maternal and Child Health care to the rural and urban population and for the prevention and control of communicable diseases. Lieutenant Colonel A.T.H. Russell was the first Director of Public Health and Preventive Medicine in the Pre-independent era. Public Health Act, 1939 is the legal instrument enacted before independence of the country which empowers the Health Officers to enforce public health law to safeguard the health of the people. This is currently being reviewed and will be amended to reflect the latest felt needs of the Public Health Sector. During 1965, the Primary Health Centres were separated from the Medical Services Department and brought under the Public Health Department. The Public Health and Preventive Medicine Department is functioning with 42 Health Unit Districts each unit under a Deputy Director of Health Services. The State Health Transport

Department, which was with the Public Health Department, was separated and a Directorate of Health Transport was formed on 15.07.1981. A separate Drug Control Department was started during the year 1981.

2.4 The Tamil Nadu Medical Services Corporation was started in 1994 as a Corporation to streamline the drugs and equipment supply and has gone on to become the model for the country. Similarly starting as an AIDS cell a separate society was registered to address the challenges posed by the HIV/AIDS infection in the year, 1994. In the year 2005 State Health Society was registered along with district societies to implement the National Rural Health Mission and in 2013 Urban Health Mission has been started as a Sub Mission under the newly Integrated National Health Mission. A separate Food Safety Department has been started since 2011 to implement food safety and standards.

Chapter - 3

HEALTH ADMINISTRATION

3.1 The Health and Family Welfare Department in the Secretariat is administratively responsible for the following Directorates:-

- Directorate of Medical Education
- Directorate of Medical and Rural Health Services
- Directorate of Public Health and Preventive Medicine
- Directorate of Indian Medicine and Homoeopathy
- Directorate of Family Welfare
- Directorate of Food Safety and Drugs Control Administration
- Directorate of State Health Transport Department
- Medical Services Recruitment Board

Apart from these Directorates, the staff for the Directorate of Medical Services (ESI) under the Labour and Employment Department are sent from Health Department.

Other Programmes and Initiatives

3.2 The Directorates are supported by a number of other initiatives which are implemented across the Directorates such as National Health Mission - State Health Society, Tamil Nadu State AIDS Control Society, Tamil Nadu Blindness Control Society, the Revised National Tuberculosis Programme, National Mental Health Programme, National Vector Borne Diseases Control Programme, Universal Immunization Programme and School Health Programme among others are implemented. While the Tamil Nadu Health Systems Project has come to a close in the last financial year and handing over of the project is being followed up, the State is embarking on a new project strengthening the urban Health care with the assistance of Japan International Co-operation Agency (JICA). These have been explained in detail in subsequent chapters.

Councils

3.3 The following councils are established through various acts 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 Council

- iv. Tamil Nadu Pharmacy Council
- v. Tamil Nadu Siddha Medical Council
(Siddha & Traditional practitioners)
- vi. Board of Indian Medicine (Ayurveda,
Unani and Yoga & Naturopathy)
- vii. Tamil Nadu Homoeopathy Council

These are all the Statutory Bodies regulated by Government of India and Government of Tamil Nadu. Apart from this, there is also a Government order for constituting a Physiotherapists Council in the State.

Classification of Hospitals and Dispensaries

3.4 Government of Tamil Nadu provides preventive and curative care to all, through various hospitals, dispensaries and institutions. The State has a variety of categories of hospitals. The classification of hospitals and dispensaries in the State are as follows:

- i. **State–Public Medical Institutions:** All Medical institutions – Allopathy and Indian System of Medicine maintained through State funds and are directly managed by the Government. These form the backbone of the health care. It ranges from the grassroot level - 8,706 Health Sub Centres catering to an average population of 5,000 to the 1,765

PHCs 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.

- ii. **State–Special Medical Institutions:** All institutions intended to serve special sections of public such as Police, State owned Corporations / Undertakings, Employees State Insurance Medical Institutions etc.
- iii. **Medical Institutions under the Local Bodies:** These Medical Institutions are under the management of Municipal Corporations, Municipalities and Panchayat Unions. With the State taking over most of these facilities they are now very few in number especially in rural areas. Conversion of the remaining rural medical institutions to Government medical institutions is under the active consideration of the Government. Urban Primary health care centres have now been started to augment the primary health care of the rapidly expanding urban population.
- iv. **Private Aided Medical Institutions:** Institutions supported / guaranteed by private contribution and receiving Government aid as well.

- v. **Private Non-Aided Medical Institutions:** All hospitals, dispensaries and clinics solely managed by private persons / establishments.

Tamil Nadu Dr.M.G.R. Medical University

3.5 The Government of Tamil Nadu established this Medical University in the year 1987 by passing the Tamil Nadu Medical University Act, 1987 (Act No.37/1987). The name was later amended as the Tamil Nadu Dr.M.G.R. Medical University and the University is functioning from July, 1988. This University is relentlessly working to fulfill a number of objectives including improving the standards in medical and para-medical education, medical research in addition to making an impact on the progress of Health Care.

Chapter – 4

MEDICAL EDUCATION

4.1 Health care facilities in the State are broadly classified under the three categories. The Directorate of Public Health and Preventive Medicine, provides for the Health care facilities for the Patients at the Primary level. The Directorate of Medical and Rural Health Services, serves as the Secondary Health care provider and the Directorate of Medical Education serves as the Tertiary Health care provider and plays a pivotal role in providing quality medical and para medical services to cater the health 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. It is managing the Medical Colleges and teaching Hospitals attached to them.

Administrative Structure

4.2 The Director of Medical Education is the head of the Directorate and is responsible for the administration of the Government Medical Colleges and the tertiary care hospitals and Super specialty hospitals attached to the Directorate. The details of Government Medical Colleges and Government Medical allied Institutions under the control of Directorate of Medical Education are mentioned below:-

- Deans, Government Medical Colleges and Hospitals.
- Director, Government Institute of Rehabilitation Medicine, Chennai.
- Director, Institute of Child Health and Hospital for Children, Chennai.
- Director, Institute of Thoracic Medicine, Chetpet, Chennai.
- Director, Institute of Mental Health, Chennai.
- Director and Superintendent, Institute of Obstetrics and Gynaecology and Government Hospital for Women and Children, Chennai-8.
- Director and Superintendent, Institute of Social Obstetrics and Government Kasturba Gandhi Hospital for Women and Children, Chennai-5.
- Director, Regional Institute of Ophthalmology and Government Ophthalmic Hospital, Chennai.
- Director, King Institute of Preventive Medicine and Research, Guindy, Chennai.
- Principal, Tamil Nadu Government Dental College and Hospital, Chennai.
- Principal, Government College of Physiotherapy, Tiruchirappalli.

- Superintendent, Government Hospital for Thoracic Medicine, Tambaram, Chennai.
- Superintendent, Government Thirvotteswarar Hospital for Thoracic Medicine, Otteri, Chennai.
- Chief Medical Officers of Peripheral Hospitals attached to Teaching Hospitals.
- Medical Officers of Dispensaries attached to Teaching Hospitals.
- Principals of other Colleges.
- Director, Tamil Nadu Multi Super Speciality Hospital, Omandurar Government Estate, Chennai.

These are manned by the Deans, Directors, Superintendents and Principals respectively

4.3 The total bed strength in the Government Medical College Hospitals and allied Institutions is 32,409 and an average outpatient census of 77,274 persons are attended per day and 27,600 persons as inpatients per day.

4.4 The Directorate of Medical Education plays a vital role in providing quality education in the field of Medical, Para Medical, Nursing and Pharmacy. The intake capacity of the Government Medical Institutions for Under Graduate and Diploma courses are furnished hereunder:

Name of the Course	Number of Seats
M.B.B.S. (including 100 seats in ESIC, Coimbatore)	2,750
B.D.S.	100
B.Sc. Nursing	250
Post Basic (B.Sc. Nursing)	90
B.Sc. Radiology and Imaging Technology	60
B.Sc. Radiotherapy Technology	20
Bachelor of Physiotherapy	50
Bachelor of Cardio Pulmonary Perfusion Technology	10
B.Pharm. (including lateral entry 10%)	132
Bachelor of Audio and Speech Language Pathology	25
Diploma in Nursing	2,000
Diploma in Pharmacy	240
Para Medical courses (23 courses)	7,086

(These are subject to respective council approvals for annual admission and vary from year to year)

4.5 The details of Post-Graduate and Speciality courses available in the Government Medical Institutions in Tamil Nadu are as follows:-

Courses	Number of Specialities	Total intake capacity*
P.G. Degree (Medical)	24	789
P.G. Diploma (Medical)	15	396
M.D.S. (Dental)	8	40
Higher specialities	17	189
M.Pharmacy	4	64
M.Sc. (Nursing)	5	65
M.Phil. (Clinical Social work)	1	15
M.Sc. (Molecular Virology)	1	21

(*These are subject to respective council approvals for annual admission and vary from year to year.)

4.6 Besides the Government Colleges, the private self financing institutions affiliated to the Tamil Nadu Dr.M.G.R. Medical University are providing Medical and Para Medical Education in the State. The details of the total number of seats surrendered by private self financing colleges for allotment by the Government are as follows:-

College	No. of Colleges	Number of Seats*
Medical College (2015-2016)	9	681
Dental College	17	970
Pharmacy College (B.Pharm.)	32	1,271
Physiotherapy College (BPT)	22	680
Nursing College (B.Sc.)	147	5,238
Occupational Therapy College (BOT)	2	66
D.Pharm to B.Pharm (Lateral entry 10%)	30	184
Post Basic B.Sc. (Nursing)	50	1,023

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

4.7 Admission Policy in Medicine and Opposition to NEET: The selection to MBBS / Bachelor of Dental Surgery (BDS) / B.Sc. Nursing / Bachelor of Pharmacy (B.Pharm) as well as Diploma Courses in Nursing and Pharmacy (for Government schools and colleges) is done by the Selection Committee under a Single Window System following the

rule of reservation in accordance with the Policy of the Government. The State has been consistent in its opposition to National Eligibility cum Entrance Test (NEET) for under-graduate (MBBS/BDS) admissions as it follows the policy of admission to the Professional Courses in Medicine in the State based on the marks obtained in the relevant subjects of the Plus Two examinations. Admission to Post Graduate Diploma, Post Graduate Degree and Master of Dental Surgery (MDS) and Higher Speciality Courses is done by the Selection Committee through a common entrance examination conducted by the State Government duly followed by counselling, duly following the rule of reservation. Currently the main case on NEET is pending review in the Supreme Court. Tamil Nadu has been taking all steps to ensure that there is no interference in its policy on Medical and Dental College admissions, at Under Graduate and Post Graduate levels in respect of State's quota. The recent developments providing for exemption from NEET for this academic year (2016-17) in respect of State Government seats (whether in a Government Medical College or in a Private Medical College) at the under graduate level has temporarily addressed a part of the issue. In the memorandum submitted by the Hon'ble Chief Minister to the Hon'ble Prime Minister on 14.06.2016 this issue has been highlighted.

The State Government is continuing to take all steps to safeguard its stand.

4.8 New Government Medical College and increase of under graduate and post graduate medical seats:

Of 32 Districts in Tamil Nadu, at present 21 Government Medical Colleges are functioning in the 17 Districts. In addition to the above, Government have already issued orders for establishing the new Government Medical Colleges with an annual intake of 150 MBBS students, in the Districts of Pudukkottai and Karur. Government have issued administrative and financial sanction for the construction of buildings for colleges/hospitals each at a cost of Rs.229.46 crore. In the remaining districts, Government will examine the establishment of new Government Medical Colleges, in a phased manner. Because of the efforts of the State Government, totally 810 number of M.B.B.S. seats have been increased in the last five years. Currently, there are 2750 M.B.B.S. seats in the Government Medical Colleges. The details of increase of MBBS seats are furnished below:-

Sl. No.	Name of the Government Medical College	No. of MBBS seats increased
1.	Government Sivagangai Medical College.	100

2.	Government Thiruvannamalai Medical College.	100
3.	Government Medical College 'Block-B', Omandurar Government Estate, Chennai.	100
4.	Government Kilpauk Medical College, Chennai.	50
5.	Government Chengalpattu Medical College, Chengalpattu.	50
6.	Government Stanley Medical College, Chennai.	100
7.	Madras Medical College, Chennai.	85
8.	Government Mohan Kumaramangalam Medical College, Salem.	25
9.	Government KAP Viswanatham Medical College, Tiruchirappalli.	50
10.	Government Thoothukudi Medical College, Thoothukudi.	50
11.	Government Medical College and ESIC Hospital, Coimbatore.	100
	Total	810

4.9 Starting and increase of post graduate seats in 2016-2017: In the current year alone 25 new seats and increase of 8 seats were approved by the Medical Council of India.

Sl. No.	Name of the College	Name of the course	Increase of PG seats
1.	Government Stanley Medical College, Chennai.	MD (Community Medicine)	5
		MD (TB and RD)	1 (from 2 to 3)
2.	Government Chengalpattu Medical College, Chengalpattu.	MD (Psychiatry)	3
		MD (Paediatrics)	2 (from 2 to 4)
3.	Government KAP Viswanatham Medical College, Tiruchirappalli	MD (Psychiatry)	1
4.	Government Mohan Kumaramangalam Medical College, Salem	MD (Psychiatry)	1
		MD (Biochemistry)	3
		MD (Pathology)	6

5.	Government Coimbatore Medical College, Coimbatore	MS (ENT)	2 (from 1 to 3)
		MS (Ortho)	3 (from 3 to 6)
6.	Government Theni Medical College, Theni	MD (Anesthesia)	6
Total			33

Further in Stanley Medical College under M.Ch. (Vascular surgery) course, increase of seats from one seat to two was obtained.

SUPER SPECIALITY SERVICES IN GOVERNMENT HOSPITALS

4.10 Tamil Nadu Government Multi Super Speciality Hospital: The **Hon'ble Chief Minister** inaugurated the Tamil Nadu Government Multi Super Speciality Hospital, Omandurar Estate, Chennai on 21.02.2014 and is functioning with sophisticated equipment. This Multi Super Speciality Hospital has been established with 400 beds with the following specialities:-

Sl. No.	Departments	Beds
1.	Cardiology (100 beds)	120
2.	Cardio Thoracic Surgery (20 beds)	
3.	Hand and Reconstructive Microsurgery	30
4.	Medical Oncology	100
5.	Surgical Oncology	
6.	Neurology	60
7.	Neuro Surgery	
8.	Vascular Surgery	30
9.	Post operative care and ICU	60
	Total	400

In this hospital, Interventional Radiology is functioning with the following facilities viz. **Aneurysm clipping, AVMs (Arteio-venous Malformation - coil embolization, EVAR (Endo-vascular aneurysm repair for abdominal aortic aneurysm) Procedures.**

4.11 Trauma Care Centre at Mahatma Gandhi Memorial Government Hospital, Tiruchirappalli: A Trauma care centre with Super Speciality block has been established to provide Super Speciality services to the people

in and around Tiruchirappalli area. A sum of Rs.21.78 crore has been sanctioned towards the purchase of equipment through Tamil Nadu Medical Services Corporation Limited, Chennai for this facility.

4.12 Super Speciality Hospitals under Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) Scheme: Super Speciality Hospitals are also being established under PMSSY Scheme at Madurai, Thanjavur and Tirunelveli at a cost of Rs.150 crore each. This scheme involves both Central and State share of Rs.125 crore and Rs.25 crore respectively for the following components:

Super Specialty Hospital at Madurai

Project Component	Central Government	State Government
	(Rs. in crore)	
Medical Equipments	29.95	25.00
Buildings: Super Speciality Hospital including connecting corridor	81.05	--
Consultancy fees/Contingencies	14.00	--
Total	125.00	25.00

Super Speciality Hospitals at Thanjavur and Tirunelveli

(Rs. in crore)

Project Component (for each Institute)	Central Governm ent	State Govern ment
Medical Equipments	25.00	30.00
Buildings: Super Speciality Hospital including connecting corridor	80.00	--
Consultancy fees/Contingencies	15.00	
Total	120.00	30.00

4.13 Upgradation of Government Dental College and Hospital, Chennai as Centre of Excellence in Dentistry:

The Government Dental College and Hospital, Chennai, has been upgraded as Centre of Excellence in Dentistry at a cost of Rs.10.00 crore. Under the above scheme, second floor of the new multi-storied building was constructed at a cost of Rs.6.00 crore and was inaugurated by Hon'ble Chief Minister on 07.09.2015. A sum of Rs.1.51 crore has been sanctioned towards the procurement of equipment and formation of e-Library through Tamil Nadu Medical Services Corporation, Chennai. Twenty seven Dental teaching posts of various categories, three

Medical teaching posts and two non medical posts have been created for the effective functioning of Centre of Excellence.

4.14 Centre of Excellence for Reproductive and Child Health: Apart from one of the Centre of Excellence each at Institute of Obstetrics and Gynaecology and Government Hospital for Women and Children, Chennai, Government have accorded permission to set up two additional Reproductive and Child Health Centres of Excellence in Government Mohan Kumaramangalam Medical College Hospital, Salem and Government Rajaji Hospital, Madurai from the funds provided by the Government of India @ Rs.51.22 crore each for the following components:

Name of the components	Rupees in Crore
RCH centre of excellence Buildings	40.00
Hostel Building	6.00
Furniture and Equipment for Hostel	0.50
Furniture and equipment for RCH centre	4.72
Total	51.22

The facility has been inaugurated at Salem. The facility at Madurai will be inaugurated soon.

4.15 Strengthening of Maternal and Child Health (MCH) wing in Tiruchirapalli, Tirunelveli and Pudukkottai: For strengthening of Maternal and Child Health wing, Government have sanctioned a sum of Rs.18 crore for construction of new building and Rs.2 crore for procurement of equipment, to strengthen the Maternal and Child Health wing at Pudukkottai. Government have sanctioned a total sum of Rs.40 crore for construction of building for strengthening the Maternal and Child Health wing in the Tirunelveli Medical College Hospital and at Mahatma Gandhi Memorial Government Hospital, Tiruchirapalli.

4.16 Centre of Excellence for upgradation of burns centre in Government Kilpauk Medical College Hospital, Chennai: For Upgradation of Burns centre as Centre of Excellence in Kilpauk Medical College Hospital, Chennai, Government have sanctioned a sum of Rs.5.00 crore for the following components:-

Sl. No.	Name of the component	Rs. in crore
1	Buildings	2.74
2.	Equipment and furniture	1.08
3.	Creation of new Posts	1.03

Further Government have sanctioned a sum of Rs.4.15 crore for construction of additional two floors, Head room and lift Machine rooms in the third floor above the burns centre building at the Government Kilpauk Medical College Hospital, Chennai. Hon'ble Chief Minister inaugurated the building on 01.03.2016.

4.17 Modernisation of "State of art" Liver Transplantation Operation Theatre at Government Stanley Hospital, Chennai:

The Liver transplant Theatre at Institute of Gastroenterology has been renovated recently as a "State of art" Operation Theatre. The transplant theatre has been renovated on par with International standards. Various High end equipment and gadgets have been added to make it a "State of art" Theatre. Some of the older equipment have also been replaced. The renovated building was inaugurated by the Hon'ble Chief Minister.

4.18 Regional Cancer Centres: Four Regional Cancer Centres established at Government Rajaji Hospital, Madurai at a cost of Rs.14.26 crore, Coimbatore Medical College Hospital at a cost of Rs.14.37 crore, Thanjavur Medical College Hospital at a cost of Rs.15.00 crore, and Tirunelveli Medical College Hospital at a cost of Rs.15.06 crore. Construction of building works in all the above four centres are in progress.

4.19 Upgradation of Cancer Institute, Adyar as a State Cancer Institute: Under the scheme of National Programme for Prevention and Control of Cancer, Diabetes, Cardio-Vascular Diseases and Stroke (NPCDCS) from Government of India with State Contribution, the Adyar Cancer Institute is being upgraded as the State Level Apex Centre at a cost of Rs.120 crore. Accordingly, a sum of Rs.89.84 crore, being the first instalment have been released to the Director, Adyar Cancer Institute, Chennai (State share: Rs.22.46 crore and Central share Rs.67.38 crore)

4.20 O.P. Block at Institute of child Health and Hospital for children under (JICA Scheme) Japan International Co-operation Agency: Construction of a new out-patient block at Institute of Child Health and Hospital for Children, Chennai at a cost of Rs.91 crore with the grant-in-aid from Japan International Co-Operation Agency (JICA). Upon completion, it is expected to provide State-of-Art out-patient facilities to the historic and renowned hospital which attracts patients all over South India.

4.21 Setting Up of Amma Master Health Check Up and Amma Women Special Master Health Check Up: In the Government General Hospital, Chennai, Amma Master Health Check up and Amma Women special

Master Health check up have been inaugurated by Hon'ble Chief Minister on 01-03-2016 which provides for the following package of tests. The cost package of the above scheme is tabulated below:-

Package – I (Rs.1000) (Rupees One Thousand only)	Package – II (Rs.2000) (Rupees Two Thousand only)	Package – III (Rs.3000) (Rupees Three Thousand only)
Complete hemogram, ESR, Urine analysis	Package I + Echocardiogram, PSA, Thyroid profile and HbA1c	Package II + Digital Mammogram, Dexa Scan, Bone profile (Vitamine D, Calcium, phosphorous and PTH)
Blood sugar F&PP urea, Creatinine, Uric Acid		
<u>Lipid profiles</u> Total cholesterol, HDL, LDL, Triglycerides, total cholesterol/HDL ratio		
<u>Liver Function Test</u> Serum bilirubin (total and direct) AST, ALT, SAP, Total protein and albumin		
HbsAg		
Blood grouping and typing		
ECG		
X-ray chest		
USG abdomen		
Pap smear		

4.22 King Institute of Preventive Medicine and Research, Guindy, Chennai: King Institute of Preventive Medicine was established on 07.11.1899. A sum of Rs.16.72 crore allotted to revive vaccine production and set up Tissue Bank for the manufacture of

Anti Snake Venom Serum and provision of Heating, Ventilation and AC (HVAC) facilities.

4.23 Breast Milk Banks: For the first time in Tamil Nadu in August 2014 Breast Milk Bank has been established at Institute of Child Health and Hospital for Children, Chennai. For further development, the **Hon'ble Chief Minister** has inaugurated Breast Milk Banks on 3.8.2015 in the following eight Medical Institutions :-

- i. Institute of Obstetrics and Gynaecology and Government Hospital for Women and Children, Chennai.
- ii. Government Rajaji Hospital, Madurai.
- iii. Coimbatore Medical College Hospital, Coimbatore.
- iv. Government Mohan Kumaramangalam Medical College Hospital, Salem.
- v. Mahatma Gandhi Memorial Government Hospital, Tiruchirapalli.
- vi. Government Raja Mirasdar Hospital, Thanjavur.
- vii. Theni Medical College Hospital, Theni.
- viii. Government District Headquarters Hospital, Dindigul.

4.24 Creation of New Departments:

Government have upgraded the existing Minimal Access Surgery Unit in Madras Medical College, Chennai, as Department of Minimal Access Surgery, Madras Medical College, Chennai. A sum of Rs. 1.46 crore and Rs.25.83 lakh have been sanctioned towards the purchase of equipment and furniture respectively. A new Department of Cosmetology in Stanley Medical College, Chennai is functioning effectively. The Department of Arthroscopy and Sports Injury has been established in the Tamil Nadu Government Multi Super Speciality Hospital, Chennai as a separate Unit along with the equipment and the Post of Associate Professor heading the Unit. Minimal Access Surgery unit has been established in Mahatma Gandhi Memorial Government Hospital, Tiruchirappalli. In Chennai, there are two Vascular Surgery Departments in Kilpauk Medical College Hospital, Chennai, one at Kilpauk Medical College Hospital, Chennai, and another at Government Royapettah Hospital, Chennai. Apart from this, Vascular Surgery Departments are also functioning at Government General Hospital, Chennai, and at Tamil Nadu Government Multi Super Speciality Hospital, Chennai. Now, Vascular Surgery Department has been started in Thanjavur Medical College Hospital, Thanjavur. Government have accorded sanction of posts required for starting

of M.D. (Psychiatry) course in the Government Medical Colleges at Chengalpattu, Salem and Tiruchirappalli. Government have accorded sanction of posts required for starting of M.D. (Anaesthesia) course in Theni Medical College, Theni. Government Peripheral Hospital, Tondiarpet, Chennai, is also known as "Chinna Stanley", which caters treatment facilities to the needs of the people in and around North Chennai locality. Many diabetic patients in and around the area, especially from poor and lower middle class come to the hospital to avail the treatment. Government have issued orders for creation of Diabetic Department with 150 beds in the Government Peripheral Hospital, Tondiarpet, Chennai and initially 30 beds has been earmarked for starting Diabetic Department exclusively by creating the following Posts :-

Sl. No.	Name of the Post	No. of posts
1	Associate Professor	1
2	Assistant Professor	1
3	Staff Nurse	4

Chapter – 5

Medical and Rural Health Services

5.1 The Directorate of Medical and Rural Health Services is responsible for providing secondary level medical care to the public and its Director serves as the Appropriate Authority under many of the Health Acts. It has a history for more than 93 years. The State has strived to constantly upgrade the facilities of multifarious speciality medical care with a view to provide State of art referral care to cater the needs of the public through its network of hospitals located across the State.

District Headquarters Hospitals	29
Taluk Hospitals	168
Non-Taluk Hospitals	79
Dispensaries	11
Women and Children Hospitals	7
TB Hospitals / Sanatorium	2
Leprosy Hospitals	7
Total	303

5.2 The Directorate has also served as an effective bridge between Primary care at the grassroot level and the tertiary care available at the Medical College Hospital level.

Simultaneously, this Directorate of Medical and Rural Health Services has also strengthened the services of the Comprehensive Emergency Obstetrics and Newborn Care (CEmONC) in 104 hospitals including all District Headquarters Hospitals and Newborn Stabilization Units (NBSUs) in 114 Hospitals and Sick Neo-Natal Care Units (SNCUs) in 42 Hospitals exclusively for the Maternity and Child Welfare. The Hospitals under the control of this Department has expanded the medical services to mass scale and has been the trend setter in effective implementation in the following medical services :-

- Providing extended medical speciality services like Medicine, Surgery, Obstetrics and Gynaecology, Ophthalmology, E.N.T, Venerology, Orthopaedics, Anaesthesiology, Child Health, Dental, Psychiatry, Ambulance Services, Laboratory Services, Leprosy, Tuberculosis, Diabetology, Cardiology and Non Communicable Disease (N.C.D)
- Accident and Emergency Services, Family Welfare and Maternity and Child Health, T.B. Control and Blindness Control Programmes, Tamil Nadu Illness Assistance Society activities and District Mental Health Programme.

5.3 The Medical Services Department of the State is also implementing a unique medical monitoring system - Hospital Management Information System and Hospital Management System at the secondary level.

ADMINISTRATIVE STRUCTURE

DIRECTOR OF MEDICAL AND RURAL HEALTH SERVICES	
ADDITIONAL DIRECTOR OF MEDICAL AND RURAL HEALTH SERVICES (MEDICAL)-(PLANNING AND DEVELOPMENT)- (INSPECTION)-(ADMINISTRATION)	
FINANCIAL CONTROLLER	
Joint Director of Health Services	<ul style="list-style-type: none"> • District Headquarters Hospitals. • Taluk Hospitals. • Non Taluk Hospitals, • Dispensaries • Women and Child 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

5.4 Other Programmes and Responsibilities: The Revised National

Tuberculosis Programme, District Mental Health Programme, Accident and Trauma Care, Tamil Nadu Illness Assistance Society and Other Important Acts such as Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994, Human Organ Transplantation Act, 1994, etc., are explained in the forthcoming chapters.

Ongoing Development Activities

5.5 In order to facilitate the provision of quality medical care to the level of tertiary care to the poor public, where doesn't exist, the State Government of Tamil Nadu have upgraded 16 District Headquarters Hospitals to the standard of tertiary care Hospitals at a cost of Rs.78.89 crore, towards construction of additional infrastructure and for procurement of equipments, furniture and linen and execution of the same is under effective process.

5.6 In order to execute the above facilities, the Government of Tamil Nadu have additionally sanctioned 1544 posts in the category of Super Specialist, Specialist Medical Officer, Medical Officer, Dentist, Staff Nurse, Radiographer and Grade-II Lab Technician and the same is under effective implementation.

5.7 On considering the welfare of the public residing at Queen of Hills, located at 2240 meters above mean sea level and to provide

tertiary care to the public on their door step, the Government have provided MRI Scan in Headquarters Hospital, Udthagamandalam along with CT Scan and also extended the provision of CT Scan facilities in Government Hospital, Gudalur, Coonoor and Kothagiri.

5.8 Consequent on the announcement of Hon'ble Chief Minister during the Budget 2014-15 under 110 Rule, the Government have ordered for extending the provision of secondary care medical facilities to the public by upgrading 9 Primary / Upgraded Primary Health Centres and one Non-Taluk Hospital to the level of Taluk Hospital at a cost of Rs.22.14 crore, inclusive of new creation of 184 additional posts in the category of Senior Civil Surgeon, Assistant Surgeon, Office Superintendent, Nursing Superintendent Grade-II, Nurse, Chief Pharmacist, Lab-Technician Grade-II, Physiotherapist Grade-II, Radiographer, Maternity Assistant, Office Assistant, Cook and Multipurpose Hospital Worker.

Chapter - 6

PUBLIC HEALTH AND PREVENTIVE MEDICINE

6.1 The aim of Public Health is to prevent disease, prolong life, and promote health through the organized efforts of society. Public Health identifies measures and monitors health needs and trends at the community level through surveillance of diseases and risk factors. The focus of public health interventions is to prevent and manage diseases, injuries and other health conditions through surveillance and promotion of healthy behaviour among communities and environmental public hygiene. Functions of Public Health include Health Promotion through healthy behaviour, prevention of communicable and non-communicable diseases, organising of community based high quality health services with focus on maternal and child health, empowering public to make healthy decisions, disaster prevention and management and ensure the availability of a competent public health workforce. The Directorate of Public Health and Preventive Medicine formed during 1923, is engaged in the above said context in protecting, promoting the health of people, by immunization, health education, application of

hygiene and sanitary measures and monitoring of drinking water quality and environmental hazards also and thereby reducing the burden of morbidity, mortality and disability in the State.

6.2 The institutions which function under this directorate include –

- Health Sub Centres
- Primary Health Centres
- Urban Primary Health Centres
- 30 bedded Community Health Centres and Upgraded Primary Health Centres
- Zonal Entomological Teams
- National Filaria Control Units
- Research cum Action Projects
- Filaria and Malaria Clinics
- Leptospirosis Clinics
- Japanese Encephalitis Control Units
- Water Analysis Laboratories in Guindy King Institute Campus, Chennai, Coimbatore, Tiruchirapalli and Tirunelveli

- State and District Public Health Laboratories
- Institute of Public Health, Poonamallee, Chennai
- Health and Family Welfare Training Centres, Egmore, Chennai and Madurai
- Health Manpower Development Institutes, Salem and Villupuram
- Regional Training Institute of Public Health, Thiruvarankulam
- Institute of Vector Control and Zoonoses, Hosur
- Health Visitor Training School, Triplicane, Chennai
- ANM Training Schools

6.3 Administrative Structure



6.4 Under this Directorate, 1,765 Primary Health Centres (PHCs) including 405 Upgraded PHCs, 134 Urban Primary Health Centres (UPHCs) and 8,706 Health Sub Centres (HSCs) are functioning besides 416 Hospital on Wheels.

Health Outcomes

Infant Mortality Rate (IMR)

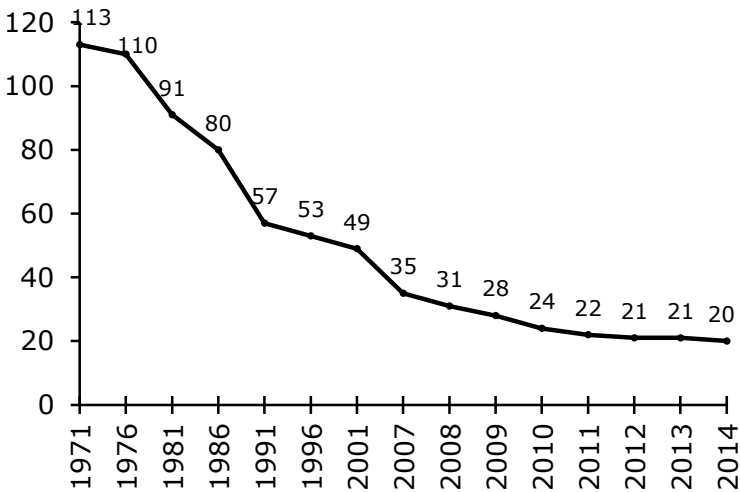
6.5 MDG Goal 4 to be achieved by 2015, aimed at reduction of IMR to less than 28 per 1000 live births in India by 2015. Infant Mortality Rate, i.e., death of children before the age of one year per 1000 live births, is a sensitive indicator of health and nutritional status of the population. The current level of IMR in Tamil Nadu for the year 2014 is 20 per 1000 live births as per the Sample Registration System Survey (2014). The State ranks as the second lowest among the major States in the country. Government of Tamil Nadu is committed to reduce the IMR to below 13 (Number of infant deaths per year for every 1000 live births) by the year 2017 and on par with developed nations by the year 2023.

Trend of MIR for India and Tamil Nadu

Year	India	Tamil Nadu
1980	114	93
1990	80	59
2000	68	51
2001	66	49
2002	64	44
2003	60	43
2004	58	41
2005	58	37
2006	57	37
2007	55	35
2008	53	31
2009	50	28
2010	47	24
2011	44	22
2012	42	21
2013	40	21
2014	39	20

Source: Sample Registration System (SRS) Bulletins

Trend in IMR in Tamil Nadu



Source: Sample Registration System (SRS) Bulletins

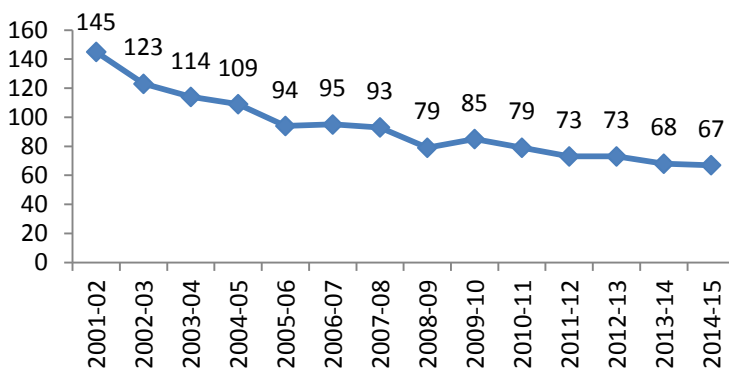
As per the State data based on the recorded births this figure is well below the sample survey results. The State is taking multi-pronged effort to bring down the Infant Mortality rate by focussing on the components such as the neo-natal mortality rates etc. The goal is to ensure that all preventable deaths are made nil by providing support services at all levels.

Maternal Mortality Ratio (MMR)

6.6 MDG Goal 5 to be achieved by 2015 aimed at reduction of MMR to less than 109 per 1,00,000 live births in India by 2015. Tamil Nadu achieved the MDG goal way back in

2004-2005 itself. Maternal Mortality Ratio represents the most sensitive and key indicator of women’s health and their status in the society. Monitoring MMR helps to understand the obstetric risk associated with each pregnancy and the quality of the health care system in a country. It is calculated as the number of maternal deaths during a given year per 1,00,000 live births during the same period. Government of Tamil Nadu aims to bring down MMR on par with developed nations by the year 2023.

Trend in Maternal Mortality Ratio – Tamil Nadu



In 2014-15, Tamil Nadu reported 687 maternal deaths amounting to a MMR of 67 per lakh live births. All efforts are being taken to reduce MMR further by following a multipronged approach. Special efforts are directed towards tracking of high risk mothers and also addressing the area specific challenges.

Initiatives for reduction of IMR and MMR

6.7 State specific land mark initiatives such as Dr.Muthulakshmi Reddy Maternity Benefit Scheme, Birth Companion Programme, 24x7 delivery care services in all Primary Health Centres, Birth waiting homes, accessible blood bank and storage centres, Menstrual Hygiene Programme, Chief Minister's Comprehensive Health Insurance Scheme etc., in addition to strengthening of Basic Emergency Obstetric and Newborn Care (BEmONC), Comprehensive Emergency Obstetric and Newborn Care (CEmONC), 42 Maternal and Child Health level II centres apart from upgradation of facilities are pioneering schemes in India and followed by many other States. The inter district disparities and the intra district challenges are also being addressed by implementing need based localised initiatives, like prior admission of high risk mothers in Birth Waiting Homes, hiring the services of obstetricians and anaesthetists, etc. Further details on these issues are also covered under the chapter on the National Health Mission implemented through the State Health Society.

Primary Health Care

6.8 PHC Infrastructure: A Primary Health Centre (PHC) in rural area is established for a population of about 30,000 in plain areas and 20,000 in hilly areas. Now, time to care

concept is also considered for remote and interior areas. Tamil Nadu has 1,765 Primary Health Centres of which 1,627 PHCs are functioning in Government Buildings, while 138 PHCs are functioning in Rent Free Buildings. 134 Urban PHCs are functioning under the control of the Directorate of Public Health and Preventive Medicine to improve the availability of Primary Health Care services to the urban poor. Under the National Health Mission, 40 new Urban PHCs are being established in Chennai while 100 existing Urban Health Centres are being strengthened in a phased manner. In other 12 Corporations and 75 Municipalities, 37 new Urban PHCs are being established and 243 existing PHCs are being strengthened in a phased manner.

Health Sub Centres

6.9 A Health Sub Centre (HSC) is established for a population of 5,000 in plain areas and 3,000 in hilly areas. Each centre is manned by a Village Health Nurse (VHN). There are 8,706 HSCs in Tamil Nadu. While 6,794 HSCs are functioning in Government Buildings, 1,912 HSCs are functioning in Rented Buildings.

Upgradation of Primary Health Centres

6.10 At present 405 Upgraded Primary Health Centres are functioning. Each Upgraded Primary Health Centre has an operation

theatre, modern diagnostic equipment like Ultra Sonogram, ECG, Semi Auto Analyzer, X-ray and an ambulance. Five doctors are posted to the Upgraded PHCs. Dental health care services are provided in 262 block level PHCs to treat dental ailments. The Government have planned to provide dental health care services in all the upgraded and block level PHCs in a phased manner.

Services and Programmes under the Directorate

6.11 This Directorate additionally plays a pivotal role in identification and tracking of pregnant women, provision of maternal and child care services, referral of high risk pregnant women to higher centres, providing access and guidance of preventive health care.

Dr. Muthulakshmi Reddy Maternity Benefit Scheme

6.12 Dr.Muthulakshmi Reddy Maternity Benefit Scheme (MRMBS) is being implemented with a noble objective of providing assistance to poor pregnant women / mothers to meet expenses on nutritious diet, to compensate for the loss of income during motherhood and to avoid low birth weight of new born babies. The assistance which was given at Rs.6,000 per beneficiary has now been increased by the **Hon'ble Chief Minister** to Rs.12,000 per beneficiary with

effect from 01.06.2011. The cash assistance is given in three installments on conditional basis and restricted to two deliveries. From 1st October, 2012, benefits under the scheme are disbursed directly to the bank account of the beneficiaries through Electronic Clearing System. Assistance under this scheme is disbursed in three installments. First installment is given before delivery for those availing all required antenatal care services during pregnancy in Government Institutions, second installment for those delivering in Government Institutions and third installment after proper immunization of the child. Sri Lankan refugees are also eligible for assistance under this scheme. On an average, 6 lakh women benefits from the scheme every year. For the financial year 2016-2017, Rs.668 crore has been allocated for this programme.

Performance under the scheme

Year	Amount Disbursed to Beneficiaries (Rs. in crore)	No. of Beneficiaries
2011-12	515.11	6,73,093
2012-13	639.54	6,70,313
2013-14	652.16	6,63,623
2014-15	658.75	6,65,240
2015-16	621.77	6,35,225

Hospital on Wheels Programme

6.13 This programme aims to take the services directly to the people, through the services of well published mobile camps using 416 Mobile Medical Units, which now have necessary additional manpower, laboratory facilities and other diagnostic equipment to provide high quality medical care. The camps cover the remote villages and hamlets as per the fixed day, fixed time plan specific for each block. Information Boards about the day and time of visit are permanently displayed at the camp site. High risk areas like temporary settlements are given high priority.

6.14 Forty camps are conducted in a month by each Mobile Medical Unit. Annually over 1.8 lakh camps are conducted, by which over a crore persons benefitted under this initiative. People with diabetes and hypertension are given medicines for one month period. The performance for 5 years is given below.

Year	No. of HoWs	Camps Conducted	Beneficiaries
2011-12	386	1,32,159	60,92,057
2012-13	386	1,84,098	1,06,99,782
2013-14	386	1,83,095	1,04,57,225
2014-15	388	1,87,615	1,19,52,880
2015-16	416	2,03,998	1,47,47,873
Total		8,90,965	5,39,49,817

Promotion of Menstrual Hygiene

6.15 Another pioneering initiative, the Menstrual Hygiene Programme was launched by the **Hon'ble Chief Minister** on 27.03.2012. Under this scheme, 18 packs of sanitary napkins (six pads per pack) in a year, at the rate of three packs for two months for each adolescent girl (10-19 years) in rural areas both school going and non-school going girls are provided. In every school in rural areas, the designated teachers are responsible for distributing the sanitary napkins to school students. The Village Health Nurses along with Anganwadi Workers are responsible for distributing the sanitary napkins to the girls who are not covered in the schools.

6.16 Sanitary Napkins are also given to Post Natal mothers who deliver in Government institutions at the rate of seven packs each (six pads per pack). Additionally as part of this scheme, Sanitary Napkins are being given to each women prison inmate and to female inpatients in the Institute of Mental Health, Chennai at the rate of 18 packs (six pads per pack) in a year. The objective of the programme is towards increasing awareness among adolescent girls on menstrual hygiene, build self-esteem and empower girls for greater socialization, to increase access to and usage of high quality sanitary napkins.

School Health Programme

6.17 All Thursdays are scheduled as School Health Days. Two teachers from each Government and Government aided school are trained in identifying common illnesses of students for follow up action with the doctors. Students in need of higher medical treatment are referred to higher medical institutions and Saturdays are referral days.

6.18 The Government of India has launched a new initiative Rashtriya Bal Swasthiya Karyakram (RBSK) and it is implemented in our State since December 2014. A child health screening and early intervention service with the aim to screen all the children from 0-18 years for four conditions (4Ds)-defects at birth, diseases, deficiencies, and developmental delays including disabilities. Following that RBSK has also been initiated in our State since December 2014. Details of the scheme are given under the chapter on State Health Society which implements the National Health Mission.

Deworming

6.19 Government of Tamil Nadu have decided to implement the National Deworming Day (NDD) Programme in coordination with Government of India, covering all children in the age group of 1 - 19 years by providing

deworming medicine (Tablet and Syrup - Albendazole) through a platform of school and Anganwadi Centres. It is estimated that 68% children between the age group of 1 to 14 years are at risk of infection with Soil Transmitted Helminths (STH) – hook worm, round worm, and pin worm etc., due to poor sanitation and hygiene conditions. STH are easily transmitted to children through contact with infected soil, evidences have shown detrimental impact of STH infestation on physical and cognitive development. 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. In order to control infection and to improve health, as initiated in 2015, National Deworming Day (NDD) was conducted on 10th February, 2016 (Wednesday) followed by Mop up Day on 15th February, 2016 (Monday). Three stakeholders have played an important role under the NDD Programme, they are:

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

6.20 For implementing this programme, a detailed micro-plan was prepared and trainings

were given at the State level to all the master trainers of the Districts so as to train the Medical & Para-medicals, Teachers and Anganwadi workers about the NDD Programme, importance of deworming, ill effects of worm infestation, benefits of periodic deworming, drug dosages, and how to manage adverse events during the programme. A total of 2.01 crore children have benefitted through this programme. With the successful conduct of two rounds, now Tamil Nadu is planning to conduct biannual deworming programme. This will help in controlling anaemia to a great extent.

Amma Baby Care kit

6.21 In the floor of assembly, the Hon'ble Chief Minister on 12.08.2014 announced that all the babies born in Government institutions will be given Amma Baby Care Kit worth of Rs.1,000/-. Amma Baby Care Kits are distributed with the objective of improving the hygiene of the postnatal mothers and the newborn baby and inculcating hygienic practices among the mothers for self and baby care. The visionary and pioneering scheme was launched by the Hon'ble Chief Minister on 08.09.2015. The Amma Baby Care kit contains 16 items viz. baby towel, baby dress, baby bed, baby protective net, baby napkin, baby oil, baby shampoo, baby soap, baby soap box,

baby nail clipper, baby rattle, baby toy, liquid hand wash, bathing soap, sowbagya sundi lehiyam and a kit bag to securely keep all the items. Under this scheme, up to now, 5.36 lakh mothers have been given the kits for their babies.

Amma Arokiya Thittam

6.22 Amma Arokiya Scheme is an annual wellness health checkup programme for improving the Health and Well being of people through health promotion, prevention, early detection and treatment of disease conditions by providing free access to basic health checkup, to all the people in the age of 30 years and above on annual basis, was commenced in Upgraded PHCs as per the announcement of Hon'ble Chief Minister under 110 announcements on 25.08.2015. The scheme will benefit a population of more than 3.5 crore. The following 25 parameters are screened under this program:

1. Height
2. Weight
3. Body Mass Index (BMI)
4. Blood Pressure
5. Blood – Total Count
6. Blood – Differential Count

7. Haemoglobin
8. Peripheral Smear
9. Blood Grouping and Typing
10. Random Blood Sugar
11. Blood-Cholesterol
12. Blood- Creatinine
13. Urine-Albumin
14. Urine-Sugar
15. Urine-Deposits
16. Ultrasound Abdomen if needed
17. ECG- based on symptoms
18. X-ray if needed
19. Sputum Microscopy(AFB)
20. Screening for Ca Cervix
21. Screening for Ca Breast
22. Screening for Oral Cancer
23. Ophthalmic screening for visual acuity and cataract
24. Screening for dermatological conditions
25. General Examination by the Medical Officer

6.23 If any disease condition is identified during this screening, the patients are treated

at free of cost in the Primary Health Centres / Government Hospitals / Medical College Hospitals / Empanelled Hospitals as applicable under Chief Minister's Comprehensive Health Insurance Scheme. Under this program, upto July, 2016, 4,22,756 beneficiaries have been screened.

6.24 Online processes for the programme:

The online screen for this program has been created in HMS and access to online screen have been given to existing NCD nurses on their HMS User-IDs. The screen will have forms for registration and clinical data entry. There is a report (monitoring) screen with which the reports of the program can be viewed at various levels (PHC, Block, HUD, District, State)

'104' Health Helpline

6.25 '104' Health Helpline enable free access to Health Information, Health Guidance, Real-time Grievance Redressal on matters related to health care service delivery, information on epidemics and counseling support for adolescents and others. The scheme was launched by **Hon'ble Chief Minister** on 30.12.2013. '104' is a 24x7 Service. So far 16.82 lakh calls have been received in this number. The following services are provided through this number.

- i. Guiding the public and patients on health related matters like first aid, maternal child health information, disease prevention, health care facility information.
- ii. Providing information about blood banks, blood storage centres.
- iii. Providing information on health programmes and related welfare schemes like Dr.Muthulakshmi Reddy Maternity Benefit Scheme and Janani Suraksha Yojana (JSY).
- iv. Providing information about Chief Minister's Comprehensive Health Insurance Scheme.
- v. Providing counselling on all health issues like nutrition, HIV / AIDS, Family Welfare, Suicide prevention etc.,
- vi. Round the clock (24x7) emergency services like prior information to health facilities about mass casualties transfer of high risk antenatal mothers.

Grievance Redressal

6.26 The Hon'ble Chief Minister launched Closed Users Group (CUG) mobile service on 25.06.2014. 2580 CUG 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.

Facilities for Travelling Lactating Mothers

6.27 Realising the difficulties faced by the travelling mothers and working mothers in breastfeeding their babies, another landmark initiative of providing separate breastfeeding rooms with all facilities in the bus stands and bus terminuses was launched **by Hon'ble Chief Minister** in the 352 bus stands and terminus on 03.08.2015. These rooms enable the lactating mothers to feed their babies in privacy. This scheme is implemented in coordination with the Local Bodies and the Transport Corporations. Additionally, Mother's breast milk banks were also inaugurated and are functioning in eight Government Hospitals. Babies who are breastfed 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. Breastfed babies receive

protection from illness through the mother's milk. All mothers, particularly those who might lack of confidence to breastfeed, need the encouragement and practical support of the baby's father and their families, friends and relatives. Health workers, community workers, women's organizations and employers can also provide support. It is expected that these schemes will eventually result in better health outcomes in all important Maternal and Child health sector.

Other Programmes

6.28 Apart from the activities listed out in this chapter a number of other activities and programmes are described separately in various chapters on the State Health Society, Communicable Diseases including the Universal Immunization Programme and Community Hygiene issues.

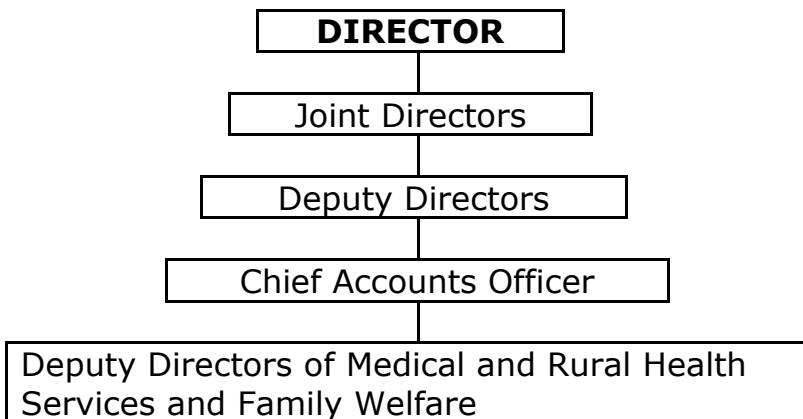
Chapter – 7

FAMILY WELFARE PROGRAMME

7.1 Family Welfare Programme is being implemented since 1956 as people's programme in the State. The permanent Family Welfare services like male and female sterilization are provided to the eligible couples at free of cost in the Government health facilities. The temporary Family Welfare services like copper-T insertion, Oral contraceptive pills, condoms and Emergency Contraceptive Pills are distributed to the eligible couples. Family Welfare services are provided to improve maternal and child health and thereby to stabilize the population in the State. Tamil Nadu reached the replacement level of fertility as 2.1 in the year 1996. From 2005 onwards, Total Fertility Rate (TFR) stabilized as 1.7 which is well below the replacement level of fertility. Tamil Nadu is considered as a model State in the Country to have adopted the target free approach to implement the Family Welfare Programme in the year 1995-1996 which was then followed by the other States. Now the target free approach is termed as the Community Needs Assessment Approach. Government of Tamil Nadu is awarded prize by the Ministry of Health and Family Welfare, Government of India for exemplary contribution

in post partum sterilization in the country on 5th April, 2016.

Administrative structure:



7.2 Demographic Indicators

As per 2011 census, the population of Tamil Nadu was 7.21 crore with decadal growth rate of 15.6%. It accounts for 6% of the country's total population. Tamil Nadu is the seventh most populous State in India. The projected population for 2017 is 7.91 crore. The demographic scenario of the State for 2014 (SRS) is furnished below:

Sl. No	Indicators	Current level
1	Crude Birth Rate	15.4 / 1000 population
2	Crude Death Rate	7.0 / 1000 population
3	Total Fertility Rate	1.7
4	Infant Mortality Rate	20 /1000 live births
5	Maternal Mortality Ratio* (2011-13)	79 /1,00,000 live births
6	Natural Growth Rate	0.84 %

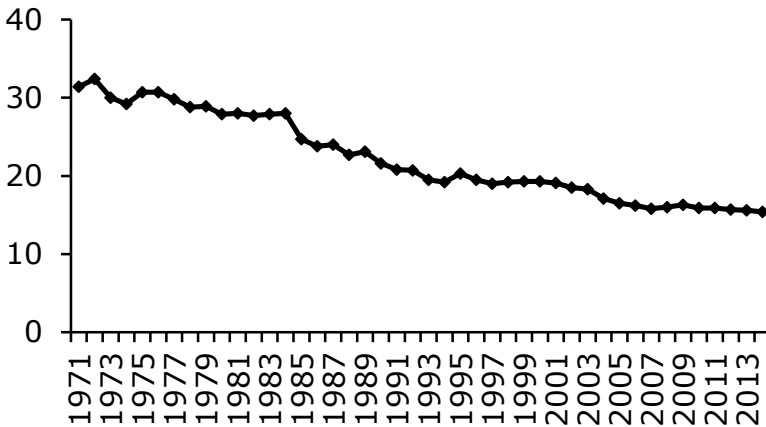
* As per State HMIS data currently it is 67/1,00,000 live births.

7.3 Performance in Family Welfare Outcomes

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 15.4 per 1000 population as per the Sample Registration Survey - 2014. The State ranks as the second lowest among the major states in the country.

Trends in crude Birth Rate



7.4 Family Welfare services available in the State: The following permanent and temporary family welfare services are provided at free of cost to the eligible couples in all the Government health facilities.

- Permanent family welfare methods like No scalpel Vasectomy, Conventional Vasectomy, Mini-lap sterilization, Puerperal sterilization and Laparoscopic Sterilization.
- Temporary family welfare methods like Copper-T insertion during Post partum period and interval period, Oral Pill cycles and condoms for spacing between births.

- Medical Termination of Pregnancy under Manual vacuum Aspiration method and Medical Method.
- Emergency contraceptive pills.

7.5 Facilities providing family welfare services in the State:

The facilities providing family welfare services in the State are listed below:

1	Primary Health Centres	1,765
2	Health Sub-centres	8,706
3	Rural Family Welfare Centres	382
4	Post Partum Centres	110
5	Urban Family Welfare Centres	108
6	Urban Health Posts	193
7	Voluntary Organisations	27
8	Approved Private Nursing Homes	2,136

7.6 Schemes Implemented under the Family Welfare Programme

Male sterilization: It is an ongoing programme implemented in the State. Special awareness campaign will be conducted to motivate males to accept No Scalpel Vasectomy (NSV). It is proposed to conduct 384 NSV camps in the State at the rate of one NSV camp per month in each District during the year 2016-2017 and a sum of Rs.38.4 lakh will be incurred for this Scheme.

Female Sterilization: Sterilization operation services are provided in 259 Government hospitals, 378 Primary Health Centres, 36 Health Posts in Municipal Corporations and 2136 approved private nursing homes in the State. Mostly delivered mothers with two and above living children are accepting sterilization before discharge from the hospitals. Diet will be provided to the sterilized mothers in the Government facilities. During 2016-2017, a sum of Rs.504 lakh will be incurred to provide diet to the sterilization acceptors.

Intrauterine Contraceptive Device (IUCD) Special Camps in Tribal Areas for Insertion of IUCD: Every year four lakh IUCD are inserted to the mothers in the State. Doctors and staff nurses are trained to insert IUCD in the post partum period. Mostly mothers with one child are counselled and inserted IUCD immediately after delivery. In Tamil Nadu, out of 47 Tribal Areas, 32 Blocks are identified with high percentage of Higher Order Births (HOB) in the State. To reduce the HOB in these 32 blocks, it is proposed to conduct 384 IUCD camps at the rate of one camp per month in these 32 blocks during the year 2016-2017 and a sum of Rs.7.7 lakh will be incurred for this scheme.

Medical Termination of Pregnancy (MTP) Programme: Annually 63,000 MTPs are

performed in the Government and private institutions which include 20,500 MTPs performed by Manual Vacuum Aspiration (MVA) technique. In order to provide safe abortion services to the needy mothers, the Doctors and staff nurses of PHCs and Government hospitals are imparted MVA technique training which is safe and simpler technique. 200 doctors will be trained in the MVA technique during 2016-2017. A sum of Rs.32.81 lakh will be incurred for the training programme.

Reduction of Higher Order Births: The Higher Order Births (3 and above) in Tamil Nadu was 7.9% in 2015. In rural areas, 120 blocks are identified where Higher Order Births more than 10.5%. As per National Family Health Survey-4 (2015-16) the total unmet need among the currently married women age 15-49 years was 10.1%. The unmet needs, MMR and IMR can be reduced by providing sterilization services to the mothers having two and above order of living children who are not adopting any family planning methods. Village wise line list of these eligible mothers are prepared by the Village Health Nurses in the 120 blocks. These mothers are counselled to accept sterilization in the government health facilities. The Family planning operation theatres in the PHC and government hospitals are functioning in a fixed

day to provide sterilization services to the mothers.

Dissemination of Family Planning Manuals to Service providers: The Government of India have recently published 7 updated Manuals and Guidelines for Family Planning Services, to ensure quality in Family Planning services. In order to improve the quality of Services, 7 updated manuals and guidelines have been printed and supplied to all the districts to disseminate to all service providers. A sum of Rs.20 lakh will be incurred to conduct dissemination workshop in all the districts during 2016-2017.

Information, Education and Communication Activities to create awareness: The following IEC activities will be carried out to create awareness about permanent and temporary Family Welfare methods among Eligible Couples (ECs) in the State.

- Family Welfare messages will be printed in the Vinyl display board and supplied to all districts.
- Multi-colour posters will be printed to create awareness about permanent and temporary methods.

- Family planning messages will be broadcasted through 6 FM stations

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
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 up to 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

State and District Quality Assurance

Committees: State level and District level Quality Assurance Committees have been constituted to ensure the quality of family welfare services provided in the State. These committees will review the deaths, failures and complications arising out of sterilization and recommend for the payment of insurance claims.

Compensation to Sterilization Acceptors:

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

Acceptors of male sterilization in public health facilities	Rs.1,100
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

In Tamil Nadu annually about 3 lakh sterilizations are performed in the Government health facilities and Private Medical Institutions. A sum of Rs.24 crore will be incurred for the year 2016-2017 for the above scheme. Tamil Nadu will encourage participation of approved private nursing homes in addition to

strengthening the existing setup in Government Sector. The Family Welfare Programme is implemented successfully to improve the quality of family welfare services and also to improve the spacing between births and thereby to reduce IMR and MMR in the State.

Chapter - 8

MEDICAL AND RURAL HEALTH SERVICES

(Employees' State Insurance Scheme)

8.1 The Employees' State Insurance Scheme of Tamil Nadu is a Statutory body functioning under ESI Corporation, New Delhi. Ten ESI Hospitals and 216 ESI Dispensaries are functioning under this Scheme. The Doctors and Para-Medical staff are placed from the Health and Family Welfare Department. The Hon'ble Prime Minister of India has recently handed over the ESI Medical College at Coimbatore to the Government of Tamil Nadu.

8.2 The administration of ESI Dispensaries in this State is done by four Regional Administrative Medical Officers (ESI) functioning from Chennai, Coimbatore, Madurai and Salem. Out of ten ESI Hospitals in Tamil Nadu, two at Chennai-K.K. Nagar and Tirunelveli are under the direct control of the ESI Corporation, New Delhi. The remaining eight ESI Hospitals are under the control of the Director of Medical and Rural Health Services (ESI), Tamil Nadu.

8.3 All the four Regions have Central Medical Stores (ESI) to supply drugs and dressings to various ESI Dispensaries. Administratively the medical and the para-medical personnel function under the Director of Medical and

Rural Health Services (ESI) and the department also have Joint Director and Deputy Director functioning from Chennai. In addition to the four Regional Administrative Medical Officers (ESI), there are eight Medical Superintendents for eight State-run ESI Hospitals viz., Chennai-Ayanavaram, Coimbatore, Madurai, Sivakasi, Tiruchirappalli, Salem, Vellore and Hosur. 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 and Employment Department's Policy Note.

Chapter - 9

INDIAN MEDICINE AND HOMOEOPATHY

9.1 The State of Tamil Nadu, in the whole of India, is unique in its kind wherein, it not only promotes and utilizes the native Tamil Medicine "Siddha" for the general upkeep of the public health but also equally promotes and utilizes the knowledge treasure that lay impregnated in other native systems of medicine of India namely Ayurveda, Unani, Yoga and Naturopathy and Alternative system of Medicine viz. Homoeopathy. Further, these systems of medicine are offering affordable, cost effective and sustained relief to various ailments like dengue, chikungunya etc. and is very effective in tackling life style diseases. Though these systems of medicine have thrived among the natives of India for centuries together standing solely on their sound Medical Principles and practices. It is a silver lining for the Indian Systems of Medicine, that during the past decade the growth of these systems of Medicine in management of various diseases has received patronage provided by Government of Tamil Nadu.

9.2 The "Department of Indian Medicine and Homoeopathy" which came into existence in 1970 is responsible for teaching as well as for providing health care in five systems of Indian

Medicine viz. Siddha, Ayurveda, Unani, Homoeopathy, Yoga and Naturopathy.

Administrative Structure

COMMISSIONER / DIRECTOR

- Joint Director
- Joint Director (Ex- Officio)
- Principals of Government Siddha, Ayurveda, Unani and Yoga & Naturopathy and Homoeopathy Medical Colleges
- State Licensing Authority (Indian Medicine)
- Government Analyst, Drugs Testing Laboratory (Indian Medicine)
- Superintendent, Arignar Anna Government Hospital of Indian Medicine, Chennai
- District Siddha Medical Officers

Government Siddha, Ayurveda, Unani, Yoga and Naturopathy and Homoeopathy Dispensaries attached to Government Hospitals/ PHCs and Siddha wards in Government Hospitals

Objectives of the Department

9.3 The Main objectives of the department are:

- Mainstreaming of Indian Systems of Medicine
- Opening of co-located ISM wings/Hospitals at various levels in all the districts
- Development of educational institutions in Siddha, Ayurveda, Unani, Yoga & Naturopathy and Homoeopathy
- Encouraging the processing and manufacturing of ISM drugs and promoting research and development in ISM
- Making improvements to the existing Government Indian Systems of Medicine and Homoeopathy Medical Colleges and thereby improving the standard of Medical Education in these systems
- Opening of new Medical Colleges in these systems
- Encouraging research and development programmes in these systems of Medicines
- Encouraging the growth of Centre of Excellence in the field of Indian medicine
- Improving the standard of Indian systems of Medical Education in Private Sector

- Regulation of Drug Manufacturing and Quality Control of Indian Systems of Medicine
- Introduction of Siddha Pura Maruthuva Muraigal (External Therapies of Siddha System of Medicine) like Varma, Thokkanam, Nasium etc., in all Siddha wings.

Medical Treatment

9.4 Details of the institutions under Indian Medicine and Homoeopathy are as follows:

System	No. of Institutions
Siddha	1,047
Ayurvedha	100
Unani	65
Yoga and Naturopathy	106
Homoeopathy	107
Total	1,425

9.5 The brief details of the various Hospitals / Wings managed by this department are:

- 350 bedded Hospital attached to Government Siddha Medical College, Palayamkottai, Tirunelveli
- 310 bedded Hospital attached to Arignar Anna Government Hospital of Indian Medicine, Chennai

- 50 bedded Hospital attached to Government Homoeopathy Medical College, Thirumangalam, Madurai District
- 100 bedded Ayurveda Hospital attached to Government Ayurveda Medical College, Nagercoil
- 50 bedded ward attached to Government Yoga and Naturopathy Medical College, Chennai
- 25 bedded ward in Government Pentland Hospital, Vellore
- 25 bedded Siddha Wards in District Headquarters Hospitals in the Districts of Erode, Nagapattinam, Dindigul, Kancheepuram and Tiruppur
- 15 bedded Siddha Ward in Medical College Hospital, Thoothukudi
- 16 bedded Siddha Ward in District Headquarters Hospitals in the Districts of Namakkal, Villupuram, Virudhunagar, Tiruvarur, Karur, Sivagangai, Kumbakonam, Tiruchirappalli, Nagercoil and Mettur, Salem District
- 15 Bedded Siddha Ward at Taluk Hospital, Chidambaram, Cuddalore District
- 15 bedded Siddha Ward at Non-Taluk Hospital, Kadayanallur

- 15 bedded Siddha Ward in District Headquarters Hospitals in the Districts of Ramanathapuram, Dharmapuri and Cuddalore

Medical Education

9.6 The total number of Government Medical Colleges of ISM and the number of ISM Private Medical Colleges available in the State are as follows:

Sl. No.	Medical System	No. of colleges	
		Government	Private
1	Siddha	2	5
2	Ayurveda	1	3
3	Unani	1	--
4	Yoga and Naturopathy	1	3
5	Homoeopathy	1	9
Total		6	20

The Government Colleges 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 and Naturopathy

Medical College, AAGHIM campus, Arumbakkam, Chennai

- Government Homoeopathy Medical College and Hospital, Thirumangalam, Madurai District
- Government Unani Medical College, AAGHIM Campus, Arumbakkam, Chennai
- Government Ayurveda Medical College and Hospital, Kottar, Nagercoil, Kanniyakumari District

9.7 Tamil Nadu is the only State in the Country where Government Medical Colleges have been established in all the five disciplines of Indian Systems of Medicine. Number of seats available in the Government Colleges and the Private Colleges for the admission to the Under Graduate (UG) and Post Graduate (PG) Courses of ISM are given below:

Sl. No.	Discipline	Details of Seats available for admission				
		Government Colleges		Private Colleges		Total
		UG	PG	UG	PG	
1.	Siddha	160	90	210	--	460
2.	Ayurveda	60	--	150	--	210
3.	Unani	26	--	--	--	26
4.	Yoga and Naturopathy	60	15	290	--	365
5.	Homoeopathy	50	--	710	30	790
Total		356	105	1360	30	1851

UG – Under Graduate ; PG - Post Graduate

9.8 The Government have accorded permission to start Post Graduate Courses in Government Yoga and Naturopathy Medical College, Chennai with an annual intake of 15 students in 3 branches (Naturopathy, Yoga and Acupuncture). Accordingly Post Graduate M.D. (Y&N) has been started from the academic year 2014-15 in Government Yoga and Naturopathy Medical College, Chennai. The admission capacity in Bachelor of Naturopathy and Yogic Sciences (BNYS) course has been increased from 50 to 60 from the academic year 2014-15. The admission capacity in Bachelor of Siddha Medicine and Surgery (BSMS) course in Government Siddha Medical College, Chennai and Bachelor of Ayurveda Medicine and Surgery (BAMS) Course in Government Ayurveda Medical College, Kottar, Nagercoil have been increased from 50 to 60 seats from the academic year 2015-16 respectively.

9.9 In pursuance to the orders of **the Hon'ble Chief Minister**, 118 students who were studying BNYS degree course in SVS Yoga and Naturopathy Medical College, Villupuram have been relocated to Government Yoga & Naturopathy Medical College at Chennai and 51 students who were studying BHMS course in SVS Homoeopathy Medical College, Villupuram District have been relocated to Government Homoeopathy Medical College, Thirumangalam, Madurai District.

Paramedical Human Resources

9.10 The following two Diploma Courses which are of two and half year duration, aim at promoting the availability of Institutionally qualified Pharmacists and Nursing Therapists under this systems of medicine and are being conducted at Arignar Anna Government Hospital of Indian Medicine, Chennai and Government Siddha Medical College and Hospital, Palayamkottai, Tirunelveli. The number 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.	Arignar Anna Government Hospital of Indian Medicine, Chennai	50	50	100
2.	Government Siddha Medical College, Palayamkottai, Tirunelveli	50	50	100
Total		100	100	200

Main Streaming of Indian Systems of Medicine and Homoeopathy Wings in Government Medical Institutions

9.11 Under the policy of main streaming, at present Indian Systems of Medicine and Homoeopathy treatment facilities are made available in District Headquarters Hospitals, Taluk and Non-Taluk Hospitals and Primary Health Centres (including 475 wings funded under National Health Mission) as shown below:-

ISM and Homoeopathy Wings in Tamil Nadu (System wise)

System	Regular											NHM			Grand Total	
	Colleges	Major Hospital	Medical College Hospital	DHQ Hospital	Taluk Hospital	Non Taluk Hospital	PHC	Regular Dispensary	Tribal Dispensary	Mobile Unit	Rural Dispensary	Total	Wings at PHC	Y & N Maternity Clinic		Total
Siddha	2	3	15	31	162	69	423	14	7	1	45	772	275	-	275	1047
Ayur veda	1	2	3	4	1	2	26	6	-		3	48	52	-	52	100
Unani	1	1	2	3	-	4	14	-	-		-	25	40	-	40	65
Homoeopathy	1	1	9	20	8	-	6	5	-		-	50	57	-	57	107
Yoga & Naturopathy	1	1	20	30	-	-	2	1	-		-	55	20	31	51	106
Total	6	8	49	88	171	75	471	26	7	1	48	950	444	31	475	1425

State Drug Licensing Authority for Indian Medicine

9.12 With effect from 29.11.2007, as per Drugs and Cosmetics Act, 1940 and Rules, 1945 licensing of Indian Systems of Medicine drugs is now being done by the State Licensing Authority (Indian Medicine). The State Licensing Authority is the controlling authority and licensing authority for grant and renewal of licenses for manufacture of Ayurveda, Siddha and Unani drugs and also licensing authority for approval of Institutions for carrying out tests for Ayurveda, Siddha and Unani Drugs and raw materials used in their manufacture along with Central Licensing Authority, Ministry of Ayush, Government of India. The District Siddha Medical Officers are the designated Drug Inspectors for the purpose of implementation of the provisions pertaining to renewal of license, inspection, sampling and prosecution against the erring manufacturers in respect of Siddha, Ayurveda and Unani drugs.

Standardization of ISM Drugs and Strengthening of State Drug Testing Laboratory

9.13 Standardization of herbal medicine is a challenging task to scientific community as Natural products contain many variable chemicals depending upon on ecological factor where the herbs are grown. The State Drug

Testing Laboratory (Indian Medicine) has been established with a view to ensure the quality of various drugs manufactured from herbal Plants and Natural Drugs under the Indian Systems of Medicine. The primary function of the State Drug Testing Laboratory (IM) is to test the quality of Statutory samples lifted and sent by the Drug Inspectors (Indian Medicine) in discharging of their statutory function under section 33G of Drugs and Cosmetic Act 1940. Statutory status has been conferred on the Laboratory. Advanced and modern equipment have been installed in the Laboratory for the purpose of standardization and quality control of ISM Medicines.

National Institute of Siddha

9.14 The National Institute of Siddha was inaugurated in 2005 at Tambaram, Chennai. As per the understanding between the Government of India and the State Government, the Capital expenditure is shared in the ratio of 60:40 and the Revenue expenditure in the ratio of 75:25 for the initial project period of 6 years. The Institute is imparting Post Graduate education in Siddha apart from research activities and the Indian Medicine and Homoeopathy Department maintains a close liaison with the National Institute. The institute has 200 Beds and

providing treatment for average of 1500 outpatients.

Arignar Anna Government Hospital of Indian Medicine

9.15 The Arignar Anna Government Hospital of Indian Medicine located at Anna Nagar, Chennai, a unique 310 bedded hospital where treatment to general public is imparted free of cost in all the five systems of Indian Medicine i.e. Siddha, Ayurveda, Unani, Homoeopathy and Yoga and Naturopathy is functioning since the year 1970. The medicines required for this hospital is being manufactured in the pharmacy attached to this hospital. This Pharmacy is manufacturing Siddha, Ayurveda and Unani medicines required for Arignar Anna Government Hospital of Indian Medicine and 12 Siddha dispensaries in Chennai City and 24 Unani dispensaries throughout Tamil Nadu. For the upgradation of Pharmacy Rs.40 lakh is allotted for Boiler Plant and Rs.15 lakh is allotted to establish and equip Quality Control Laboratory at Pharmacy attached to this Hospital.

Flood Relief Works

9.16 In addition to the multi-various steps by all departments during the flood under the directions of Hon'ble Chief Minister, the Department of Indian Medicine also

conducted flood relief works during December, 2015. During the Camp period, the Pharmacy attached with Arignar Anna Government Hospital of Indian Medicine has played a vital role and 2681 kilograms of Nilavembu Kudineer was produced. The pharmacy has prepared 3000-6000 liters Nilavembu Kudineer decoction every day and 34900 litres in total during the flood camp for the flood affected area throughout Chennai city. As a preventive measure, the Nilavembu Kudineer was supplied to prevent Dengue and other Viral fevers and also to develop the immunity in the body.

Tamil Nadu Medicinal Plant Farms and Herbal Medicine Corporation Limited (TAMPCOL)

9.17 Tamil Nadu Medicinal Plant Farms and Herbal Medicine Corporation Limited (TAMPCOL) is a State Public Sector Undertaking. It was started on 27th September, 1983 and its head office is located at Anna Hospital Campus, Arumbakkam, Chennai-106. Its factory is functioning at SIDCO pharmaceutical campus, Alathur near Thiruporur, Kancheepuram District. One of the main objectives of the Corporation is to manufacture Indian Systems of Medicines i.e., Siddha, Ayurveda and Unani. The Corporation supplies the manufactured medicines to the institutions of Indian Systems of Medicine in

the State and also sells through two sales counters at Chennai and Palayamkottai. A free Medical Consultancy Clinic has been created at the corporate office building of the Corporation for providing better medical guidance and health consulting with doctors from all streams of Indian Systems of Medicine viz. Siddha, Ayurveda, Unani and Yoga & Naturopathy on rotation basis. It functions from Monday to Saturday between 9.00 a.m. to 12.00 noon in the morning and 3.00 pm to 5.00 p.m in the evening. The Corporation manufactures 119 medicines in which 76 are Siddha medicines (58 Shastric and 18 proprietary), 38 are Ayurveda medicines (35 Shastric and 3 proprietary) and 5 are Unani medicines (2 Shastric and 3 proprietary). These Medicines are manufactured in various forms as chooranam, thailam, vennai, kudineer, parpam, chenduram, lehiyam, tablets, capsules, syrups etc. The authorized share capital of the corporation was Rupees Three crore. The initial share capital of Rupees One crore was increased to Rupees Three crore by the investment made by the Government of Tamil Nadu based on the 110 announcement made by the **Hon'ble Chief Minister** on the floor of Legislature on 08.05.2013. TAMPCOL has been entrusted the Nodal Agency activity of procurement of medicines, equipments, etc., for ISM Institutions functioning in the State from 19.03.2014. As a result the scope of

activities of the Corporation has widened and it has helped to ensure supply of quality medicines and equipment to all the Institutions functioning under the control of Commissioner of Indian Medicine and Homoeopathy at a uniform and reasonable rate. TAMPCOL also supplies Sowbhagyasunti Lehiyam for the **Amma Baby Care Kit Scheme** for the newborn and maternal care for Rs.407.95 lakh per year. **Amma Magaperu Sanjeevi Kit** for pregnant women is supplied at a cost of Rs.510 lakh by TAMPCOL to all the Siddha wings in the State from the year 2015-2016.

Growth of TAMPCOL

9.18 The total revenue of the Corporation in the last five financial years (2011-2012 to 2015-16) is Rs.128.72 crore which is steadily in the increasing trend with a sharp increase in the year 2015-16.

(Rs. in crore)

Financial Year	Revenue
2011-12	18.44
2012-13	18.78
2013-14	22.59
2014-15	25.32
2015-16	43.59
Total	128.72

Use of Malai Vembu, Nila Vembu and Papaya leaf juice for prevention and complementary treatment of Dengue

9.19 During the incidences of Dengue in 2012, thanks to **Hon'ble Chief Minister's** directions, the Government issued instructions to all the Government Hospitals of Modern Medicine in the State to provide the traditional medicines of Pappaya Leaf Juice, Malaivembu Leaf Juice and Nilavembu Kudineer to the in-patients admitted in the Government Hospitals across the State. There was an overwhelming response from the public on these initiatives. With a view to prevent and control incidents of Viral Fever in the State, a major thrust has been given for the supply of Nilavembu Kudineer to all the co-located ISM Wings for the issuance of Kashayam to the patients as a preventive measure against the viral fever. During the period from September, 2014 to December, 2015, 1,66,251 kilograms of Nilavembu Kudineer powder has been produced and 1,45,396 kilograms were distributed to all the co-located ISM Wings for providing Kashayam to the patients. During the post torrential rains that lashed the State during the north-east monsoon from November to December 2015, the Indian Systems of Medicine played a very important role in controlling the spread of communicable diseases and immunity levels of the general

public. The distribution of Nilavembu Kudineer through special camps and in the Indian Systems of Medicine wings all over the State especially in Chennai city, was well received by the general public. In worst affected places, the Nilavembu Kudineer was distributed street by street duly emphasizing the preventive benefits of the medicine against fevers of all kinds.

Kaba Sura kudineer

9.20 Kaba Sura Kudineer is an enriched Siddha Sasthric preparation containing 15 herbals ingredients to fight viral fever associated with respiratory diseases. Like the Siddha herbals decoction Nilavembu Kudineer, which played a vital role in fighting dengue in Tamil Nadu so will be the role of Kaba Sura Kudineer in treating Swine Flu.

Announcements from 2011 -12 to 2015-16

9.21 The past five years are remarkable years in the history of the Department as may be scheme from the following announcement and their follow-ups:

- To give a fillip to the improvement of the oldest Government Siddha Medical College of the State at Palayamkottai and the newly started Government Ayurveda Medical College, Kanniyakumari, the Government accorded sanction for Rs.5.00 crore each to the Colleges in the year 2012-13.

- Old age pension to hereditary practitioners of Indian Systems of Medicine was enhanced from Rs.500/- to Rs.1,000/- per month.
- Infrastructure and Human Resources Improvement is being undertaken in all the Government Colleges for Indian Systems of Medicine at a cost of Rs.15 crore. The construction activities were completed and the building was inaugurated by the Hon'ble Chief Minister. Action is being taken for the procurement of equipment and machineries.
- Establishment of a Research and Development wing exclusively for the Indian Systems of Medicine Colleges to facilitate the faculties and students to conduct the field research at a cost of Rs.12 crore has been taken up. Construction of building has been completed and inaugurated by the Hon'ble Chief Minister. Action is being taken for the procurement of equipment, machineries; appointments will be made by filling up of posts.
- A Corpus Fund of Rs.2 crore has been created for carrying out the publication activities of printing of text books and to bring out a periodical on the latest development in Indian Systems of Medicine, research articles for the benefits of general public, students and doctor communities. From this Corpus Fund, text books have been printed worth about Rs.20.00 lakh and

selling the same to students of the Indian Systems of Medicine is in progress. Department monthly magazine "Nalam Indhiya Maruthuvam Mattrum Homoeopathy" has been published from the month of May, 2016.

- Infrastructure facilities including human resources are being upgraded at a cost of Rs.10 crore to the Arignar Anna Government Hospital of Indian Medicine at Chennai. Construction of OP wards were completed and building was inaugurated by the Hon'ble Chief Minister. Action is being taken for the procurement of Equipment, machineries and appointments will be made.
- Provision of infrastructure facilities and upgradation of plant and machinery is being undertaken for TAMPCOL at a cost of Rs.2 crore - New machines have been procured and erected at the production unit at Alathur, Kancheepuram District.
- Yoga and Naturopathy Lifestyle clinics have been established and they are functioning in Medical College Hospitals, District Headquarters Hospitals and at Tamil Nadu Government Multi-super Specialty Hospital at Omandurar Government Estate. There is overwhelming response from the public to Yoga and Naturopathy Lifestyle clinics for preventive, promotive and curative aspect of health.

- Creation of awareness and the prevention of non-communicable life style diseases using Indian Systems of Medicine - Short film on creating awareness on ISM was shot and telecasted through television media and special kit medicine was prepared by TAMPCOL and kits supplied.
- To sponsor in-service doctors to undergo post graduate courses in other institutions with full pay - Two in-service doctors in the System of Ayurveda and three Doctors in the System of Unani have been permitted to undergo PG course in other States during the year 2015-16.
- Medical Registration Certificates for ISM are being issued with 2D Bar Code and URL has been introduced at a cost of Rs.15 lakh to prevent the circulation of bogus medical registration certificate in Indian Systems of Medicine. The concerned Boards have started issuing new ID cards with 2D Bar Code and URL features.
- Prevention and eradication of anaemia among women and children by providing ISM kit. A Kit of Medicine containing medicines beneficial to pregnant women during all the trimesters has been distributed through Government Primary Health Centres.

9.22 Acknowledging the role of Yoga & Naturopathy in preventing and curing of Life Style Disorder/Diseases and realizing the need of the availability of highly qualified practitioners in the State, Government have accorded sanction for the starting of three year MD course in Yoga and Naturopathy in three disciplines i.e., Acupuncture, Yoga and Naturopathy at a cost of Rs. 9.67 crore at Government Yoga and Naturopathy Medical College, Chennai.

9.23 With a view to support the health care needs of a woman during pregnancy, eleven herbal medicines are used in Siddha system, during the pregnancy in three Trimesters. It is well known that the holistic motherhood does not end with the child birth. It expands and includes the Neo-natal care of the baby and post delivery health of women. **The Hon'ble Chief Minister** has announced the pregnant women will be given a medicine containing eleven herbal Medicines, which are useful during the entire period of the pregnancy and also delivery period. A budget of Rs.550 lakh was sanctioned for the supply of 60,000 "Amma Magaperu Sanjeevi kit" and for other expenditure.

National AYUSH Mission

9.24 In the year 2014, Government of India have approved the National AYUSH Mission and

constituted National AYUSH Mission (NAM). The Mission comprising the components of –

- a. AYUSH Services
- b. AYUSH Educational Institutions
- c. Quality Control of Ayurveda, Siddha, Unani & Homoeopathy drugs
- d. Promotion of Medicinal Plants.

9.25 The Government of India have also requested the State Governments to form State AYUSH Society. As such, the Government of Tamil Nadu have issued orders constituting the “State AYUSH Society – Tamil Nadu”, which was formed as a registered Society. The Society is governed by the Governing Body and Executive Committee. The Governing Body is headed by the Chief Secretary to Government in the capacity of Chairperson and the Executive Committee by the Principal Secretary to Government, Health and Family Welfare Department in the capacity of Chairperson. Under the Scheme, developmental activities of AYUSH will be carried out by the Central and State Government under the fund sharing pattern in the ratio of 60:40. The Government of India, from the year 2015 – 16 are allocating funds under the National AYUSH Mission for the State. For the year 2015–2016, the total resource allocation was Rs.11.45 crore. For the year 2016-2017, Rs.19.98 crore has been allocated.

Chapter -10

FOOD SAFETY AND DRUGS ADMINISTRATION DEPARTMENT

FOOD SAFETY

10.1 The Government of India have enacted the Food Safety and Standards Act, 2006 (Central Act 34 of 2006) to regulate the manufacture, storage, distribution, sale and import of food products. The rules there-under framed during the year 2011 by Government of India and it has come into force throughout the country from 5th August, 2011.

10.2 In order to implement the act efficiently, a separate Food Safety Department headed by Commissioner at State Level, 32 Designated Officers at 32 Revenue Districts with 584 Food Safety Officers (385 for each Block – Rural area and 199 for Municipal areas) at field level has been established. All Officers appointed under this Act have been trained to implement various provisions of the Food Safety and Standards Act, 2006.

10.3 The field Officers have the primary responsibility of ensuring safety of food and food related items in their areas of operation. As per this Act, all Food Business Operators have to either take a license or get a registration depending upon their annual

turnover. Food Business Operators with less than Rs.12 lakh annual turnover have to register themselves with concerned Food Safety Officers. Food Business Operators with more than Rs.12 lakh annual turnover have to take license through the Designated Officers. 25,546 Food Business Operators have taken the license and 1,53,058 Food Business Operators have registered themselves with the Food Safety Department till March 2016.

10.4 To test the quality of food, there are six Food Analysis Laboratories in Tamil Nadu. They are located at Chennai (Guindy), Thanjavur, Madurai, Tirunelveli (Palayamkottai), Salem and Coimbatore. All six laboratories have been notified as per the Act for testing the food related samples. Food manufacturing and food processing units / food outlets are regularly visited by Food Safety Officers in order to ensure that quality food products are available to the community. If any food articles are found to be suspected, samples are taken and analysed. Based on the lab report, legal action is taken. Awareness campaign is also conducted among the consumers for getting quality food products. Licensing / Registration is being done through online in all Districts since June 2013 for easy accessibility to the Food Business Operators.

10.5 The Tamil Nadu Government banned the manufacture, storage, distribution, sale and import of gutkha and panmasala and other food products containing tobacco or nicotine in any form or ingredients by whatever name or description, if it is available and sold in Tamil Nadu and necessary notification in this regard has been issued. District Level Surveillance Committees under the Chairmanship of the Collectors concerned have been constituted in all the Districts for the implementation of the ban order.

10.6 Activities of Food Safety Department

- Periodical meetings are conducted with Food Business Operators (FBO's) and Consumer Associations and their grievances have been addressed in pursuance of the Food Safety and Standards Act, 2006. With the coordination of Food Business Operators and Consumer Associations, the State enforces the Food Safety and Standards Act, 2006.
- Designated Officers and Food Safety Officers are inspecting various sources of food manufacturing units including processing and storage units at regular intervals so as to prevent the distribution and sale of inedible food articles from source place.

- Hotels and Restaurants are regularly inspected to maintain hygiene and sanitation. The employees of these food outlets have been trained on hygienic way of handling / preserving / cooking / preparing and serving of food items and storing the raw materials of food in safe and edible conditions.
- Noon Meal / ICDS centres are regularly inspected and their staff are trained to maintain environmental sanitation with hygienic practices in the preparation and serving of food items to the children. Students' hostels are also visited and the kitchen staff are educated on food safety.
- Quality of large scale essential consumable items like milk, oil, fruits, water, vegetables, tea and masala powder is regularly monitored and samples taken and checked for safe consumption.
- Mosquito breeding sources, if any, are identified in food outlets; they are destroyed to control and prevent outbreaks of mosquito borne diseases.
- Regular inspection of slaughter houses are undertaken to ensure the availability of hygienic meat products to the consumers.
- Sale of banned products, like panmasala, gutkha and other food products containing tobacco / nicotine as ingredients are vigilantly monitored.

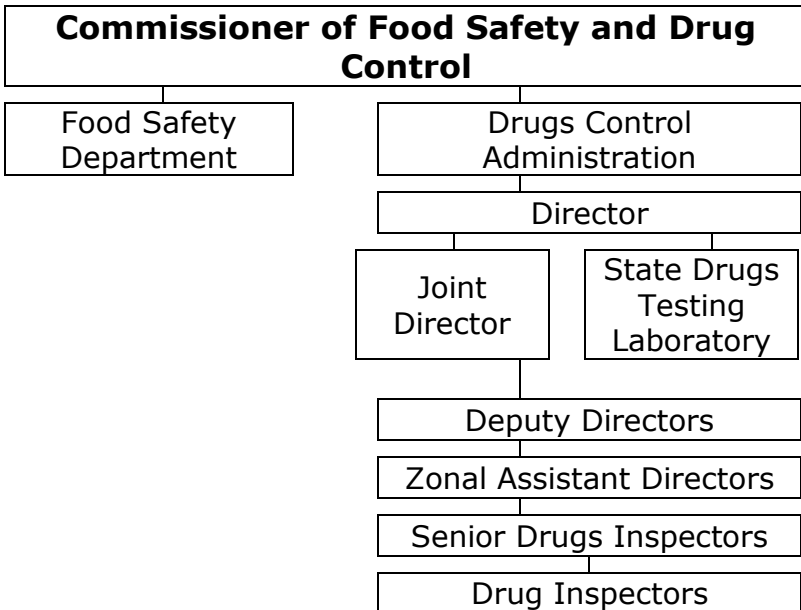
10.7 Achievements:

Licenses issued to the Food Business Operators with more than Rs. 12 lakh annual turnover	-	25,546
Registration issued to the Food Business Operators with less than Rs.12 lakh annual turnover	-	1,53,058
Sale of Banned items:		
Total shops inspected from 01.04.2015 to 31.03.2016	-	1,39,481
Gutkha / Panmasala seized in tons from 01.04.2015 to 31.03.2016	-	62.2
Value in Rupees (Crore)	-	3.28
Destroyed fruits ripened with carbide stone (in tons)	-	60.2
Samples Analysed	-	1783
Samples found unsafe / sub-standard / mis-branded etc.,	-	607
No. of Cases Launched at Court	-	107
No. of Cases Convicted at Court	-	23
Penalty imposed (in Rs.)	-	8,23,000
No. of Cases Launched before		
Adjudicating Officer	-	308
No. of Cases Convicted	-	202
Penalty imposed (in Rs.)	-	50,67,800

DRUGS ADMINISTRATION CONTROL

10.8 The Drugs Control Administration, Tamil Nadu an indispensable department as a matter of subjects it looks after i.e., Drugs and Cosmetics, has been functioning as a separate Department with effect from 26.01.1981 with the Director of Drugs Control as Head of Department, now it is brought under one umbrella organization Tamil Nadu Food Safety & Drugs Administration Department, under the administrative control of "Commissioner of Food Safety & Drugs Administration Department".

Administrative Structure



10.9 Enforcement of Central Acts for regulating the manufacture, distribution and sale of Drugs and Cosmetics: Drugs Control Department, being statutory body, the organization performs a very important role in supporting healthcare service regulations and enhancing safety of our community with respect to drugs and cosmetics. As a statutory body for Drugs Control, the department distinguishes itself against the massive challenges posed by spurious / adulterated / not of standard quality drugs, selling drugs at excess pricing, misleading advertisements by some manufacturers and dealers. The Drugs Control Administration has the prime mandate of enforcement of the following enactments all being Central Acts for regulating the manufacture, distribution and sale of Drugs and Cosmetics.

- i. Drugs and Cosmetics Act, 1940 and Rules, 1945.
- ii. Drugs Price Control Order, 2013.
- iii. Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954.

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

10.10 Under the Control of Directorate of Drugs Control Department there are 14 zonal offices (5 in the City and 9 in the Moffusil) each headed by an Assistant Director of Drugs Control who is delegated with the powers of issuing Licenses for the Grant / Renewal of sales Concerns in the zone. There are three posts of Deputy Directors of Drugs Control and one post of Joint Director of Drugs Control. There are 15 Senior Drugs Inspectors and 146 Drugs Inspectors in the State. 12 Senior Drugs Inspectors 140 Drugs Inspectors in various Zones and three Senior Drugs Inspectors and six Drugs Inspectors are in the Office of the Director of Drugs Control. There is an Intelligence Wing with Mobile Squad. There is a Legal Adviser to advise on handling of legal issues. The Director of Drugs Control is the controlling authority and licensing authority for Grant and Renewal of licenses for manufacture (for sale) of Allopathic, Homoeopathic medicines and Cosmetics and also Licensing Authority for Blood Banks in Tamil Nadu along with the Central License Approving Authority of the Government of India. To implement and enforce provisions of Drugs and Cosmetics Act, one Joint Director of Drugs Control, three Deputy Directors of Drugs Control are assisting the Director of Drugs Control in the above said functions.

10.11 Monitoring: Drugs Control Department monitors -

- The quality, safety, efficacy and rational use of drugs at controlled prices.
- Collection and supply of safe blood and blood components.
- Scrutinizing the misleading advertisements to safeguard the interests of the unwary public.
- Drawing samples of Drugs & Cosmetics for the purpose of test or analysis to ascertain its quality.

10.12 Drugs Control Department has a well equipped statutory laboratory to undertake the analysis. The total manpower available in the Directorate is detailed as follows:

Sl. No	Name of the post	No. of posts
1	Director of Drugs Control	01
2	Joint Director of Drugs Control	01
3	Deputy Director of Drugs Control	03
4	Assistant Director of Drugs Control	15
5	Assistant Director of Drugs Control (Administration)	01
6	Senior Drugs Inspector	15
7	Drugs Inspector	146
8	Legal Adviser	01

9	Assistant Accounts Officer	01
10	Ministerial Staff	127
11	Office Assistant	79
12	Driver	04
13	Telephone Operator	01
	Total	395

Details of Manpower in Drugs Testing Laboratory:

Sl. No.	Name of the Post	No. of posts
1	Government Analyst	01
2	Deputy Government Analyst	02
3	Senior Analyst	14
4	Junior Analyst	38
5	Junior Administrative Officer	01
6	Technician Grade – I	06
7	Technician Grade – II	04
8	Electrician Grade – I	01
9	Plumber	01
10	Laboratory Attendant	07
11	Animal Attendant	01
12	Ministerial Staff	10
13	Office Assistant	05
14	Sweeper	01
15	Sweeper-cum-Watchman	01
	Total	93

10.13 Functioning of Legal cum Intelligence Wing and Mobile Squad: A Legal cum Intelligence Wing and Mobile Squad in this Directorate are functioning to attend the complaints relating to spurious drugs /Cosmetics and investigates specific complaints in Chennai and in Southern Region respectively. The Legal cum Intelligence Wing headed by Deputy Director of Drugs Control as said earlier processes Legal matters and undertakes special investigations including interstate investigations in association with other State's Drugs Inspectors.

10.14 Drugs Testing Laboratory: Drugs Testing Laboratory attached to this Department undertakes testing of samples, drawn by the Drugs Inspectors (other than parenteral preparations) from various Retail, Wholesale Units, Manufacturing Units and Hospitals of Private and Government Sector.

10.15 Details of the Enforcement Activities of Drug Control Administration -

Number of Licensed Premises

Sales License		Manufacturing License		Blood Banks	Blood Storage Centres
Retail Licence	Wholesale Licence	Drug	Cosmetics		
35263	13595	477	134	305	468

10.16 Number of Inspections during 2015-2016 :

Details	Total Inspections
Sales Premises	60599
Manufacturing Premises	1244
Hospitals and Medical Stores	2896
Blood Banks	477

10.17 Details of Samples drawn, tested and reported as Not of Standard Quality Drugs during 2015-16:

Total No. of Samples drawn	9624
No. of Samples Tested	9841
No. of Samples declared as Not of Standard Quality	412

10.18 Prosecution for certain contraventions under Drugs and Cosmetics Act, 1940 and Drugs Price Control Order, 2013 during 2015-2016:

Sl. No	Details	No. of cases
1	For the manufacture of Spurious drugs	03
2	For the manufacture of Not of Standard quality drugs	81

3	For the sale of drugs without supervision of Pharmacist	194
4	For the sale of drugs without prescription of Registered Medical Practitioner	279
5	For the stocking/sale of date expired drugs	03
6	Total number of retail and Wholesale licence suspended	98
7	Contraventions under Drugs and Cosmetics Act 1940 and Rules 1945	343
8	Contraventions under DMR (OA Act) 1954	31
9	Drugs Price Control Order 2013 (so far)	2

Column 3, 4, 5 & 7 are having the figures of inter related with each other.

10.19 Special Teams have been formed to carryout raids in various Districts of Tamil Nadu in the Month of April 2015 to March 2016 to prevent the counter sale of drugs without prescription and also to prevent sale of drugs to quacks and legal action have been initiated against 446 dealers under the provisions of Drugs and Cosmetics Act 1940 and Rules 1945.

10.20 PLANS

- Not less than 10,000 samples are proposed to be drawn for testing the quality of Drugs available in the market as well as in the

- Manufacturing Units and Hospitals with a view to bring more and more drugs under testing scanner and to improve & raise overall percentage of drug sampling to an appreciable further level.
- Not less than 75,000 inspections are proposed to be carried out on Sales concerns, Manufacturing Units, Blood Banks, Approved Laboratories and the Government Hospitals in order to bring almost all licensees under the inspection scanner to ensure that the provisions of Drugs & Cosmetics are meticulously observed while transacting the business in Drugs Trade by and large.
 - Frequent raids and Joint Inspections will be conducted to eradicate spurious Drugs / adulterated drugs and to prevent entry of them in the market and also to maintain a constant vigil over the movement of the said drugs.
 - Monitoring the activities of Blood Banks and Blood Storage Centers through Surprise Inspections and Periodical Visits.
 - Samples will be drawn on a broad scale in a scientific manner so as to detect substandard drugs moving in the market.
 - Issue of licenses through online to Retailers, Wholesalers and Manufactures as per the model followed by the a few other Drugs Control department towards

implementing e-Governance and to ensure uniformity in issue of licenses, to avoid delay in issue of licenses and to maintain transparency in the system of issuing licenses to the dealers at large.

- To increase the target of present testing of drugs by the existing Drugs Testing Laboratory in Chennai to 8000 per annum.
- Establishment of an additional Drug Testing Laboratory at Madurai with the most sophisticated and State of the Art Instruments and Equipment to test the samples received from Southern Districts and thus helping share and reduce the burden of the existing Drug Testing Laboratory in Chennai and also to expedite the timely issue of tests reports without any delay and pendency to serve the very purpose of sampling.

Chapter 11

TAMIL NADU STATE HEALTH TRANSPORT DEPARTMENT

11.1 Tamil Nadu State Health Transport Department was established exclusively for the maintenance of all the vehicles attached to the various Directorates of Health and Family Welfare Department. It is a known fact that uninterrupted mobility of the Health Department vehicles is a necessity for the Health Care Programmes to reach the public in an effective manner. This Department that is responsible for the maintenance of Health Department vehicles, plays a pertinent role, though indirectly, in the successful implementation of Health Programmes. The origin of this Department, dates back to the year 1959 when 6 mobile repair units were launched for the maintenance of Health and Family Welfare Department vehicles. Later during the year 1971, Government of India evolved an all India pattern according to which each state would have a State Health Transport Organization and thus Tamil Nadu State Health Transport Organization was established in Tamil Nadu with one Central Workshop at Tiruchirappalli and 3 Regional Workshops at Chennai, Salem and Madurai. During the year 1981, the above Organization was made as a separate Directorate for the effective

maintenance of Health and Family Welfare Department Vehicles. Consequent to the formation of a Separate Directorate, this Department has made several significant strides as it passed through different phases of its development.

11.2 Functions of the Department:

- Maintaining the Health and Family Welfare Department Vehicles in an effective and economical manner.
- Acting as a repository all data related to vehicles maintained.
- Identifying and Recommending the right type / model of vehicles to be purchased based on the Vehicle Using Officers' requirement and coordinating with them while purchasing vehicles for Health and Family Welfare Department.
- Identifying the aged and obsolete model vehicles that are un-economical for further retention and liaising with the vehicle owning Officers for its condemnation and disposal.
- Providing Professional Assistance during the Tender evaluation for purchase of new vehicles and while awarding fabrication work in Ambulance Vehicles. Testing and Appraising the fabrication

work executed in the Ambulance and Hearse Vehicles.

- Providing Apprenticeship training every year to I.T.I. Certificate holders, Diploma holders and B.E. Graduates sponsored by the different Government authorities.
- Providing complete solutions to all the problems encountered by the Medical Officers in operating the vehicles.

11.3 Workshop Details: At present seven Regional Workshops, nine District Workshops and twenty nine Mobile Workshops, four Mini Workshops and One Reconditioning Unit are functioning under the Administrative Control of this Directorate. The Seven Regional Workshops located at Chennai, Salem, Madurai, Comibatore, Tiruchirapalli, Tirunelveli, Vellore maintains a fleet of around 400 Vehicles each. The Nine District Workshops at Chengalpattu, Dharmapuri, Virudhunagar, Udhagamandalam, Erode, Thanjavur, Pudukottai, Nagercoil and Villupuram are functioning to assist the Regional Workshops in maintaining all the vehicles in an effective manner. Apart from Regional / District Workshops, twenty nine Mobile Workshops that are spread all over the State are also functioning in this Department. These Mobile Workshops are a unique feature of this Department. They render periodical servicing and minor repairs right at the door

steps of the Vehicle Using Officer. These Workshops that are provided with vehicles and equipped with essential tools and spares, inspects and renders service to all the vehicles once in two months. Periodical Servicing at regular intervals with timely replacement of lubricants and worn out items avoids break down of vehicles and prolongs the life of various systems in the vehicle. This eventually results in hassle free operation of the vehicles with a notable decrease in the maintenance cost.

11.4 Fleet Maintained: Currently, this Department maintains **2,779** vehicles attached to the various Directorates of Health and Family Welfare Department as detailed below.

Sl. No.	Name of the Directorate	No. of vehicles maintained
1	Directorate of Public Health and Preventive Medicine	1728
2	Directorate of Medical and Rural Health Services	292
3	Directorate of Medical Education	217
4	Directorate of Family Welfare	411
5	Directorate of Drugs Control	5

6	Commissionerate of Indian Medicine and Homoeopathy	16
7	Directorate of State Health Transport Department	56
8	Commissionerate of Food Safety & Drugs Administration	36
9	Tamil Nadu Medical Services Recruitment Board	2
10	Tamil Nadu Health Systems Project	7
11	State Health Society	9
	Total	2779

11.5 HICORP: HICORP, an acronym for Health department vehicles Information and Complaint Redressal Programme, has been launched and implemented by this Department to provide a single window grievance redressal and information providing facility for the Medical Officers and Drivers for the proficient maintenance and hassle free operation of Health and Family Welfare Department vehicles plying in the State. The concerned stake holders utilize this platform to register and resolve all the vehicle related problems by sending a Short Message Service (SMS) to the HICORP Helpline No. 94896 21111. This is a

first of its kind 24x7 free of cost facility run by a Vehicle Maintenance Government Department. This significant initiative taken by this Department for maximum and effective utilization of vehicles has been appreciated by the entire Medical Fraternity.

Salient features of HICORP:

- i) 24 x 7 round-the-clock facility.
- ii) Single window to register complaints / requests and to seek information.
- iii) One stop solution for issues faced in the Repairs, Maintenance and Operation of Vehicles.
- iv) Request for any Technical and Statistical Information could be placed.
- v) Road side assistance offered.
- vi) No charges will be collected for the service offered.
- vii) Clarification for any queries with regard to record maintenance including Log Book maintenance could be obtained.

11.6 Data Base Programme: A Vehicle Management Data Base Programme has been designed and developed by this Department with In-House resources and Manpower. Efficient Monitoring of repair works along with computerized generation of reports are being

effected and useful data are being collected due to the implementation of the said programme across all the District and Regional Workshops of this Department.

11.7 Improvement in the Performance: As a result of effective implementation of management theories and principles, performance of the Workshops in terms of fleet utilization, downtime of repairs, inventory control, man-hour utilization and budgetary control have drastically improved. The percentage of fleet in operation which was 72.6% at the beginning of the formation of this Department in the year 1981 has progressively improved to 99% in the Year 2015-16.

Chapter-12

HUMAN RESOURCES AND MEDICAL SERVICES RECRUITMENT BOARD

12.1 For any sector to function effectively Human Resources are the most critical area in addition to infrastructure and equipments. Tamil Nadu is well served with quality Medicare personnel at all levels. The State has no shortage of institutions in Medical, Dental and Para-medical side. To ensure that these personnel are employed in the available and newly created posts, a first of its kind Medical Services Recruitment Board (MRB) was set up based **on the directions of the Hon'ble Chief Minister**. MRB plays a pivotal role in contributing the Human Resources required for the functioning of the Health and Family Welfare Department. More than ten Directorates are under the control of Health and Family Welfare Department. Over a lakh posts in over 200 categories exist in various Government Medical Institutions throughout the state.

12.2 Constitution of Medical Services Recruitment Board: MRB was constituted in January 2012 with an objective 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 started functioning with effect from 06.02.2012. Earlier, the direct recruitment to the above posts in Medical, Para Medical and Non-Medical categories were made through Tamil Nadu Public Service Commission or through Employment Exchange by the various directorates.

12.3 The Medical Services Recruitment Board conducts recruitment through a fair and transparent procedure by way of open advertisement in the Newspapers, receives the application on-line and selects either by conducting competitive examination (on-line / offline) or by giving suitable weightage to relevant academic performance of the candidates in various examinations. Candidates are selected duly following the existing rules on communal rotation and rules of reservation.

12.4 The Medical Services Recruitment Board has recruited candidates for the following categories of post till 31.03.2016.

Sl. No.	Name of the post	No. of candidates selected
01.	Assistant Surgeon (General)	4908
02.	Assistant Surgeon (Speciality)	996
03.	Assistant Surgeon (Dental-General)	59
04.	Assistant Surgeon (Dental-Speciality)	67
05.	Pharmacist	651
06.	Nurses	7243
07.	Village Health Nurse	200
08.	Lab. Technicians (Grade-III)	181
09.	Radiographers	194
10.	Doctors selected for TN Government Multi Super Speciality Hospital	72
11.	Fitter Grade-II	60
12.	Physiotherapist Grade-II	48
13.	ECG Technicians	29
14.	Therapeutic Assistant	8
15.	EEG / EMG Technician	12
16.	Prosthetic Craftsman	33
	TOTAL	14,761

12.5 'Walk-in' selection process for Specialties: Medical Services Recruitment Board has been recruiting Assistant Surgeons annually. In order to facilitate the competent candidates with PG Degree / PG Diploma to work as Assistants Surgeons in various Government Medical Institutions as per the requirement in various specialities, Government have authorized Medical Services Recruitment Board to conduct 'walk-in' selection process for Assistant Surgeons following the communal rotation and rule of reservation as per the orders in force. Medical Services Recruitment Board has already recruited 996 posts of Assistant Surgeon in various speciality departments of Tamil Nadu Medical Services through 'walk-in' selection.

12.6 Out of 14761 candidates recruited by Medical Services Recruitment Board since its inception, 7657 candidates (52%) were recruited between 01.04.2015 and 31.03.2016. The recruitment processes are under way for filling up 1856 posts under the following seven categories. Efforts are on to finalise the pending Court cases and expedite the recruitment process.

Sl. No.	Name of the post	No. of posts notified
1.	Lab Technician Grade-III	710
2.	Audiometrician	17
3.	Occupational Therapist	18
4.	Pharmacist	333
5.	Dark Room Assistant	234
6.	Lab Technician Grade-II	524
7.	Assistant Medical Officer / Lecturer Grade-II (Yoga and Naturopathy)	20
	TOTAL	1856

12.7 Medical Services Recruitment Board has also been mandated to conduct special qualifying examination for the temporarily appointed Assistant Surgeons who are in service. Earlier such special qualifying examination was conducted by Tamil Nadu Public Service Commission.

12.8 The Medical Services Recruitment Board is constantly striving to streamline and strengthen the recruitment process by reforming the procedures to make the process of recruitment more transparent and candidate friendly and aims to achieve zero vacancy situation in various medical, para-medical, non-medical categories in the Government medical institutions in the State.

Chapter – 13

STATE HEALTH SOCIETY

13.1 The State Health Society and District Health Societies have been constituted under the National Health Mission for implementations of various programmes. The National Health Mission has been constituted with a view to provide accessible, affordable and quality health care to the population, especially the vulnerable groups. With effect from 2015-16, the fund sharing pattern of this Mission is 60: 40 between the Central and State Government. The successful implementation of innovative initiatives of the State Government and the programmes being implemented under the National Health Mission are resulted in the overall improvement of all health indicators in Tamil Nadu. The improvement in the vital rates has already been brought out in Chapter 6. Tamil Nadu has already achieved the United Nations Millennium Development Goals 2015.

Tamil Nadu and Sustainable Development Goals

13.2 At the United Nations Sustainable Development Summit on 25th September, 2015, the World Leaders adopted 17 Sustainable Development Goals (SDGs) otherwise known as Global Goals build on the

Millennium Development Goals (MDG). The SDG has 17 goals and 169 targets, including one specific goal for health (Ensure healthy lives and promote well-being for all at all ages) with 13 targets, have many linkages and cross-cutting elements, reflecting the integrated approach that underpins the SDGs. The health targets per-se is likely to galvanize action in many programme areas. A focus on Universal Health Coverage (UHC), as the target that underpins all other targets and greater emphasis on the strategic and operational interactions with the social, economic and environmental dimensions of sustainable development are two central pieces of the new health agenda. The SDGs also provide a new and exciting opportunity for strengthening governance for health and interaction with policy processes in other sectors at Global and increasingly, at Regional and Country level.

13.3 The Health targets under SDG-3 are as follows:

Health Targets SDG-3

Sl. 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"> • Provision of 24x7 delivery care services • Promotion of Institutional Deliveries • Birth Attendance by skilled health professionals

		<ul style="list-style-type: none"> • Dr. Muthulakshmi Reddy Maternity Benefit Scheme (MLRMBS) • Comprehensive Emergency Obstetric and Newborn Care (CEmONC) Services • High Risk Mother Observation • Ensuring Maternal & Child Health (MCH) Protocols • Janani Suraksha Yojana (JSY) • Janani Sishu Suraksha Karyakram (JSSK - Free Drugs/Diagnostics/Diet/Drop back) • Emergency Transport Services • Maternal Anaemia Intervention (Blood Bank, Iron Sucrose) • Chief Minister's Comprehensive Health Insurance Scheme (CMCHIS) • Girl Child Protection Scheme (Social Welfare Department) • Maternal Death Audit (State & District Level)
3.2	By 2030, put an end to the preventable deaths of newborns and children under five years of age, with all	<ul style="list-style-type: none"> • Provision of Resuscitation & Essential Newborn care services • Facility based Newborn care • Home based Newborn care • Integrated Management of Neonatal and Childhood Illness (IMNCI) services

	<p>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.</p>	<ul style="list-style-type: none"> • Janani Sishu Suraksha Karyakram (JSSK) • Neonatal Ambulances • Special Newborn Care Unit (SNCU) /Newborn Stabilization Unit (NBSU) /Newborn Care Corner (NBCC) / Kangaroo Mother Care (KMC) • Provision of Immunization services • Screening of Children under Rashtriya Bal Swasthya Karyakram (RBSK) Scheme for Birth Defects, Diseases, Deficiencies and Developmental delays • Nutrition Rehabilitation Centres • Growth Monitoring & supplementary nutrition through Integrated Child Development Scheme (ICDS)
<p>3.3</p>	<p>By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases.</p>	<ul style="list-style-type: none"> • Effective implementation of National AIDS Control Programme through Tamil Nadu State AIDS Control Society (TANSACS) • Implementation of Revised National Tuberculosis Control Programme (RNTCP), Multi Drug Resistant (MDR) and Extensively Drug Resistant TB (XDR-TB) Management • Implementation of National Vector Borne Disease

		<p>Control Programme (NVBDCP) in co-ordination with DPH&PM and Local Bodies / Provision of Domestic Breeding Checkers (DBC)s</p> <ul style="list-style-type: none"> • Implementation of Integrated Disease Surveillance Programme (IDSP) • Establishment of District Public Health Laboratories • Strengthening of Laboratory services
3.4	By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.	<ul style="list-style-type: none"> • Implementation of Non-Communicable Diseases Control Programme (NCD) • Establishment of NCD Clinics in all health facilities • Coverage of NCD Complications under CMCHIS • Implementation of National Mental Health Programme
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"> • Establishment of De-addiction Centres • Counselling services
3.6	By 2020, halve the number of	<ul style="list-style-type: none"> • Establishment of Trauma Care Centres in road

	Global deaths and injuries from road traffic accidents.	<p>accident prone areas</p> <ul style="list-style-type: none"> • Provision of '108' Emergency Transportation Services
3.7	By 2030, ensure universal access to sexual and reproductive health-care services, including for Family Planning, Information and Education and the integration of reproductive health into national strategies and programmes.	<ul style="list-style-type: none"> • Implementation of Rashtriya Kishor Swasthya Karyakram (RKSK) • Establishment of Adolescent Friendly Health Clinics • Provision of ICTC Counsellors • Weekly Iron Folic Acid (WIFS) supplementation • Provision of Free Sanitary Napkins under Menstrual Hygiene Scheme • Establishment of 104 Centralized call centre
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"> • Piloting of Universal Health Coverage (UHC) in 3 districts (1 Block each) • Formation of Core Committee at State level for UHC services package

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"> • Implementation of Bio-Medical Waste Management Rules • Implementation of Food Safety and Standards Act (FSSA)
3.a	Strengthen implementation of framework convention on tobacco control.	<ul style="list-style-type: none"> • Implementation of National Tobacco Control Programme (NTCP) • Establishment of State & District Tobacco Control Cell
3.b	Provide access to medicines and vaccines for all; support Research and Development of vaccines and medicines for all.	<ul style="list-style-type: none"> • Providing free drugs, vaccines and diagnostics in all Government Health facilities • Providing financial support to King Institute of Preventive Medicine
3.c	Increase health financing and health workforce in developing countries	<ul style="list-style-type: none"> • Provision of substantial increase in Health Budget over years by 10% • Recruitment of health manpower through exclusive Medical Services Recruitment Board (MRB)

3.d	Strengthen capacity for early warning, risk reduction and management of health risks.	<ul style="list-style-type: none"> • Implementation of Integrated Disease Surveillance Programme (IDSP) • Provision of capacity building of health functionaries
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From the above table it can be seen that Tamil Nadu is well poised to achieve the goals and the programme activities under the National Health Mission, which provides the State, a lot of opportunities to ensure that the State remains in the forefront in achieving them. **The Vision 2023 released by Hon'ble Chief Minister** has already set the benchmark higher and the State has set its target in attaining and excelling the targets achieved by the developed countries by the year 2023.

13.4 The total approval for the year 2016-17 is given below :

Budgetary allocation for the year 2016-17

Sl. No.	Name of the Programme	Amount Approved (Rs. in crore)
Scheme – A		
1	Reproductive and Child Health (RCH) Flexible Pool	580.04
2	Additionalities under NRHM (Mission Flexi Pool)	557.46
3	Immunization	35.05
4	National Iodine Deficiency Disorder Control Programme	1.14
Total (A)		1173.69
Scheme – B		
National Disease Control Programme		
5	National Vector Borne Disease Control Programme	33.80
6	Revised National Tuberculosis Control Programme	66.62
7	National Leprosy Eradication Programme	2.24
8	Integrated Disease Surveillance Project	8.92
Total (B)		111.58

Scheme – C		
National Urban Health Mission		157.96
Scheme – D		
Non Communicable Disease		
9	National Programme for Control of Blindness Programme	26.15
10	National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS)	21.90
11	National Tobacco Control Programme	3.14
12	National Programme for Health Care for Elderly	6.35
13	National Programme for Mental Health	6.85
Total (D)		64.39
Scheme – E		
14	Infrastructure Maintenance (Treasury Transfer)	220.98
Over all Total (A)+(B)+(C)+(D)+(E)		1728.60

13.5 A short description of some important activities taken up under RCH and NRHM flexi pool are given in the subsequent paragraphs. The activities carried out under the other

components and disease control programmes are discussed in the relevant Department Policy Note. The National Health Mission has an overarching objective of providing support through programme and schemes aimed at achieving the health outcomes both in the maternal and child health sector and also in the disease control areas.

13.6 Reproductive, Maternal, Newborn, Child Health and Adolescent Health (RMNCH+A) Services: The State Health Society continues to support the wide range of Reproductive and Child Health Services of the State, including institutional delivery, emergency obstetric care, safe abortions, family planning services and adolescent health services in the State. Additionally, focus is given on universal coverage of Reproductive, Maternal, Newborn, Child Health and Adolescent Health (RMNCH+A) services.

- The focus has been expanded from child survival to development of all children 0-18 years under the umbrella of **Rashtriya Bal Swasthya Karyakram (RBSK)**.
- All the adolescent health care services have been brought under the name of **Rashtriya Kishor Swasthya Karyakram (RKSK)** for provision of comprehensive adolescent health care services.

Maternal Health

13.7 '24 x 7 Delivery Care Services' in all PHCs: RMNCH+ A (Reproductive, Maternal, Neonatal, Child Health and Adolescent Health) programme is the Cornerstone of the National Health Mission and provision of quality maternal health care services is an important component within the RMNCH + A Strategy in the State.

13.8 Janani Suraksha Yojana: In order to promote institutional delivery, an amount of Rs.700/- in rural and Rs.600/- in urban areas is paid to all the mothers delivering in Government Institutions. Total number of beneficiaries under this scheme is 4,73,524 during the year 2015-16 at a total cost of Rs.39.92 crore.

13.9 Janani Sishu Suraksha Karyakram: The scheme of Janani Sishu Suraksha Karyakram (JSSK) entitles every pregnant women and sick neonate for free drugs, diagnostics and diet for the duration of their stay, free transport facility from home, inter facility transfer and transport facility back to home. The scheme aims at reducing out of pocket expenses for pregnant women and sick neonates during delivery. Since 2013-14, this scheme has been extended to cover all ante-natal and post-natal complications and also for the sick infants. All

Government Institutions in Tamil Nadu are already providing free and cashless Maternal and Child Health (MCH) services. With the planned implementation of pick up and drop back facilities for delivery care services at all Government Institutions under JSSK scheme, it is expected that home deliveries may be reduced. Under this scheme 6,31,414 pregnant women have been benefitted by getting free drugs, diet and consumables during the year 2015-16. Further, 2,32,408 pregnant women have been transferred from home to health facility. 1,71,705 lakh delivered mothers have been dropped back from health facility to home.

13.10 Comprehensive Emergency Obstetrics and Neonatal Care Centres (CEmONCs): In order to provide increased coverage in case of emergency and quality of ante-natal care as well as providing improved access to skilled Obstetric care, prioritized health care facilities have been strengthened as CEmONCs by providing additional inputs such as Human Resource, equipment, civil works, training etc., 126 CEmONCs have been established till date in Medical College Hospitals, District Headquarters Hospitals and Taluk / Non-Taluk Hospitals. Services such as Operation Theatre, Obstetric ICU, Lab and Blood Bank facilities, counselling are being provided 24 x 7 to the mother and newborn.

13.11 Provision of Specialist Services (Hiring of specialists for MCH Care): In order to bridge the gap in paucity in Human Resource, retired / private specialist (Obstetricians, Paediatricians and Anaesthetist) are being hired to provide MCH services in the Primary and Secondary care institutions.

13.12 Control of Anaemia among Antenatal mothers: Both Prophylactic and Therapeutic Dose of Iron and Folic acid tablets are being provided to the antenatal mothers, in order to promote maternal and new born well being. 4,49,510 pregnant mothers diagnosed with maternal anaemia, have been given Injection Iron Sucrose during the year 2015-16.

13.13 Control of Gestational Diabetes: Due to rise in burden of Non Communicable Diseases, screening of antenatal mothers for diabetes is being done in PHCs at various stage of pregnancy to avert maternal and new born complications. 4,63,534 antenatal mothers have been screened and 9,448 antenatal mothers have been diagnosed as Gestational Diabetes Mellitus for the year 2015-16.

13.14 Blood banks and Blood storages centres: In order to combat the requirement of blood during antenatal, intra-partum, post-partum period, blood banks / blood storage centre facilities have been provided at first

referral units / PHCs. Under NHM 266 UG PHCs, 34 Taluk / Non-Taluk Hospitals and 2 District Headquarters Hospitals have been provided with blood storage facilities. Collection of blood through blood donation camps is regularly done. In order to promote this activity, procurement of 10 Blood Collection and Transport Vehicle (BCTV) is under process. Establishment of 10 new blood banks is under process.

13.15 Maternal and Child Health Centres (MCHCs): 42 Community Health Centres have been identified @ 1 per Health Unit District to function as Level II MCHCs. These centres have been so selected that they provide emergency services in locations which are not adequately served by existing CEmONCs. These centres are being strengthened with additional inputs to provide Emergency Obstetric Care and Safe Abortion Services, New Born Stabilization services, poison management etc. 31 Health Sub Centres (HSCs) in remote areas of the State have been identified to function as Level-I MCHCs to ensure round the clock RCH services in these identified remote facilities.

13.16 Feeding and dietary charges: The antenatal mothers who come for antenatal check up has to stay for the completion of investigations like ultrasound, Glucose challenge test etc., in the PHC. They are

provided with Nutritious food while attending the antenatal Clinics at the PHCs and also during postnatal period. Under this scheme 5,41,232 antenatal mothers and 1,54,838 delivered mothers have been provided with diet in the State who have come to PHCs for check-up and delivery during 2015-16.

13.17 Life Saving Anaesthetic Skills (LSAS) / Emergency Obstetric Care (EmOC) training for Medical officers: In order to provide skilled man power for safe confinement a 24 weeks intensive training programme has been provided to the PHCs Medical Officers in Life Saving Anaesthetic Skills and Emergency Obstetric Care to manage maternal complications in the Community Health Centres (CHCs), Taluk and Non-Taluk Hospitals. In order to reduce the burden of the Obstetricians, EmOC trained Medical Officers were provided for observation of high risk mothers in the Medical Colleges. So far, 566 Medical Officers were trained in LSAS training and 54,035 caesarian have been conducted by the trained doctors. 2,35,791 procedures like family planning procedures have also been conducted by the trained doctors since 2007. 130 Medical Officers have been trained in EmOC training. 6,495 caesarian have been conducted by the trained doctors. 19,880 procedures like family planning procedures

have also been conducted by the trained doctors since 2009.

13.18 High risk mother observation:

Pregnant women with one or more complications during the pregnancy, contribute to majority of maternal deaths. Such high risk pregnant mothers are identified in time and admitted in CHCs 5-10 days prior to the Expected Delivery Date (EDD) along with an attender for proper monitoring of vital parameters and additional dietary support. High risk camps are conducted at the rate of one camp per block per month to identify high risk mothers and referring them to higher facilities in time. They are shifted to the nearby District Headquarter Hospital or Medical College Hospital at the onset of labour pain or immediately on the onset of the complication. This is an effective strategy to provide quality EmONC services to such mothers in time.

Interventions to reduce maternal death

13.19 The Government have taken the following interventions to address the above issues, so as to decrease the Maternal Mortality Ratio.

13.20 Anaemia Control:

- Annual deworming, weekly once Weekly Iron and Folic Acid Supplementation

(WIFS) tablets for all adolescent girls to prevent anaemia, since they are the future mothers

- Oral Iron and Folic Acid (IFA), iron sucrose injections are provided at Upgraded PHC
- Blood transfusions for severely anaemic mothers through functional Blood Storage centres even at PHC level
- Voluntary Blood donation camps are held in all blocks twice a year in all 385 blocks.
- Supplementary feeding through ICDS.

13.21 Hypertension complicating pregnancy:

- Early identification at HSC level itself with high risk follow up, prescription of tablet-Labetalol to decrease Blood Pressure
- Standard Protocols to identify and treat Hypertension during pregnancy through injection-Magnesium Sulphate is available even at PHC level
- Functional 75 Obstetric ICUs with facilities to treat any complications arising due to hypertension complicating pregnancy.

13.22 Post-Partum Haemorrhage:

- Standard Protocols to identify and treat post-partum haemorrhage at PHC level itself through usage of Misoprostol tablets, anti-shock garments and early referral to secondary / tertiary institutions.
- Blood Banks and Blood storage centres in all First Referral Units (FRUs) to treat such mothers with PPH through specialised blood products like FFP, platelets, etc.,

13.23 Sepsis:

- Standard Protocols to prevent sepsis through hand wash technique, prophylactic antibiotics
- Clean practices followed before and after delivery
- Postnatal visits by ANMs/VHNs to the homes of the delivered mothers
- JSSK drop back services are provided to prevent postnatal sepsis.

13.24 Heart Disease complicating pregnancy:

- Early identification and Corrective surgeries during school health visits /

Adolescent period through RBSK programme

- Early Corrective surgeries done free of cost through Chief Minister's Comprehensive Health Insurance Scheme in private hospitals and in tertiary care institutions
- Early identification and referral for mothers with heart disease for follow up and safe delivery of such mothers in Apex tertiary care institutions.

13.25 Maternal death audit:

- For better monitoring of MMR in all districts, community and facility based death audits is done by the District Collector every month.
- A State level Video Conference by State Health Society is held every month to review maternal deaths.

13.26 Interventions to reduce Higher Order Birth (HOB): Higher Order Births contribute significantly to maternal deaths in the State. Hence, top 120 HOB blocks has been identified to concentrate on better provision of Family Welfare Services. Village-wise black spots will be identified in these blocks. Detail survey and monthly plan for each PHC will be developed. The service of SHS, NGO, Line

leaders of the concern area will be utilized for Inter personnel Communication (IPC).

13.27 New born care services: Newborn care services are being provided at the facility level and community level.

13.28 Facility based newborn care: Variety of facility based services is being provided for the newborn at different levels of care. Newborn care corners have been established in all labour rooms to provide resuscitation immediately after birth. New born stabilisation units have been established at FRUs and Level-II MCH centres to stabilise sick babies needing moderate care, they also serve to decrease the case load at the SNCUs by taking care of minor ailments. Special Newborn Care Units are dedicated centres providing tertiary care treatment to the very sick neonates at 22 Medical College Hospitals and 42 District and Taluk / Non-Taluk Hospitals. Additional inputs have been provided to establish these centres. 1,07,255 children have been admitted and treated in SNCUs in the year 2015-16. Establishment of 5 new SNCUs is under process. Regular follow up clinics are being conducted to review the newborn discharged from the SNCUs.

13.29 Community based newborn care: Provision of home based new born care by the field health functionaries such as VHNS to

ensure the survivability of the child, timely referral on detection of danger signs, promotion of exclusive breast feeding and improving Infant and Young Child Feeding (IYCF) practices. Training of health functionaries in Integrated Management of Neonatal Childhood Illness (IMNCI) also has greatly added to the reduction of mortality due to neonatal illness.

13.30 Nutrition Rehabilitation centres: Two nutrition rehabilitation centres have been established as a pilot project each in Dharmapuri Medical College Hospital and Perambalur District Headquarters Hospital. The children with malnutrition are being identified in the outpatient and through referral from the community and admitted in the ward. Special nutritious formula feeding is provided by cook cum care taker under the guidance of the Paediatrician. 1051 children have been treated at these centres in 2015-16.

13.31 Rashtriya Bal Swasthya Karyakram: Government of India's initiative Rashtriya Bal Swasthya Karyakram (RBSK) is a child health screening and early intervention service with the aim to screen all the children from 0-18 years for four Diseases - Defects at Birth, Diseases, Deficiencies and Developmental Delays including Disabilities. Now, all the programme already functioning in different

scheme (Modified School Health Programme, Correction of Refractive Errors - Kannoli Kappom Thittam, Comprehensive School Children Dental Programme and Congenital Defects Programme) have been brought under one roof as RBSK. Facility based newborn screening at all delivery points, by existing health manpower is rolled out. Screening of children in the Anganwadis, Government and Government-aided school is being done by dedicated Mobile Health Teams.

13.32 District Early Intervention Centre (DEIC) has been established at the rate of one per district in 31 districts, located at the Government Medical College Hospitals and District Headquarters Hospitals where there is no Government Medical College Hospital to provide referral support to children detected with health conditions during screening. This centre has the basic facilities to conduct tests for hearing, vision, neurological tests and behavioral assessment. The DEIC promptly responds to and manages all issues related to developmental delays, hearing defects, vision impairment, neuro-motor disorders, speech and language delay, autism and cognitive impairment. Under this, two teams per block, i.e., a total of 770 Mobile Health Teams (MHT), each with a Doctor, a SHN / Staff Nurse and a Pharmacist has been constituted. In 2015-16, 1.28 crore children have been screened,

13,49,685 children have been identified with defects, 9,43,496 children have been referred by the MHT and provided treatment. 25,350 children have been managed at DEIC and surgery done for 975 cases so far in 2015-16.

13.33 Rashtriya Kishor Swasthya Karyakram (RKSK): Taking into consideration the need to respond to health and development requirements of adolescents in a holistic manner, the Rashtriya Kishor Swasthya Karyakram have been launched in January, 2014. The six strategic priorities being Nutrition, Sexual and Reproductive Health, Non Communicable Diseases, substance misuse, injuries & violence and mental health. The programme includes placement of Peer Educators at the rate of four per 1000 adolescents, observing 'Adolescent Health Day' at Sub-Centres, establishment of adolescent - friendly health clinics in Primary Health Centres, Community Health Centres and District Hospitals / Taluk Hospitals, health screening including, Reproductive Tract Infection, Sexually Transmitted Infection screening, Family Welfare Services (prevention of early adolescent pregnancies), counselling (health, nutrition, premarital, gender based violence, mental health) and referral services. This activity is being implemented in nine high priority districts as first phase. 162 Adolescent Friendly Health Clinics (AFHCs) have been

established so far. 35,871 adolescents have received clinical services and 28,290 adolescents have received counselling services in these AFHCs.

13.34 Weekly Iron Folic Acid Supplementation (WIFS): The programme involves distribution of one Iron and Folic Acid (IFA) tablet a 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. The IFA and de-worming tablet would be distributed through the school for school going students and through field health functionaries for non school going girls and boys.

Tribal Health

13.35 Provision of Accredited Social Health Activists (ASHAs) in Tribal /Difficult areas: In view of the difficulties faced by the tribal population, 2,650 ASHAs have been placed in the Tribal/Hilly/Remote/Difficult PHCs in the districts and designated as Village Health Volunteer (VHV). They are being paid incentives for activities such as care of antenatal / postnatal mother, JSY-Promotion of Institutional delivery (In Tribal area), Family Welfare Services - Motivation of Eligible Couples for female sterilization, Motivation of Eligible Couples for male sterilization, Child

Care - Home based newborn care, Reporting of events, Infant death and 1-5 year death, Village Health and Nutrition Day- participation Attending PHC monthly review meeting, Immunization activity, Vitamin A & Deworming, Care of TB cases, Acting as DOTS provider, Care of Leprosy cases, Surveillance and Reporting of fever, ARI, diarrhoea, jaundice etc.

13.36 Birth waiting room in 17 tribal PHCs:

In view of the fact that most of the tribal habitation are located in far flung areas, forest land, hills and remote villages and in order to remove the imbalances and provide better health care and Family Welfare Services to tribal population, Birth Waiting Rooms (BWR) were established at foot hills of the 17 PHCs in the Tribal areas. Antenatal mothers (especially the high risk cases) along with their attender are brought to these waiting rooms, which are located in the foothills, well in time, prior to the expected date of delivery (1 week), to provide Basic Emergency Obstetrics and Newborn Care (BEmONC) services and for early referral services. This scheme has helped to reduce home deliveries as well as maternal morbidity and mortality in these areas. In order to facilitate the stay of these mothers at the birth waiting rooms up to a week before delivery, supportive staff has been provided for round the clock care and services. 2890

mothers have been provided with diet in these birth waiting rooms in 2015-16.

13.37 Tribal Mobile outreach services: 20 Mobile Medical Units (MMUs) are being operationalised in addition to the MMUs already functional in the tribal blocks in 13 tribal districts. These Mobile outreach services are being operated in coordination with the NGOs. The Mobile outreach health team consists of one Medical officer, one staff nurse, one lab technician and one driver.

13.38 Referral Services in Tribal Districts: The State has a well established emergency referral transport system established through EMRI. However, it is seen that the regular EMRI vehicles are not able to reach the tribal hamlets due to the size of the vehicles and the poor condition of the roads. In order to reach those tribal areas which are inaccessible, four wheel drive vehicles suitably equipped as ambulances have been provided in 48 identified points in tribal / hilly areas.

13.39 Tribal Counsellors: Tribal communities in general and primitive tribal groups in particular are highly disease prone. They do not have required access to basic health facilities. Their misery is compounded by lack of education / awareness, poverty, illiteracy, ignorance of causes of diseases, hostile environment, poor sanitation, lack of safe

drinking water and blind beliefs, etc. Hence, Tribal Counsellors have been placed in the 10 Government Hospitals in the tribal districts. These persons function as health activists in the institution who create awareness on health and its determinants. They motivate the community towards healthy living practices.

13.40 Infrastructure strengthening: Under National Health Mission (NHM), Financial support is provided to States to strengthen the public health system including upgradation of existing or construction of new infrastructure.

13.41 Patient Welfare Society: Patient Welfare Societies have been constituted in all the PHCs, District Headquarters Hospitals and Taluk / Non-Taluk Hospitals. All the societies are registered and functioning effectively. These societies coordinate with health staff for better functioning of the health institutions by providing patient amenities and bridging service gaps which will definitely facilitate achievement of the objectives of NRHM. Untied funds are given to all health facilities to meet out unexpected, essential and immediate expenses towards day to day maintenance. Flexibility is also given to the patient welfare societies for spending this money based on actual requirement at the field level.

13.42 Village Health, Water, Sanitation and Nutrition Committee (VHSNC): The

village is the basic unit for assessing the health needs of the people and for developing village specific plans. 15,015 VHSNCs have been formed in all the Village Panchayats and in Town Panchayats in Tamil Nadu, with representatives of the Panchayat Raj Institutions, women's groups and other village level officials related to health and determinants of health such as water and sanitation. Every Committee is entitled to an annual untied grant of Rs.10,000/- which will be used for improvement of the health and sanitation of the village. The Committee Members have already been given training regarding the village health activities.

13.43 Mobile Medical Units (MMUs): In order to provide high quality medical care covering all the remote villages and hamlets, 416 Mobile Medical Units are functioning. This is operated as per the fixed day, fixed time plan specific for each block. 40 camps are conducted in a month by each Mobile Medical Unit.

13.44 Trauma care services: Victims of the Road traffic accidents suffer from serious injuries like head injuries, chest injuries, major fractures with blood loss. The appropriate hospitals to which these patients are to be transported are sometimes very far off and sometimes the patients become much more

serious or lose their lives before they reach the hospital. In order to address this issue, the hospitals strategically located in the high ways have been strengthened and designated as trauma care centres. So far 14 trauma care centres have been established in the state and supported under NHM funds.

13.45 Dental Health Care Services in PHCs: Oral health care in rural areas is limited due to shortage of dental manpower, financial constraints and the lack of perceived need for dental care among rural masses. Hence, dental units established with the objective of achieving total oral hygiene by reducing the prevalence of tooth decay, identifying all the dental related illness and providing treatment with proper referral, follow up thereby bringing the dental services closer to the diseased rural and vulnerable population of the State. 296 dental units are being supported under NHM in Government Hospitals and PHCs

13.46 Screening of oral cancer: Oral Pre cancer screening programme was launched in 4 districts (Dindigul, Vellore, Salem and Thoothukudi) under pilot basis with handheld device (TABLET) to identify patients with pre cancer and cancerous lesions. The software is developed and maintained by National Informatics Centre. Efforts for early detection have the potential to decrease the incidence

and improving the survival of cancer patients. This is aimed to identify the pre cancer and cancer patients by door to door survey by the Dental Assistants in all adult persons of age 20-60 years especially in high risk group using tobacco products. The suspected lesions in mouth are photographed with handheld device and uploaded to be visualized by the Dental Surgeon. These suspected cases are sent in person to Dental Surgeons in the upgraded PHC for staining the lesion using simple dye Toluidine Blue 1% solution. The patients are sent to the District Dental Surgeon for deciding on further management like biopsy, surgery, chemotherapy or radiation and referral to higher tertiary care centre including coverage under Chief-Ministers Comprehensive Health Insurance. Around 50 households in each block will be screened each day, 6 days a week to cover entire population systematically within 2-3 years. This programme will be implemented in the entire State in the current year.

13.47 Quality Assurance in Government Health Facilities: From January 2015, NHM has taken steps for implementation of Quality Assurance in Government health facilities as per National Quality Assurance Standards (NQAS) as given by Government of India. The State Quality Assurance Committee and the District Quality Assurance Committees (DQACs) have been formed. As per Government of India

guidelines, the facilities, which get National Certification for the quality and have retained such status during subsequent assessments, must be incentivized. Quality assurance process will be implemented in all facilities in 31 districts during this year.

13.48 Kayakalp Award Scheme (Cleanliness Drive and Award) undertaken in Public Health Facilities: Government of India has launched a National Initiative to give Awards 'KAYAKALP' to those public health facilities that demonstrate high levels of cleanliness, hygiene and infection control. During the year 2015-2016, the Kayakalp Award Scheme was implemented in Government District Headquarters Hospital. The five hospitals viz. Government District Headquarters Hospital, Cuddalore (1st prize Rs. 50 lakhs), Government District Headquarters Hospital Erode (2nd prize Rs.20 lakhs) and Government District Headquarters Hospital, Namakkal, Government District Headquarters Hospital, Padmanabhapuram, and Government District Headquarters Hospital , Nagapattinam (3rd prize Rs.3 lakh each) have been awarded in 2015.

National Urban Health Mission (NUHM)

13.49 The Government of India has launched National Urban Health Mission (NUHM) in May, 2013 as a Sub-Mission under the National

Health Mission to effectively address the health concerns of the urban poor especially in slums and vulnerable areas. In those cities and towns with population more than 50,000, one Urban Primary Health Centre for every 50,000 population is established. The sharing pattern of the fund under this mission is also 60:40 with effect from 2015-16 between the Government of India and the State Government. Under NUHM, within Greater Chennai Corporation – 40 new Urban PHCs and in other 12 Corporations & 75 Municipalities – 37 new Urban PHCs have been established. Similarly, in Greater Chennai Corporation, 100 existing Urban Health Posts and 243 existing Health Posts in 12 Corporations & 75 Municipalities have been upgraded to Urban Primary Health Centres (Total UPHCs-420). In Chennai City, seven Health Facilities are to be upgraded as Urban Community Health Centres and eight new Urban Community Health Centres are being established. The year wise fund allocation under NUHM is given below:

Year	Allocation (Rs. in crore)
2013-14	105.32
2014-15	157.70
2015-16	186.65
Total	449.67

13.50 Development works under State Balanced Growth Fund (SBGF): Recognising the regional disparities in terms of Income, Employment, Health, Education and Gender attainments, the State has formulated a new scheme "State Balanced Growth Fund" to address the inter-district and intra-district disparities. These projects seek to address the gaps identified in terms of backwardness in Income, Poverty, Education, Health and Gender issues. The Scheme will target the 105 most backward blocks in the State. Health and Family Welfare Department has been sanctioned with 103 projects to the tune of Rs.49.04 crore towards development of infrastructure, procurement of equipment and vehicles. This fund is being utilized for construction of Health Sub-centres, Birth Waiting Rooms, providing essential equipment, purchase of '108' ambulances in the SBGF blocks.

Chapter-14

EXTERNALLY AIDED SCHEMES

World Bank assisted Tamil Nadu Health Systems Project

14.1 The Government of Tamil Nadu was implementing Tamil Nadu Health Systems Project to improve the health outcomes of the people of Tamil Nadu with funding support from World Bank from January, 2005 to September, 2015 and carried out several health activities. The total expenditure for original financing was Rs.502.17 crore and for additional financing was Rs.741.61 crore. 90% of the funds were provided by World Bank as soft loan and remaining 10% was met through State funding. The Tamil Nadu Health Systems Project (TNHSP) ended on 15.09.2015. However still, a core team of Tamil Nadu Health Systems Project is functioning with 28 staff, to look after post closure activities of the project from 16.09.2015. The activities implemented by the project were mainstreamed by integrating with respective Directorates. The details of various programmes implemented through Tamil Nadu Health Systems Project (TNHSP) and subsequently handed over to the State Departments are indicated below:

14.2 Strengthening of CEmONC services (24 Hours Comprehensive Emergency Obstetric and Newborn Care Services):

CEmONC programme is one among the important activities of TNHSP. This programme has contributed to bring down the Maternal Mortality Ratio (MMR). During the year 2005 at the time of implementation of the TNHSP the Maternal Mortality Ratio was 111 per lakh and during the year 2013 the rate of MMR came down to 79 per lakh. CEmONC Programme was implemented in 106 secondary care and 20 tertiary care hospitals. Provision of additional buildings, equipment, human resource and training of health care providers apart from monitoring the performance were some of the activities carried out by the project. After the closure of the TNHSP the CEmONC services programme has been handed over to the Director of Medical and Rural Health Services (DM&RHS) and the Director of Medical Education (DME) for implementation in respect of hospitals under their control. The budget for the programme is met out of National Health Mission (NHM) funds.

14.3 Tribal Health activities:

- i. **Mobile Outreach health services in Tribal areas:** 20 Mobile Outreach health teams were operated in 13 districts where the Tribal population are living in

remote areas. This activity was handed over to the Director of Public Health and Preventive Medicine, from 16.09.2015 and National Health Mission (NHM) is providing funds to the above scheme.

- ii. **Bed Grant Scheme:** Under this scheme, reimbursement was made by the TNHSP from World Bank funds to four private hospitals run by NGOs for Inpatient treatment of tribal community. After the closure of the TNHSP the activity was handed over to the Director of Public Health and Preventive Medicine (DPH&PM). Now the National Health Mission is funding this programme.
- iii. **Sickle Cell Anaemia Programme:** This programme is implemented in The Nilgiris and Coimbatore districts. Under this programme Sickling test was conducted in the tribal community to detect the Sickle Cell Anaemia disease. After confirming the disease, Pre-marital counselling, Pneumococcal Vaccination, provision of hydroxy-urea tablets each month and admission to the hospital and blood transfusion, if required were done. The above scheme was implemented through NGOs under the World Bank funds. Now this scheme is being implemented by the DPH&PM from

16.09.2015 with National Health Mission (NHM) funds.

- iv. **Tribal Patient Counsellor Scheme:** The scheme was introduced in 2006 in tribal areas in the Primary Health Centres (PHC) and Government Hospitals. A tribal person is employed as counsellor for guiding the tribal patients coming to the hospitals and PHCs, briefing about the facilities available in the Government hospitals and PHCs. The scheme was introduced in 42 hospitals, out of which 32 were funded by the World Bank and 10 by the NHM fund. The scheme was handed over to DM&RHS, under NHM funding.

14.4 Non-Communicable Diseases (NCD) Prevention, Screening, Treatment and Follow-up Programme: The NCD programme was implemented for treatment to the NCD, like Hypertension, Diabetes Mellitus, Cervical Cancer and Breast Cancer. The programme was implemented in 1752 PHCs, 100 selected Municipal Health Facilities, 267 Government Hospitals consisting of District Headquarters Hospitals and Taluk / Non-taluk hospitals and hospitals attached to Medical Colleges in the State. A total number of 2432 Nurses were appointed on contract basis for this programme. The TNHSP was providing Salaries,

Training to Medical Officers and Staff Nurses, Procurement of Medicines, re-agents, Equipment, Training Material and IEC activities.

Performance (since 2011)

(Numbers in Lakh)

Disease	No. of persons screened	No. of patients treated
Diabetes	164.92	11.09
Hypertension	212.07	31.76
Cancer Cervix	77.44	3.84
Cancer Breast	95.90	1.70

Now the programme has been merged with the National Programme for Control of Diabetes, Cancer and Stroke (NPCDCS) programme of the NHM and funds are provided by the Mission.

14.5 Health Management Information System (HMIS): The main objective of the HMIS programme was to convert the Medical Establishment under the Web based system. The major activities are

- i. Hospital Management System
- ii. Management Information System

- iii. College Management System
- iv. University Automation System.

The software has been developed by M/s Tata Consultancy Services. The State IT infrastructure TNSWAN was used for connectivity with fall back BSNL VPNoBB connectivity. The stationery, computers and connectivity etc. were provided by ELCOT.

Special Features

- i. One IT Co-ordinator provided for each district to manage hardware, connectivity issues and monitoring.
- ii. An exclusive helpdesk for software is functioning in the Project Management Unit.

Outcome

Reporting through MIS	(i) Secondary Care Hospitals (DM&RHS) (ii) Medical Colleges and Hospitals (DME) (iii) PHCs, Upgraded PHCs and Municipal health units (DPH&PM).
HMS Reporting	Secondary care Hospitals (DM&RHS)
CMS Reporting	Government Medical Colleges Hospitals and allied Institutions (DME)

The programme is now implemented in the respective Directorates for the Medical College Hospitals, District Headquarters Hospitals and Taluk / Non-Taluk Hospitals and Primary Health Centres. The HMIS activity including the salary of IT Co-ordinators is funded by National Health Mission.

14.6 State Health Data Resource Centre (SHDRC): The State Health Data Resource Centre is at present functioning under core TNHSP funded by National Health Mission.

14.7 Quality care Improvement and Accreditation of Government Hospitals: The main objective of the scheme was to improve the Quality care of Government Hospitals and Accreditation of Government Hospitals as detailed below:

Quality care Government Hospitals.	- 270
NABH Accreditation Government Hospitals.	- 13
Poison treatment centres Hospitals.	- 62

The activities were handed over to DM&RHS in respect of Secondary care hospitals to be funded by National Health Mission.

14.8 Infection Control and Waste Management Programme (ICWM): This activity was carried out by the TNHSP for proper disposal of Bio Medical Waste and Infection Control. The scheme was introduced in all Government Hospitals and Upgraded PHCs. Under the scheme, Common Treatment Facility (CTF) operators were contracted through tender who collected the hospital waste and disposed off in their common treatment facilities. A total of nine CTF operators were contracted for 32 Districts in Tamil Nadu. The payments were made through National Health Mission funds for Secondary Care Hospitals and Upgraded Primary Health Centres, whereas the Government provide funds for Medical College Hospitals. Under this programme, training of Health Care providers was provided in nine Regional training centres, out of which seven were Government Medical Colleges and two were Private Medical Colleges. A total of 49,198 Health Care providers were given training during the project period from 2011-2015. The equipment and consumables were provided under National Health Mission funding. The activities were handed over to the Directorates concerned and to be funded by National Health Mission.

14.9 Human Resource Development: The main objective of this programme was to give training to Medical Officers, Staff Nurses,

Paramedical and Ministerial Staff. Under this programme, the following training programmes were conducted by the TNHSP:

Sl. No.	Name of the training
1.	Training for Senior Medical Officers in Anna Institute of Management
2.	Poison Treatment Training
3.	Office Procedure Training for Ministerial Staff.
4.	Training on Modern Nursing and Ward Management to Nursing Superintendents.
5.	Ventilator Training
6.	Dialysis Training
7.	Echo Cardiogram Training
8.	PG Course at Tata Institute of Social Sciences

The programme was handed over to the DM&RHS and DPH&PM, to be funded by National Health Mission.

14.10 Hospital Equipment Maintenance

System: The Project introduced Equipment Maintenance System in Government Hospitals, Medical College Hospitals and Primary Health Centres to maintain all the equipment, which are in working condition. The Tamil Nadu Medical Services Corporation is now maintaining the equipment.

JICA ASSISTED TAMIL NADU URBAN HEALTH CARE PROJECT

Introduction

14.11 The Government of Tamil Nadu is keen on improving the health status of the people of Tamil Nadu and in this process had initiated many innovative programmes. **Tamil Nadu Urban Health Care Project** is one such programme which is designed to improve the health outcomes of the people of Tamil Nadu especially the poor and disadvantaged accessing the Government Medical Institutions in urban areas. This Project will focus 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", the project aims to solve problems the existing hospital campus has been facing to improve the patient safety and effective hospital management based on a longer term Master Plan.

- iii. The project intends to promote advanced Japanese medical technology such as hybrid operation theatre system, interventional radiology (minimally invasive surgery and endoscopy). The project also aims to introduce designs and planning of international standard operation theatre (OT) and intensive care unit by constructing "state-of-art" facilities as well as operation and maintenance of those facilities.

14.12 Tamil Nadu Urban Health Care Project has an outlay of Rs.1634 crore for implementation under the Japan International Co-operation Agency (JICA) assistance. The approval is consequent to the submission of a detailed project report to Government of India seeking JICA assistance for this project by the Government of Tamil Nadu and was under consideration for the last 2 years. The project had also been included as part of the interim Budget speech for 2016-17 wherein it was mentioned that the formal approval would be received soon. The formal agreement for the project was signed by Government of India and JICA on March 31st 2016. The Project cost of Rs. 1634 includes JICA loan component of Rs.1388 crore (85%) and state share of Rs. 245.6 crore (15%). The loan is for a period of 40 years with a grace period of 10 years at an interest rate of 0.3

percent. The project has been sanctioned for implementation over a seven year period.

The project component includes-

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

14.13 Project Objectives: The objectives of the Project are to improve the quality of health services in urban areas thereby improving the health of people in Tamil Nadu through

- i. strengthening the capacity of the key hospitals with up-gradation of the facility and equipment and
- ii. Strengthening the capacity of human resources with the focus on Non Communicable Diseases.

Chapter-15

Comprehensive Emergency Obstetric and New Born Care Hospitals

15.1 With a view to provide Comprehensive Emergency Obstetric and Newborn Care (**CEmONC**) Centres were started from the year 2005. Currently 126 Centres are functioning in various Government Hospitals in the State. Among these 126 CEmONC Hospitals, 22 are functioning in Medical Colleges and the remaining 104 are under the Directorate of Medical and Rural Health Services. These hospitals are referral hospitals providing 24 hours services for the expectant mothers and newborns.

15.2 Additional specialist posts and staff nurses for these CEmONC Centres have been created. All the CEmONC Centres are provided with cots, Boyle's apparatus, Ultrasound scan, Operation tables, Anaesthesia machines and generators. The operation theatres in CEmONC Centres are provided with central oxygen supply and shadow less lamp equivalent to world class standards.

CEmONC Performance 2011 -12 to 2015-16

Details	2011 -12	2012-13	2013-14	2014-15	2015-16
Total maternal admission	2,27,353	2,51,236	2,79,605	2,79,571	4,59,587
Deliveries	1,41,132	1,57,693	1,69,980	1,70,879	2,78,124
LSCS	62,233	73,504	87,768	90,113	1,45,351
Blood transfusion for OG cases	27,806	38,897	48,232	52,083	1,22,273
Scan for OG Cases	1,44,623	2,13,992	2,77,956	3,02,545	4,93,013
Neonatal admissions	1,41,890	1,24,454	1,16,641	1,03,344	1,40,525

Since 2015-16 data of 22 tertiary CEmONC is also included in the table

Chapter - 16

HOSPITAL MANAGEMENT INFORMATION SYSTEMS AND OTHER E-GOVERNANCE INITIATIVES

16.1 The State has a rich history of ICT innovations in health care. Some of the state information systems compliment the national information systems with additional functions for local requirements. The main systems under use in the State are as follows -

- i. **PICME:** is a local version of MCTS application. Weekly PICME data is updated in state MCTS application.
- ii. **HMIS:** State HMIS which is used for aggregate data reporting from PHCs & CHCs is a local system which compliments National Web Portal. However the local system has various additional forms to support local requirements.
- iii. **DHIS:** acts as bridge between state HMIS and National Web Portal. The system also provides various analysis functions which are not available in both the systems.
- iv. **Effective Disease Surveillance Information System:** is local system for IDSP and reports data both for IDSP and for Malaria program requirement.

Table - List of Information Systems used for Routine Reporting in the Tamil Nadu

Sl. No.	Information System	Purpose	Managed By
1.	National Web Portal	Aggregate data reporting from facilities.	Statistics Division MoHFW / Vayam Technologies Ltd
2.	MCTS	Mother & Child tracking.	Statistics Division MoHFW/ NIC
3.	DHIS-2.0	Aggregate facility data reporting & analysis	Directorate of Health & Family Welfare/ HISP India
4.	HMIS- CHC, PHC	Aggregate data reporting from PHCs and HSCs.	Directorate of Public Health & Preventive Medicine/TCS
5.	HMS- Hospitals	Patient-wise data reporting from Hospitals. Able to generate aggregate numbers to feed HMIS data.	Directorate of medical and rural health services [DMS]/TCS
6.	HMS-Medical Colleges	Patient-wise data reporting from Medical Colleges. Piloted in two districts.	Directorate of medical education [DME]/TCS

7.	HRMIS	Human Resource data –individual details, training, deployment, leave, transfer etc	TNHSP/TCS
8.	PICME	Maternal Child Tracking data	Directorate of Public Health & Preventive Medicine/NIC
9.	MediScan	Online tele-radioscan for auditing scan and diagnosis of congenital anomalies	Directorate of Medical And Rural Health Services [DMS]
10.	Outreach Camp reporting system	Information System for reporting of outreach data.	Directorate of Public Health & Preventive Medicine/NIC
11.	Maternity Benefit Scheme Monitoring System	Dr.Muthulakshmi Reddy Maternity Benefit Scheme Monitoring Information System	Directorate of Public Health & Preventive Medicine/NIC
12.	Civil Registration System	Vital events reporting	Directorate of Public Health & Preventive Medicine/NIC
13.	Medical Camps reporting system	Varumun Kappom Thittam – Medical camps	Directorate of Public Health & Preventive Medicine/NIC
14.	TNMSC	IT system for procurements – requirements,	TNMSC

		tender, responses, short listing, purchase etc.	
15.	TN state AIDS control society	TN has its own MIS for AIDS. Will switch to National System (SIMS) from NACO.	TANSACS
16.	National leprosy eradication program	National system for tracking leprosy	National Leprosy Program
17.	Monitoring system under blindness control	National system for tracking Blindness beneficiaries.	National Blindness Control Program
18.	State health transport corporation application	Hospitals run by TN State transport department	State Health Transport Department
19.	Directorate of drugs control	IT system for procurement, monitoring and control of drugs	TNMSC
20.	TN Dr MGR Medical university	Medical university has paper based research data and its own IT systems	TN Dr.MGR Medical university
21.	Hospital Information System from Corporations	Municipal Hospitals for urban health in Chennai	Corporation of Chennai

22.	Health centres reporting system	Health centres run by municipalities in other cities	Municipal administration
23.	State bureau of Health intelligence Application	National system	Central Bureau of Health Intelligence
24.	Mobile Medical Unit	Routine OPD, Lab, Referral reporting from MMU	Directorate of Public Health & Preventive Medicine
25.	Effective Disease Surveillance Information System	Routine reporting on selected diseases.	Directorate of Public Health & Preventive Medicine
26.	EMRI	Emergency transport tracking system (108 ambulances)	Tamil Nadu Health Systems Project / GVK-EMRI
27.	Epi Centre-National RNTCP data reporting application	Data reporting for tuberculosis.	State T.B. Society
28.	Tally 9EPR	Entry of financial transactions and budget tracking	NRHM, FMG

16.2 The state is also establishing a State Health Data Resource Centre (SHDRC) to integrate most the data sources and build a data ware house for data driven planning,

monitoring and evaluation. SHDRC has done an initial assessment of different data sources but a detailed analysis of data elements is planned for developing the Architecture for integrating everything.

Health Management Information System

16.3 Health Management Information System "HMIS" is a judicious combination of Information Technology (IT) and Management System, to deliver improved evidence based health care to the needy and poor patients utilizing the services of Government. The critical parameters captured from the districts and made available in real-time, across the State and distinctly aid in quality and timely decision making and intervention by the Health Directorates. The Tamil Nadu Government have sanctioned an amount of Rs.216 crore and under this scheme 11,332 computers have been supplied and 20,000 health care personnel have been trained to work on the system.

16.4 Components under HMIS: There are four components under HMIS,

- i. "Hospital Management System" - for patient related activities,
- ii. "Management Information System" - Public health related module with

administrative modules including finance and Human Resource.

- iii. "College Management System" - covering the academic activities of the Government Medical Colleges under Directorate of Medical Education
- iv. "University Automation Systems" - which includes activities of the TN Dr MGR Medical University.

Data collection and reporting in Health in various wings

16.5 Data related to health, maternal and child health and other indicators are collected at various levels as described in brief below -

- i. **At HSC:** VHNs (ANMs) are entrusted with the responsibility of data collections and entry and have been using the system very easily for mother and child tracking. VHN writes details in her register about each pregnant women and child she comes across. She enters these details in the PICME software at PHC, using her user ID & password and generates work plan for each month. From here she generates aggregate numbers of service delivery and submits it for PHC for HMIS reporting.
- ii. **At PHC/CHC:** PHC enters all its performance data in HMIS software which includes HSC aggregate data.

HMIS application has 14 different forms to be filled by the Staff Nurse/Health Inspector at different frequency.

- iii. **At Hospitals:** At hospital, HMS is used for patient-based reporting using unique IDs. In all hospitals no additional staff is hired for the data entry and reporting. All data entry work is being done by the hospital staff itself.

16.6 IT infrastructure

- i. Village Health Nurses are provided laptops and data cards to enable ease in data entry at grass root levels.
- ii. All PHCs/CHCs had computer with internet access wherever required data card is also provided in addition.
- iii. In DH/SDH dedicated LAN is used for connectivity.
- iv. Similarly all health unit districts have been provided with computer and broadband connection.
- v. TN-SWAN is exclusively used for e-transfer of funds.

16.7 HR for HMIS:

- i. There are no dedicated human resourced recruited separately for HMIS. Only at district level one Data Entry Operators is provided.
- ii. Statistical cadre staff looks after the

HMIS and related issues and block, district and state level and trained in use of computers.

- iii. Data entry person is notified through Government Order for each level of facility.

16.8 Use of data:

- i. The State monthly disseminates performance of facilities and districts on its website.
- ii. In addition Directorate of Family Welfare publishes a monthly bulletin on Family Welfare Performance in Tamil Nadu.
- iii. In monthly meetings routine data is used to review performance of VHN (through PICME), PHC/CHC (through HMIS), and Hospital (through HMS).
- iv. HMS also provides additional function to identify performance of each doctor and specialist. These statistics are used in the monthly meetings to review the performance of the facilities.
- v. Data review is conducted weekly at PHC, monthly at District and quarterly at State.

16.9 Apart from these another flagship scheme in the Health Sector, the Chief Minister's Health Insurance Scheme also has a very utility based vibrant e Governance base and TANSACs also has taken up a number of e-initiatives including reports from all its centres and Blood bank monitoring centres.

Chapter - 17

TAMIL NADU MEDICAL SERVICES CORPORATION LIMITED

17.1 The Tamil Nadu Medical Services Corporation Limited (TNMSC) was incorporated under the Companies Act on 1st July, 1994 and commenced its business in August 1994 and became fully operational in the year 1995. It transformed procurement of drugs, so much that it got noticed quickly by the Government of India and other States and soon became a model. The Government of Tamil Nadu set up the TNMSC as an autonomous organization, with the sole objective of procuring drugs and other medical supplies effectively and efficiently. Its main mandate is to supply quality medicines to patients accessing public health facilities without any interruption. To achieve this, it has been given full freedom to take all decisions related to procurement within the frame work of the procurement policy announced by the Government by an order of the Government. The Corporation started functioning from 1995 and has been able to achieve its goals. Its success was soon noticed by national and international organizations and its model has now been replicated in many other States like Kerala and Rajasthan. TNMSC is an ISO 9001:2008 Certified Organization.

Objective

17.2 The objective with which the Corporation was set up is to procure quality drugs and eliminate shortages. The following are the present functions of the TNMSC:

- Procurement and distribution of drugs
- Procurement of medical equipment
- Procurement of surgical goods
- Procurement of services for hospital maintenance
- Operation and maintenance of diagnostic facilities *viz.*, CT & MRI scan facilities at the Government Medical institutions and providing logistic support to pay-wards at Government General Hospital, Chennai, KG and IOG, Chennai etc.

The Corporation's primary focus, however, is to procure quality drugs and other medical supplies based on the consumption needs of the health system and to maintain at least four months' requirement at their warehouses to maintain uninterrupted supply to all the health facilities in the State. Over the years, it has built so much expertise on procurement that it has now been entrusted with all procurement functions of the Health Department, which are discussed subsequently.

17.3 TNMSC is the nodal agency to procure medicines, surgical, equipment and accessories to all the health facilities in the State *viz.*, Police, Prisons, Juvenile Homes, Transport Corporations and Co-operative Institutions apart from the Directorates of Health Department. The Government Medical Institutions are provided with pass books based on the allotment made by the respective Head of Departments to enable the institutions to draw their requirement of drugs and medicines from the warehouses to which they are attached. The Corporation maintains about four months' physical stock in the warehouses and two months' stock in pipeline for ensuring uninterrupted supply of medicines to hospitals. TNMSC is also procuring drugs and chemicals for the Animal Husbandry Department.

17.4 Funds Release Mechanism: For efficient procurement, sufficient funds should be at the disposal of the procuring agency. The State Government have facilitated this by issuing orders to release 90% of the drug budget allotment through the directorates, which is then deposited in a personal deposit (PD) account of the Corporation. The remaining 10% is distributed among the hospitals to purchase drugs outside the list. As a result, the Corporation does not face any shortage of funds for payment to suppliers.

17.5 Essential Drug List (EDL): The Corporation finalizes the Essential Drug List (EDL) in consultation with a technical committee comprising the following:

- Director of Medical Education
- Director of Medical and Rural Health Services
- Director of Public Health and Preventive Medicine
- Director of Drugs Control

The list is periodically revised by this committee, usually once a year. TNMSC is procuring and supplying 305 Essential Drugs, 205 Surgical and Suture items, 411 Speciality Drugs and 9 Haemophilic Drugs to all the Government Medical institutions in the State. TNMSC is also fixing the rate contract for Insecticides and Larvicides for procurement by Director of Public Health and Preventive Medicines and Local bodies. The departments, unwilling to go through the procurement hassles, have entrusted this task to the Corporation. It is also procuring 154 veterinary drugs for the Veterinary Department and this task has also been entrusted to it by the State Animal Husbandry Department, because of its expertise and efficiency.

17.6 The Corporation is also now procuring and supplying the Sanitary Napkins for the Menstrual Hygiene Programme and Amma Baby Care Kits to the Mother and new born babies. In addition, the Corporation is also procuring and supplying medicines and vaccines on war footing basis as and when required to the Government Medical institutions to treat the epidemic diseases such as Dengue, Swine Flu, Bird Flu etc. to safeguard the health and welfare of public.

17.7 Quality Assurance System: The Corporation has dispensed with pre-shipment inspection but relies on post-shipment testing of every batch of the supplies. Samples are taken from the warehouses and sent to the head office and another sample is taken from different warehouses; outer labels or strips are removed to camouflage the identity of the supplier; a separate code number is assigned to this sample and sent to one of the 11 empanelled laboratories chosen through a tender process. To participate in the tender, the laboratory should have National Accreditation Board for Laboratories (NABL) accreditation and a minimum turnover of Rs.50 lakh per annum in the previous three years. In case of failure, the drug will be retested in the Government Analytical Laboratory. If it fails again, the entire batch will be rejected. The Corporation has specified packaging standards

for cartons, which are checked at the time of receipt of goods in the warehouses.

17.8 Supply Chain Management: The Corporation has created a supply chain infrastructure of 27 warehouses at district headquarters with three more under construction in three places. The warehouse is managed by a senior pharmacist, supported by a junior pharmacist and one data entry operator. The warehouse managers are quite knowledgeable about good warehousing practices. All deliveries are at the warehouses except equipment, which are delivered at the user premises. Once supplies are received, the warehouse managers take samples from every batch and send them to the head office for testing. Only after quality clearance, these stocks are issued to the health facilities. The warehouses have sufficient racks, pallets and other warehouse equipment. All the warehouses are interlinked through the IT System to enable the management to monitor the inventory. Proper inventory management is essentially the responsibility of the head office, which is done through inter-warehouse transfers or additional purchases. Physical stock verification is conducted by an external audit agency employed by the Corporation, in addition to an annual stock verification by the Joint Director of Health Services.

17.9 Distribution of Medicines : Distribution of goods to the health facilities is through a passbook; each facility is given a passbook with its entitlement in value fixed by the heads of departments. Since allocations are available under different schemes, a facility is given more than one passbook – the Community Health Centre (CHC) has three, whereas the District Hospital has as many as ten. The hospitals can send their indents online, whereas CHCs and Primary Health Centres (PHCs) send them manually – the system is flexible and drugs are issued so long as funds are available in the passbooks. With these indents, either manual or online, the facilities can pick up drugs and other goods from the warehouses. The Corporation has worked out an annual calendar allocating dates for individual facilities. While the CHCs and PHCs lift the drugs with their own vehicles, transport contractors are engaged for delivery to the hospitals – the cost of such transport is met by the Corporation. The secondary and tertiary hospitals lift their requirements once a month, whereas primary care institutions lift them once a quarter. However, any emergency requirement can be got at short notice. The passbook allocation is flexible; additional funds can be got by approaching the Heads of the Departments, since unutilized funds are invariably available with some facilities. Thus, the Corporation has evolved a system for

smooth flow of goods from the warehouses to facilities by providing them passbooks with sufficient funds to meet their requirements, in addition to meeting their transport cost; the calendar helps in avoiding overcrowding at warehouses. The Corporation's responsibility is to ensure availability of adequate stocks at the district warehouses to ensure uninterrupted supplies to the facilities.

17.10 Information Technology System:

Although the IT system was originally developed and maintained by an external agency, it is now being maintained in-house by the Corporation. It is robust and sound and extends up to the district warehouses and is able to generate all relevant statements for decisions and monitoring. Thanks to the IT System, the Corporation has online data of receipts, issues, inventory in every warehouses, in addition to quality testing, purchase orders, payments etc.

17.11 Consultancy Services:

The Corporation has been offering consultancy services to other States for starting a Corporation like the TNMSC for a nominal fee. In the past, it had also procured drugs for other States. Now the Lakshadweep Administration (Department of Health Services) has approached it for procurement of drugs.

17.12 Flood Relief: When Tamil Nadu faced an unprecedented, once in a 100 year floods, in November, 2015, the Corporation rose up to the occasion to procure health goods needed such as bleaching powder, chlorine tablets, face masks, gloves etc. to prevent an epidemic. It used the emergency provision under section 16 A of the Tender Transparency Act and procured them within two days at prices lower than the current prices. The goods arrived within days of the flood enabling the department to assist in effectively preventing any epidemic. The usefulness of an efficient procurement agency to handle an emergency has been established during these unprecedented floods.

OTHER SERVICE ACTIVITIES

17.13 CT scan Centres: The Corporation is maintaining 69 CT Scanners at 58 Centres (three 128 slices, two 64 slices, two 16 slices, thirty five 4 slices and twenty seven numbers of single slice CT scanners) at Government Medical Institutions / Hospitals under user charges collection basis. The Corporation is collecting nominal user charges at Rs.500/- for plain scan and Rs.300/- extra for contrast for both in-patients and out-patients. Of the CT Scanners, two nos. 64 slices CT scanners and three nos. 128 slices CT scanners are being maintained and operated in the following Government Medical College Hospitals under

user charges collection basis at Rs.3,000/- per scan.

Sl. No.	CT Scanners	Place
1	64 Slices	Government General Hospital, Chennai.
2	64 Slices	Government Rajaji Hospital, Madurai.
3	128 Slices	Government Mohan Kumaramangalam Medical College Hospital, Salem.
4	128 Slices	Tamil Nadu Government Multi Super Specialty Hospital at Omandurar Government Estate, Chennai.
5	128 Slices	Government Stanley Hospital, Chennai.

17.14 MRI Scan Centres: 17 MRI Scanners at 16 Centres are maintained and operated by the Corporation at the following Government Medical Institutions / Hospitals under user charges collection basis at Rs.2,500/- for plain scan and Rs.1,500/- extra for contrast.

Sl. No.	Place
1	2 Nos. at Government General Hospital, Chennai.(1 No. of 1.5 Tesla and 1 No. of 3 Tesla MRI Scan Machines are available)
2	Government Stanley Medical College Hospital, Chennai
3	Government Kilpauk Medical College Hospital, Chennai
4	Coimbatore Medical College Hospital, Coimbatore

5	Government District Headquarters Hospital, Erode
6	Government Rajaji Hospital, Madurai
7	Government Mohan Kumaramangalam Medical College Hospital, Salem.
8	Thanjavur Medical College Hospital, Thanjavur
9	Government Mahatma Gandhi Memorial Hospital, Trichy.
10	Tirunelveli Medical College Hospital, Tirunelveli
11	Vellore Medical College Hospital, Vellore
12	Chengalpattu Medical College Hospital, Chengalpattu
13	Villupuram Medical College Hospital, Villupuram
14	Dharmapuri Medical College Hospital, Dharmapuri
15	Tamil Nadu Government Multi Super Specialty Hospital, Omandurar Estate, Chennai.
16	Institute of Child Health & Government Hospital for Children, Chennai.

In addition one MRI Scanner at Government Royapettah Hospital, Chennai, is under installation. Further one 0.35 Tesla MRI Scanner under Public Private Partnership (PPP) mode is in operation at Government Hospital, Udhagamandalam. In addition, three more nos. of 1.5 Tesla MRI under PPP mode are established in the Government Medical College Hospitals at Kanniyakumari, Thoothukudi and Theni. Two more 1.5 Tesla MRI Scanner under PPP mode are being established in the

Government Medical College Hospitals at Sivagangai and Tiruvarur.

17.15 Lithotripsy Centres: Two Lithotripsy Centres at Rajiv Gandhi Government General Hospital, Chennai and Government Rajaji Hospital, Madurai are being maintained and operated by the Corporation under user charges collection basis at Rs.5,000/- for first sitting, Rs.4,500/- for second sitting and Rs.4,000/- for third sitting. In addition, two more Lithotripsy Machines, one each at Government Medical College Hospitals at Coimbatore and Tirunelveli are installed and under trial run.

17.16 Providing logistic support to payment wards: The Corporation is providing logistic support to the pay wards out of revenue collected at the following hospitals and act as "Custodian of Funds" for these Centres:-

- i. The ISO 9001 certified G.I.Bleed and Hepato Biliary Centre in the Surgical and Gastroenterology Department in Government Stanley Hospital, Chennai, now upgraded as Liver Transplant Centre.
- ii. Pay ward (Maternity) in Institute of Obstetrics & Gynaecology, Egmore, Chennai, established in February 2003.

- iii. Pay ward (Maternity) at Kasturba Gandhi Hospital for Women and Children, Chennai established in May 2004.
- iv. Pay wards at Government General Hospital, Chennai established in January 2008.

17.17 Warehouses: The Corporation is now having scientifically designed and constructed 27 Drug Warehouses to cater to the needs of medical institutions. Construction of Drug Warehouses at the districts of Tiruppur, Nagapattinam and Tiruvallur are in progress.

Chapter - 18

TAMIL NADU STATE AIDS CONTROL SOCIETY

18.1 In Tamil Nadu, State AIDS Control Society was constituted on 22.4.1994 to prevent, control the spread and provide care and support to the HIV/AIDS affected persons. Tamil Nadu State AIDS Control Society (TANSACS) implement the HIV/AIDS control programme in the State under the guidelines of National AIDS Control Organisation (NACO) the apex body at National level. The Society works with a main motive to achieve the aim of "Getting to Zero-No new infection, No HIV/AIDS related deaths, No HIV/AIDS related Stigma and Discrimination". Tamil Nadu has been successful in bringing the HIV/AIDS prevalence rate from 1.13% in 2001-02 to 0.27% in 2014-15, with an effective participation and commitment of all the Stakeholders. National AIDS Control Programme Phase-IV (NACP-IV) has come into force with effect from April, 2012 till 2017, jointly funded by Government of India, World Bank and Global fund. The objectives of the NACP-IV are as follows:

- i. To reduce new infections by 50% (2007 Baseline of NACP III)

- ii. Comprehensive Care, Support and Treatment to all persons living with HIV/AIDS.

18.2 The basic components of TANSACS activities are as follows-

- i. Prevention of New Infections
- ii. Information, Education and Communication
- iii. Care, Support and Treatment
- iv. Strategic Information Management System

Prevention of New Infections

18.3 Integrated Counselling and Testing Centres (ICTCs): Integrated Counselling and Testing Centre (ICTC) is an entry point for host of HIV/AIDS related services in prevention and care. In Tamil Nadu, there are 738 Stand-alone ICTCs named as 'Nambikkai Maiyam' providing Counselling and Testing Services located in Government Medical College Hospitals, Government Hospitals and Primary Health Centres and 42 Stand-alone ICTCs in Chennai Corporation AIDS Prevention and Control Society. There are 16 Mobile ICTC vans to cover tribals and to reach the inaccessible remote areas to disseminate ICTC services. So far, 1102 Facility Integrated Counselling and

Testing Centres (FICTCs) have been formed in the additional Primary Health Centres, where ICTC services are extended by trained PHC staff. Private hospitals also render ICTC services under Public Private Partnership (PPP) and 211 private hospitals have signed Memorandum of Understanding with TANSACS to deliver the services.

18.4 Prevention of Parent to Child Transmission (PPTCT): Parent to child transmission is one of the routes of HIV transmission from a pregnant mother to her new born. The objective of the Prevention of Parent to Child Transmission (PPTCT) programme is to ensure prevention and care intervention among antenatal women and their family. In India, the PPTCT programme started with administering single dose 'Nevirapine' in 2001-2002 (tablet for mother and syrup for babies). In September, 2012, the PPTCT programme underwent a change from single dose 'Nevirapine' to multi drug regime and was introduced in the three Southern States, Tamil Nadu, Andhra Pradesh and Karnataka. Subsequently, as per the NACO revised guidelines issued during February, 2014 all identified HIV positive pregnant women are initiated on lifelong ART and babies born to them are given 'Nevirapine' syrup immediately after birth till six weeks. TANSACS provides this

PPTCT services at all the 780 Stand-alone ICTCs in Tamil Nadu.

18.5 Sexually Transmitted Infection / Reproductive Tract Infection (STI/RTI)

Services: There are 156 Designated STI/RTI clinics (SUGA VAZHUVU MAIYAM) in Government Medical Colleges, Government Headquarters Hospitals and Government Hospitals including Chennai Corporation functioning under Tamil Nadu State AIDS Control Society. All the STI/RTI Outpatient attendees are screened for Syphilis and HIV. All antenatal mothers are screened for elimination of congenital syphilis and HIV along with other basic investigations done for them during their registration. Once in three months, all High Risk Groups are screened for STI and they are tested for Syphilis and HIV, once in every six months. One trained STI Counsellor is posted at each of the Designated STI/RTI Clinics for counselling on STI/RTI and HIV transmission, Prevention, Partner Treatment, Risk Reduction and Condom Promotion. There is one Regional Lab in Institute of Venerology, Madras Medical College, Chennai and four State Reference Centres (SRCs) have been established at Madurai, Coimbatore, Tirunelveli and Stanley Medical College, Chennai for Operational Research in STI/RTI programme and Syphilis External Quality Assurance Scheme (EQAS) is being done from the financial year 2014-2015.

For this, Microbiologists and Laboratory Technicians are trained. Further all the Medical Officers, Staff Nurses and Laboratory Technicians are trained on Syndromic Case Management for providing treatment using colour coded drug kits.

18.6 Targeted Intervention: The Targeted Intervention (TI) is being implemented through the Non-Governmental Organizations (NGOs) / Community Based Organizations (CBOs). These are undertaken with a view to bring behavioural changes among High Risk Groups (HRGs) namely the Female Sex Workers (FSWs), Men who have Sex with Men (MSM), Injecting Drug users (IDUs), Truckers, Migrants and Transgender (TG) in the State, who are at risk of contracting HIV infections. As on March 2016, 74 NGOs/CBOs are functioning and reaching out to 3,52,444 HRG Population (FSW-43,584, MSM-31,864, TG-691, IDU-516, Migrants-1,14,816 and Truckers-1,60,973). An Employee Led Model (ELM) will continue to function among 27 Industries.

18.7 Link Workers Scheme: Link Workers Scheme is implemented in 100 villages in each of the 15 Districts where it is implemented to create HIV/AIDS awareness among the HRG and bridge population in the rural areas. Implementation of the projects will strengthen

HIV prevention in the rural pockets of the State.

18.8 Condom Promotion: TANSACS provides free condoms to people through STI clinics, ICTC, ART Centres and other outreach programmes implemented by NGOs/CBOs through Targeted Interventions as they are the most effective means for prevention of HIV infection among high risk and general population.

18.9 Blood Safety: In Tamil Nadu, 296 Blood Banks (State Government – 87, ESI – 1, Central Government – 11 and Private – 197), 111 Blood Components Separation Units (Government 15 and Private 96) and 467 Blood Storage Centres (Government 363 and Private 104) are functioning to provide adequate, safe and quality blood and blood components to the needy patients. In the Government Hospitals, 99% of the collected blood have come from Voluntary Blood donors. During the year 2015-2016, **8,82,641** units of blood were collected in Tamil Nadu and out of this 3,67,746 units of blood were collected through 4,049 voluntary blood donation camps conducted by the Government Blood Banks across the State. The patients who are admitted with the need of blood and blood components are provided blood at free of cost in all the Government

Hospitals. The use of blood components are being encouraged for optimal utility.

18.10 Information, Education and Communication (IEC): Active IEC campaigns have resulted in reduction of stigma and discrimination attached to access of HIV/AIDS services with a view to create awareness among general population and to motivate behavioural changes among high risk groups. The mobile IEC vans are used during the campaign for promotion of IEC related services at the districts among the rural people in addition to using folk dances and traditional art apart from mass media activities.

18.11 Greater Involvement for the People Living with HIV/AIDS (GIPA): Representatives of the People Living with HIV / AIDS (PLHIV) are part of planning the programmes related to IEC and CST activities. They are also the members in State AIDS Control Society (SACS) Governing/Executive and Grievances Redressal Committees. PLHIVs and Community Based Organisations (CBOs) are implementing project and programmes at the district level and the same is being monitored by them, to ensure service facilities at the grass root level.

18.12 Hello + Helpline 1800 419 1800: This service operates to enlighten the callers with required information about HIV/AIDS, STI

and also to clear the myths, misconception and doubts about HIV/AIDS by informing the callers to the service centers available in the respective districts.

18.13 Legal Aid Clinic (LAC): This programme is being implemented in association with Tamil Nadu State Legal Services Authority (TNSLSA) and established in 16 districts to address the legal and non legal issues of People Living with HIV/AIDS (PLHIVs).

18.14 Red Ribbon Club (RRC): To create awareness and to raise the risk perception and behavioural changes among the youths 2021 Red Ribbon Clubs are functional in 2021 Arts and Science, Polytechnic, Engineering, Medical, B.Ed. Colleges and Teacher Training Institutes.

18.15 Life Skill Education Programme in Schools (LSEP): With a view to provide information on HIV/AIDS transmission and prevention in the context of growing up and for imparting related life skills to 9th and 11th Students in Tamil Nadu, this programme is implemented in 9,580 schools. It is being conducted through State Council of Educational Research and Training (SCERT).

18.16 Intervention among Self Help Group on HIV and AIDS: To raise awareness about this, among the self help groups this intervention has been started and is jointly

implemented in 20 districts through the Tamil Nadu State AIDS Control Society (TANSACS) and Tamil Nadu Corporation for Development of Women (TNCDW). It has so far reached over a lakh of Self Help Groups covering more than 21 lakh women.

18.17 Care, Support and Treatment: ART Centres provide further lifelong Care and Treatment to people detected as HIV positive at ICTC. These Centres are attached to Government Health facilities. General investigations and CD4 test to assess the immune status of patients are performed at these Centres. Lifelong free Anti Retro Viral (ARV) drugs and Opportunistic Infection (OI) drugs are provided to eligible patients. Various counselling services, referral and linkage services are also rendered through ART Centres. Currently, 93,200 PLHIVs are taking regular treatment through 55 ART Centres. In addition, there are 172 Link ART Centres which act as drug dispensing units closer to their homes. CD4 machines are available at 32 ART Centres. Apart from this, 39 Care and Support Centres provide services like tracking of Lost to Follow Up (LFU) patients, psycho-social support and linkage to various benefit schemes.

18.18 Strategic Information and Management System (SIMS): Strategic Information and Management System (SIMS) is

a web based Integrated Monitoring and Evaluation Service for monitoring and taking corrective steps to streamline the programme. All the units of TANSACS report through this system.

18.19 HIV Sentinel Surveillance: HIV Sentinel Surveillance (HSS) among pregnant women is being conducted in Tamil Nadu during this financial year 2016-2017.

18.20 Special Initiatives: A separate Trust has been established for providing assistance to Orphan and Vulnerable Children (Tamil Nadu Trust for Children affected by AIDS). This trust provides nutritional, educational support to HIV infected and affected children with a corpus fund of Rs.9.5 crore. A monthly pension amount of Rs.1000/- is being provided under the '**Honourable Chief Minister's** Uzhavar Pathukappu Thittam' to the farmers who are affected by TB, HIV/AIDS and other vulnerable diseases. The farmers who are infected by HIV/AIDS taking ART treatment with CD4 count below 350 are eligible under this new scheme. Nearly 5,738 PLHIVs, both men and women are benefitted under this scheme. This scheme is further extended to the children of infected farmers. Tamil Nadu is also in the forefront in extending the social benefit schemes for the People Living with HIV/AIDS (PLHIVs). Free bus passes are issued to PLHIVs to go to ART

centre and back. Top priority is given to PLHIVs to access:

- 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
- v. TAHDCO Loans.

18.21 "30 years of HIV/AIDS": Recently a workshop on "30 years of HIV/AIDS" was conducted at Chennai, in which the Project Director of TANSACS and other key stakeholders participated. Dr.Suniti Solomon and her team were the first to document evidence of HIV infection in India, in 1986. Later, it is pertinent to note that Tamil Nadu was one of the first States to set up a separate AIDS Control Society and obtained NACO funding.

18.22 Various initiatives are being implemented in the State under the directions of the **Hon'ble Chief Minister** has ensured that the State is now the forerunner and a model to other States and countries as its levels have come to 0.27 percent compared to 0.29 percent at All India level and the State is

behind only Cuba and Thailand in ensuring that Mother to child transmission is made next to nil. 16 of the 32 districts in the State have reported nil transmission from positive mothers to children and very soon it is expected that the remaining 16 districts also follow suit. The State is marching towards Zero discrimination, Zero deaths and Zero new cases from HIV/AIDS.

Chapter-19.

TAMIL NADU STATE BLINDNESS CONTROL SOCIETY

19.1 National Programme for Control of Blindness (NPCB) was launched in the year 1976 with the goal to reduce the prevalence of blindness from 1.4% to 0.3%. Subsequently, the implementation of the programme was decentralized in 1994-1995 with formation of District Blindness Control Society in each district of the Country. On 01.04.1996, the Tamil Nadu State Blindness Control Society was formed as a separate entity, to give thrust to the goal by planning, execution and monitoring at the district level. Currently, the Tamil Nadu State Blindness Control Society is functioning under the overall control of Mission Director, State Health Society, State Health Mission, Chennai with effect from 01.04.2007. The Project Director is the Secretary of the society for the implementation of the scheme. Every district in the State has one District Blindness Control Society to govern the activities of the National Programme for Control of Blindness.

19.2 As per Survey in 2001-2002, prevalence of blindness is estimated to be 1.1%. Rapid Survey on Avoidable Blindness conducted under NPCB during 2006-2007 showed reduction in the prevalence of blindness from 1.1% (2001-2002) to 1% (2006-2007).

Various activities/initiatives undertaken during the Five Year Plans under NPCB are targeted towards achieving the goal of reducing the prevalence of blindness to 0.3% by the year 2020. Main causes of blindness are as follows:

Cataract (72.7%), Refractive Error (4.3%), Corneal Blindness (0.9%), Glaucoma (1.1%), Surgical Complication (2.7%), Age Related Macular Degeneration (1.6%) Posterior Segment Disorder (4.3%), Others (2%), Diabetic Retinopathy (1.1%) Estimated National Prevalence of Childhood Blindness/Low Vision is 0.8 per thousand.

19.3 Goals and Objectives of NPCB in the XII Plan:

- i. To reduce the backlog of blindness through identification and treatment of blind at primary, secondary and tertiary levels based on assessment of the overall burden of visual impairment in the Country.
- ii. Develop and strengthen the strategy of NPCB for "Eye Health" and prevention of visual impairment through provision of comprehensive eye care services and quality service delivery.

- iii. Strengthening and upgradation of Regional Institute of Ophthalmology to become centre of excellence in various sub-specialties of ophthalmology. Rupees One crore has been sanctioned for our Regional Institute of Ophthalmology and Government Ophthalmic Hospital, Chennai during last year by the Government of India, yet to be received.
- iv. Strengthening the existing and developing additional human resources and infrastructure facilities for providing high quality comprehensive Eye Care in all Districts of the country; Especially to diagnosis and treatment of Diabetic Retinopathy.
- v. To enhance community awareness on eye care and lay stress on preventive measures;
- vi. Increase and expand research for prevention of blindness and visual impairment;
- vii. To secure participation of Voluntary Organizations/Private Practitioners in eye Care. (58 NGOs are Operating in our State)

19.4 Under the State Health Society, the District Blindness Control Society conducts eye camps with the help of Voluntary Organisations and District Mobile Ophthalmic Units, provides financial assistance to Voluntary Organisations for performing Cataract Operations, undertakes propaganda activities under health education programme in the district and monitors the implementation of the Blindness Control Programme in district level. The State has been a pioneer in tackling blindness, particularly arising from cataract and during the year 2015-16 successfully 5,22,724 persons underwent cataract operations. Government have taken the following measures to increase the cataract surgeries in Government Institutions:

- The District Blindness Control Societies are permitted to hire private Ophthalmic Surgeons to do cataract surgeries in Government Institutions and pay Rs.150/- per cataract case.
- The District Blindness Control Society is permitted to hire private staff nurses trained in the field of ophthalmic surgery to assist cataract surgeries in Government Institutions and to pay Rs.50/- per cataract case.

19.5 The following activities will be carried out during 2016-2017:

- Performing cataract operations and fix Intra-Ocular Lens (IOL)
- Screening of school children for detection of refractive error and provide free spectacles to poor children
- Collection of eyes for transplantation in persons with corneal blindness
- Providing training to eye surgeons in modern cataract surgery and other specialised procedures.
- Enhancing capacities for eye care services in public sector by providing assistance to hospitals at various levels
- Development of eye banks and eye donation centres to facilitate collection and utilisation of donated eyes.

19.6 Pilot Project for Tirunelveli District:

The Queen Elizabeth Trust through Aravind Eye Care System, Tirunelveli, a leading Non Governmental Organisation (NGO) and with the guidance of Indian Institute of Public Health (IIPH), Hyderabad, will undertake screening for Diabetic Retinopathy at Block level. The equipment provision and training will be taken up by the NGO both for the Medical Officers

and Paramedics in 5 Community Health Centres (CHCs), which will be equipped under this scheme. Reference will be made to the Nodal Officer of the Programme in Tirunelveli Medical College Hospital and the Referral point will be Aravind Eye Care System, Tirunelveli.

19.7 Type-I Diabetic screening: With the guidance of IIPH, Hyderabad, patients of Type-I Diabetics will be sent to leading Diabetic Centre at Chennai for scanning. The Regional Institute of Ophthalmology and Government Ophthalmic Hospital, Chennai will be the Nodal training centre for our Ophthalmologists for treatment to these patients, who require Laser treatment and a Green Laser will be provided for the same.

19.8 Statewide screening for Retinopathy of Prematurity: This is being planned and the IIPH, Hyderabad is willing to help and guide to this project also.

Chapter - 20

REVISED NATIONAL TUBERCULOSIS CONTROL PROGRAMME

20.1 The Revised National Tuberculosis Control Programme (RNTCP), based on the Directly Observed Treatment, Short-course (DOTS) strategy, began as a pilot in 1993 and was launched as a National Programme in 1997. Further expansion of RNTCP began in 1998. This Programme was expanded step by step and the entire country was covered under DOTS by 24th March 2006. In respect of Tamil Nadu the Revised National Tuberculosis Control Programme (RNTCP) is implemented from the year 1999. The entire State has been covered under RNTCP since 2002. The RNTCP aims at detecting maximum number of Tuberculosis patients, especially the sputum positive (infectious type) TB patients and curing them through direct short term DOTS Centres (6-8 months) and Programmatic Management of Drug Resistant TB implemented in the State during the year 2009 also aims early diagnosis of Drug TB resistance TB cases and treating (DOTS plus) them for 24-36 months.

20.2 The RNTCP has now entered its second phase in which the Programme aims to firstly consolidate the gains made to date, to widen services both in terms of activities and access and to sustain the achievements for decades to

come in order to achieve ultimate objective of TB control in the country.

20.3 All components of new Stop TB Strategy are incorporated in the second phase of RNTCP. These are:

- **Pursue quality DOTS expansion and enhancement**, by improving the case finding and cure through an effective patient-centred approach to reach all patients to the field level, especially the poor.
- **Address TB-HIV, MDR-TB and others challenges**, by scaling up TB-HIV joint activities, DOTS plus and other relevant approaches.
- **Contribute to health system strengthening**, by collaborating with other health programmes and general services.
- **Involve all health care providers**, public, non-governmental and private, by scaling up approaches based on a Public-Private Mix (PPM), to ensure adherence to the International Standards of TB care.
- **Engage people with TB and affected communities** to demand and contribute to effective care. This will involve scaling up of community TB care; creating demand through context-specific

Advocacy, Communication and Social Mobilization.

- **Enable and promote research** for the development of new drugs, diagnostic and vaccines. Operational Research will also be needed to improve Programme performance.

20.4 The Revised National TB Control Programme now aims to widen the scope for providing standardized, good quality treatment and diagnostic services to all TB patients in a patient-friendly environment, in whichever health care facility they seek treatment from. Recognizing the need to reach to every TB patient in the Country, the programme has made special provisions to reach marginalized sections of the society, including creating demand for services through specific Advocacy, Communication and Social Mobilization activities.

20.5 The Objectives of the current Programme:

- To achieve and maintain more than 85% cure rate among the New Sputum Smear-positive TB cases registered.
- To detect atleast 70% of the estimated new sputum smear positive cases after achieving the objective at 85% cure rate.

- In next five years aims at universal access of 90% case detection and 90% cure of TB Cases.

20.6 The status of the facilities under the Programme in the State are as follows:

- **State and District Infrastructure:**

In Tamil Nadu, at State level TB Cell (STC) and State TB Training and Demonstration Centre (STDC) is functioning with State TB Officer and Director for STDC along with 23 categories of contractual staff. Under STDC, State Drug Store (SDS), Intermediate Reference Laboratory (IRL) are functioning. At District level, District TB Centres (DTC) are functioning with District TB Officers (DTO).

- **TB Units:** There are 464 TB Units. One TB Unit is formed for every 2 to 2.5 lakh population. Each TB Unit is manned by one of the PHC Medical Officers in the Unit, who is designated as Medical Officer TB Control – (MOTC). He is assisted by Senior Treatment Supervisor – (STS) and one Senior TB Laboratory Supervisor – (STLS) and one TB Health Visitor – (TB HV) per lakh urban population.

- **Designated Microscopy Centre (DMC):** There are 823 DMCs in the State. One DMC has been formed for every one lakh population such that there are atleast three DMCs functioning in each TB Unit. Each Microscopy Centre has one Laboratory Technician (LT).
- **Drugs:** The required Anti - TB drugs are supplied in kind by the Central TB Division, New Delhi directly to the Government Medical Store Depot (GMSD) as Patient Wise Boxes (PWB) and from here to the two State Drug Stores (SDS) of Tamil Nadu at Chennai and Tiruchirapalli. From these State Drug Stores, the drugs are distributed to the other districts drug stores in District TB Centres.
- **Monitoring, notification regarding number of cases diagnosed, number of cases treated etc.,:** Web based entry of all patients is now being done online. To ensure effective monitoring, notifications regarding number of cases diagnosed, number of cases treated etc., are registered online at all levels. Notification of cases diagnosed/treated by the private sector is also ensured in all Districts of Tamil Nadu.

NIKSHAY NOTIFICATION	
Year	No. of Patients
2013	2556
2014	4786
2015	4950

20.7 Achievements under RNTCP Programme:

Program Indicators							
Year	Out Patients examined Ratio	Annualized total case Detection per lakh	Annualized Detection rate/new Sputum +ve per lakh	Ratio of new Sputum +ve : -ve	Sputum conversion Rate	Cure Rate	Success Rate
2008	2.1	128	51	1:0.7	90%	84%	85%
2009	2.2	123	50	1:0.6	90%	85%	86%
2010	2.2	124	49	1:0.6	90%	85%	87%
2011	2.0	111	59	1:0.6	91%	86%	87%
2012	1.9	107	49	1:0.7	90%	86%	86%
2013	2.1	107	48	1:0.5	91%	86%	87%
2014	1.8	112	48	1:0.4	85%	83%	85%
2015	1.9	107	46	1:0.6	90%	82%	82%

Programmatic Management of Drug Resistant TB (PMDT)

20.8 Specialised Laboratory Diagnosis Services:

- **Solid Culture (LJ) test** - Intermediate Reference Laboratory (IRL), Chetpet, Chennai.
- **Liquid Culture test (MGIT)** - Intermediate Reference Laboratory (IRL), Chetpet, Chennai.
- **Line Probe Assay (LPA)** is available at IRL Chennai, NIRT Chennai.
- **Cartridge Based Nucleic Acid Amplification Test (CBNAAT)** Gene Expert equipment is available in all Districts except Nilgiris and Thoothukudi.

20.9 Specialised Treatment Services: DOTS plus for MDR & XDR TB:

- **DRTB Centres** or DOTS plus sites.
- Regional Centres at Kancheepuram (Government Hospital for Thoracic Medicine, Tambaram), Vellore, Madurai, Tirunelveli, Thanjavur, Coimbatore where treatment for 2-3 years is initiated and continued at Peripheral Health Institution (PHI) in the Districts.

PMDT SERVICES – MDR TB – YEAR 2015		
No. Screened for MDR TB	No. Diagnosed	Put on Treatment
48035	1365	1027

PMDT SERVICES – XDR TB – YEAR 2015		
No. Screened for XDR TB	No. Diagnosed	Put on Treatment
1076	106	64

20.10 TB – HIV Services: All TB suspects and TB patients screened for HIV and all HIV-TB co-infection patients are started on TB treatment and referred to ART Centres for Anti Retro Viral Treatment and Cotrimoxazole Prophylaxis Treatment (CPT).

Year	HIV Tested	HIV-TB Co-infected	CPT	ART
2010	67797	5837	5009	3442
2011	70611	5413	4666	3690
2012	69279	4982	4480	3920
2013	73916	4903	4672	4453
2014	79175	5284	5141	5024
2015	77292	5289	5146	5017

20.11 Paediatric Services (Diagnosis & Chemoprophylaxis): Tablet Isoniazid is being given for children under 6 years, who are in contact with the smear positive patients.

Chapter – 21

MENTAL HEALTH PROGRAMME

21.1 The Government of India has sanctioned a one-time grant under National Mental Health Programme for strengthening of Psychiatric wings to the following Medical Institutions under the control of the Directorate of Medical Education:

- Madras Medical College Hospital, Chennai
- Government Kilpauk Medical College Hospital, Chennai
- Government Stanley Medical College 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 Kanniyakumari Medical College Hospital, Nagercoil

- Government Theni Medical College Hospital, Theni
- Government Rajaji Hospital, Madurai

Already Tamil Nadu has 1,800 bedded Institute of Mental Health at Chennai. The National Mental Health Programme was initiated by the Government of India to integrate Mental Health with other Health services at the field level. After enactment of Mental Health Act the Board of Visitors and guidelines of State Mental Health Authority are strictly followed. All other various services in the field of Gynaecology, ENT, Dentistry are also made available with the help of Medical Officers of the Hospital. Since the last few decades, Psychiatrists and Psychiatric social workers are working in full strength towards rehabilitation and counselling.

21.2 Objectives of National Mental Health Programme:

- To take (outreach) Mental Health Services to remote village along with other health Services.
- To delegate – assign different tasks – responsibilities in Mental Health Services properly.
- To take Mental Health an indispensable component of General Health Services.

- To integrate all these schemes with other Community/Social development schemes.
- To enlist people's participation in Mental Health Services.

21.3 Districts Implementing the District Mental Health Programme:

Sl. No.	Name of the Districts	Year when initiated
1.	Tiruchirapalli	1997
2.	Madurai and Ramanathapuram	2001
3.	Theni, Kanniyakumari, Dharmapuri, Erode and Nagapattinam	2005-06
4.	Tiruvallur, Kancheepuram, Chennai, Cuddalore, Tiruvarur, Namakkal, Perambalur and Virudhunagar	2007-08
5.	Dindigul, Karur, Pudukottai, Sivagangai, Tiruppur, Thiruvannamalai, Tirunelveli, Thoothukudi and Villupuram	2013-14

21.4 Facilities offering Mental Health Services: Currently the Institute of Mental Health at Chennai is the major Hospital under the Government sector offering all mental health related services. Further a Department

of Psychiatry headed by a senior Psychiatrist is functioning in all the Government run Medical College Hospitals. This department takes care of teaching psychiatry to the medical students and providing treatment to mentally ill patients. Apart from these, psychiatry units are being run in all the District headquarters hospitals in the State. In so far as Private sector is concerned, there are a number of Private Mental Health Nursing Homes/Hospitals for which license is granted by the Director, Institute of Mental Health.

21.5 State Mental Health Authority: This authority is functioning since 1994 under the supervision, direction and control of the State and is mandated with the responsibility of developing, regulating and coordinating 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 office of State Mental Health Authority is functioning in the campus of Institute of Mental Health, Chennai from 01.08.2012. The State Mental Health Authority (SMHA) is responsible for supervising the Psychiatric Hospitals/ Nursing homes and other mental health, 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.

Chapter – 22

COMMUNICABLE DISEASES

22.1 Communicable diseases have been posing a continuous challenge to the mankind. These can be classified into two, as vaccine preventable and those without a vaccine where the strategy has been to prevent and control the causes. Despite the challenges posed by travel and other compounding factors such as environmental health and zoonosis in addition to the possibility of air, water and fomite borne transmissions of communicable diseases, Tamil Nadu has always been in the forefront in prevention, control and treatment of communicable and non-communicable diseases. At the State level the diseases are monitored on a regular basis as part of Integrated Disease Surveillance Programme and State level Epidemic control committee reviews this. At the district level, the District Collectors play a critical role in ensuring effective inter-sectoral coordination which has been pivotal to all the progress that we have achieved in the field of health care, public health and family welfare. The State has established procedures by which any outbreak or potential outbreak is effectively tackled. However considering the risks of emerging diseases and newer strains of existing diseases, the Public Health machinery is always on a state of alert to effectively prevent and control any episodes.

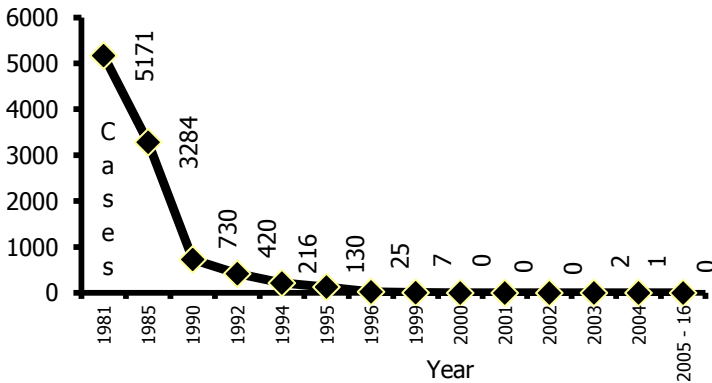
22.2 Vaccine Preventable Diseases: Vaccine Preventable Diseases (VPDs) namely diphtheria, pertussis, tetanus, poliomyelitis, tuberculosis, hepatitis B, haemophilus influenza B and measles are covered under the Universal Immunization programme.

Immunization Programme

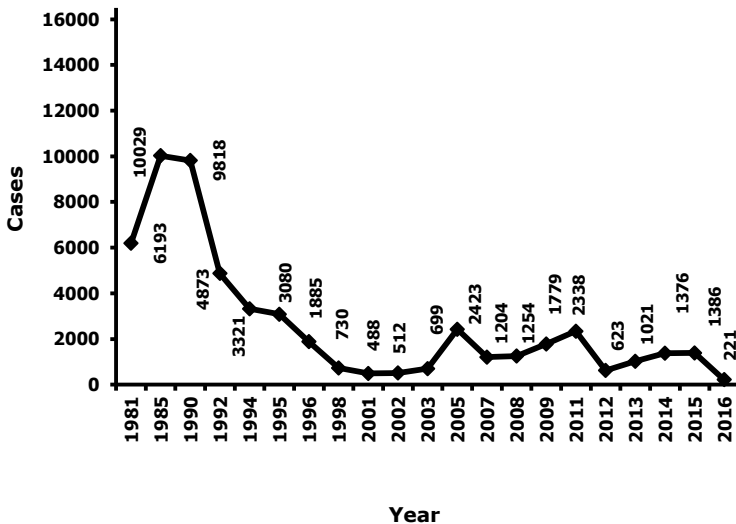
22.3 Immunization Programme aims to reduce mortality and morbidity due to vaccine preventable diseases (VPDs), particularly for children. Under the Immunization Programme, vaccines are used to protect children and pregnant mothers includes TB, Diphtheria, Pertussis, Tetanus, Polio and Measles. Tamil Nadu started the immunization programme against six vaccine preventable diseases in 1978. In order to strengthen the programme further Universal Immunization Programme (UIP) was launched in 1985. Annually, around 12 lakh pregnant women and 11 lakh infants are being covered under this programme. Pregnant mothers are immunized every year with tetanus toxoid injection for prevention of tetanus infection during delivery. Pentavalent vaccine was introduced in Tamil Nadu from 21st December, 2011 onwards. Pentavalent vaccine gives protection against five vaccine preventable diseases namely diphtheria, pertussis, tetanus, hepatitis-B and Haemophilus influenza-B with fewer needle

pricks to a child. The State has consistently reported coverage of over 95%. Because of this consistent immunization for more than two decades, vaccine preventable diseases like neonatal and maternal tetanus, diphtheria, whooping cough have disappeared from the State. Polio free status is maintained for the past twelve years. There has also been a significant reduction in measles cases.

Incidence of Polio Cases Since 1981



Incidence of Measles Cases Since 1981



Pulse Polio Immunization (PPI)

22.4 The State is polio free since 2004. For the eradication of poliomyelitis, Pulse Polio Immunization campaign was introduced in the year 1995-96, which along with efficient routine immunization coverage has successfully eliminated the dreaded disease from the State. During 2016, two rounds of pulse polio immunization campaigns have been conducted on 17.01.2016 and 21.02.2016 as part of the Nation-wide Intensified Pulse Polio Immunization campaign in order to prevent the importation of polio virus and to sustain the zero polio status.

Japanese Encephalitis Vaccination Programme

22.5 Japanese Encephalitis (JE) vaccination programme is being implemented in identified endemic districts namely Cuddalore, Villupuram, Virudhunagar, Madurai, Thiruvavur, Tiruchirapalli, Perambalur, Ariyalur, Thanjavur, Tiruvannamalai, Pudukottai, Karur and Thiruvallur to prevent Japanese Encephalitis especially among children in the age group of one to fifteen years.

Mission Indradhanush

22.6 Immunization Special Campaign 2015

The Ministry of Health and Family Welfare (MoHFW) GoI, have launched **Mission Indradhanush** in December, 2014 to achieve more than 90% full immunization coverage in the country by 2020 (from 65% to 90%). A special drive to vaccinate all unvaccinated and partially vaccinated children below 2 years and Pregnant Women under Universal Immunization Programme (UIP). The Government have identified 201 high focus districts across the Country that have nearly 50% of all unvaccinated or partially vaccinated children in the Country. In Tamil Nadu, the following eight districts Coimbatore, Kancheepuram, Madurai, Tiruchirapalli, Tirunelveli, Thiruvallur, Vellore and

Virudhunagar were identified and covered in the first phase. In the second phase, Government of India have identified and covered in the following 19 districts in Tamil Nadu viz. Ariyalur, Chennai, Coimbatore, Cuddalore, Dharmapuri, Dindigul, Kanniyakumari, Nagapattinam, Perambalur, Pudukottai, Salem, Sivagangai, Thanjavur, Thiruvarur, Tirunelveli, Tiruvannamalai, Tuticorin, Villupuram and Virudhunagar. In the third phase, Government of India identified Coimbatore district and all the four rounds have been completed.

22.7 Flood Affected Area – Special Measles Vaccination Campaign

Special Measles vaccination campaign was conducted in flood affected High risk areas viz. Chennai, Kancheepuram, Thiruvallur, Cuddalore and Tuticorin districts among children in the age group of 9 months to 15 years. 9,470 camps were conducted and 8,90,070 children were vaccinated. While the State Public Health department is prepared to tackle all the communicable diseases, in the present chapter details of select few diseases which have recently raised epidemiological challenges and certain national programmes along with the implementation status have been elaborated.

A H1N1 Disease (Swine Flu)

22.8 Swine flu is one of the types of Influenza fever. It affects the respiratory system of the human body. While originally it occurred in pigs, the current infection is limited to transmission among person to person only. With regard to occurrences in the recent past, the first case of A H1N1 swine flu was reported in May, 2009 in Mexico Country and spread over 214 countries throughout the world, following which on 11th June, 2009, WHO declared the spread of Influenza A H1N1 as Pandemic. However in 2010, since the Pandemic Virus started behaving more like a seasonal influenza virus, the WHO downgraded its pandemic alert and declared this is as a seasonal Influenza. While the cases have been seasonally reported time to time since then, in 2015 in many North Indian States and other parts of India, there were outbreaks and at the All India level over 42,248 cases and 2,922 deaths have been recorded. In Tamil Nadu in 2015, because of pro-active and preventive steps taken by our State, we were able to contain it and the death toll was less than one percent of the deaths recorded throughout India. During the current year, the prevention and control measures for Swine-flu are continued in the same zeal.

Ebola

22.9 Ebola is a type of Viral Fever and while the disease was seen in the Western African Countries based on the WHO Guidelines and Government of India instructions, necessary preventive measures are taken by the Government of Tamil Nadu. In India, no cases have been reported and in Tamil Nadu the entry point surveillance of passengers returning from the affected African countries was continued till WHO declared the end of the Public Health Emergency of International Concern regarding the Ebola virus disease outbreak in West Africa on 29.3.2016.

National Vector Borne Disease Control Programme and Epidemic Control Activities

22.10 At present the State is implementing multi-various initiatives in vector control through the Directorate of Public Health and Preventive Medicine and also the local bodies. The National Vector Borne Disease Control Programme supports these initiatives as part of the National Health Mission. Similarly the State maintains a constant vigil against water borne diseases including diarrhoea and other public health scares such as Swine-flu, other forms of Influenza, Rabies, etc. Some of the disease specific initiatives are listed below:

Dengue

22.11 Dengue Fever (DF), an outbreak prone viral disease is transmitted by *Aedes* mosquitoes. Dengue Fever is characterized by fever, headache, muscle and joint pains, rash, nausea and vomiting. Some infection results in Dengue Haemorrhagic Fever (DHF) - a syndrome that in its severe form can threaten the patient's life primarily through increased vascular permeability and shock. Dengue Fever and Dengue Haemorrhagic Fever are caused by the four dengue viruses DEN 1, 2, 3 and 4, which are closely related antigenically. Infection with one serotype provides lifelong immunity to that virus but not to the others. Though Tamil Nadu has been able to keep Dengue under control, currently it is reported in more than 100 countries and has been reported from almost all the States in India. In Tamil Nadu, for diagnosis of the disease, the Government of India has identified 31 Sentinel Surveillance Hospitals including Medical College Hospitals, Zonal Entomological Teams, Institute of Vector Control and Zoonosis, Hosur and District Headquarter Hospitals, Cuddalore and Ramanathapuram and one Apex laboratory at King Institute of Preventive Medicine and Research, Guindy for diagnosis of Dengue and Chikungunya. This facility has also been extended to other Headquarters Hospitals by

the Government and at present we have 75 Elisa testing centres. The Public Health department in coordination with the local bodies and other departments regularly undertake elimination of vector breeding places, like artificial containers such as broken utensils, discarded tyres, plastic waste cups and broken bottles which are critical for the control of Aedes mosquitoes and spread of dengue fever.

22.12 The State which had reported 4,535 cases with 12 deaths in 2015 and during the current year (as on 03.08.2016), 1143 cases with 3 deaths reported. Daily surveillance is carried out and the disease is now fully under control.

Chikungunya

22.13 Chikungunya is caused by a virus and transmitted to humans by Aedes mosquitoes. There is a decline in Chikungunya cases due to the control measures taken by the Government. 329 cases in 2015 and in the current year (upto 03.08.2016) 39 cases have been reported. The prevention and control measures against Chikungunya are carried out in an integrated manner with the Dengue control measures.

Malaria

22.14 Though in the recent years Dengue has been the main Public Health concern, Malaria also continues to remain an important public health issue. Malaria is a potentially life threatening parasitic disease caused by parasites known as *Plasmodium vivax* (*P.vivax*), *Plasmodium falciparum* (*P.falciparum*), *Plasmodium malariae* (*P.malariae*) and *Plasmodium ovale* (*P.ovale*). It is transmitted by the infective bite of *Anopheles* mosquito, man develops disease after 10 to 14 days of being bitten by an infective mosquito. The two types of parasites of human malaria, ***Plasmodium vivax***, ***Plasmodium falciparum***, which are commonly reported from India. Inside the human host, the parasite undergoes a series of changes as part of its life cycle. The parasite completes life cycle in liver cells and red blood cells. Infection with *P.falciparum* is the complicated form of malaria. While 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, Dharmapuri, Krishnagiri, Thiruvannamalai and Kanniyakumari Districts. The total number of positive cases recorded in the State last year was 5,587. In the current year (up to 03.08.2016), 1671 malaria cases have been reported. The vector control

initiatives are now taken up by the local bodies in a comprehensive manner and are not limited to Dengue specific mosquito control.

Multi-Dimensional approach to mosquito borne diseases control

22.15 The mosquito borne diseases have become a Global challenge even in western and developed Countries, South East Asian Nations and countries across the continents. When we faced a similar challenge in 2012, to prevent and control the incidences, the **Hon'ble Chief Minister** conducted a series of review meetings and issued detailed instructions. Accordingly, at the district level, the District Collectors have been coordinating the control measures by involving all the departments with the Public health department and local bodies acting as the coordinating department. Some of the important actions implemented based on the decisions of review meetings conducted by the **Hon'ble Chief Minister** were :

- Release of short films and advertisements educating the masses of their role in preventing mosquito breeding. Ensuring sustained Information, Education and Communication (IEC) campaign to educate the masses of their role in preventing mosquito larval breeding and making people aware on the steps taken by the Government to counter the

communicable diseases

- Ensuring that the facilities for effective treatment of diseases are easily available at the nearest health facilities and providing adequate and easy access to diagnosis and treatment facilities such as Elisa test centres, cell counters, medicines, blood and blood components
- Organizing entomological surveillance, employing adequate manpower both in local bodies and on the public health side for identifying and eradicating sources of breeding by providing adequate equipment and larvicides for vector control
- Sending rapid response teams and medical teams to the sites reporting higher incidence of fever and creation of special fever wards
- Conducting fever camps
- Putting in place 10 persons per block under the Health Department, 20 persons per block through the Rural Development Department and additional labourers in Town Panchayats/Municipalities and Corporations for identifying and eliminating sources of breeding

- Providing adequate equipment for vector control
- Action against quacks and over the counter sale of medicines without prescriptions
- Making available traditional Indian Medicines such as NilaVembu, MalaiVembu and Papaya leaf juice and promoting natural healing
- Taking multi-pronged multi department actions in identified hot spots

The District Collectors take continuous action to review and control these vector borne diseases at the field level.

Japanese Encephalitis

22.16 Japanese Encephalitis (JE) over the years has emerged as one of the major public health problems in the country due to its complex eco-epidemiology. Subsequent to a major outbreak of suspected Japanese Encephalitis in eastern Uttar Pradesh in 2005, Government of India took up the initiative of introducing Japanese Encephalitis vaccine in high priority endemic areas in 2006. Simultaneously Directorate of National Vector Borne Disease Control Programme (NVBDCP) was vested with the responsibility of Prevention and Control of

Japanese Encephalitis/ Acute Encephalitis Syndrome (JE/AES) in programme mode which resulted in development of technical guidelines for operationalizing programme components in 2007. The guidelines covered all the important areas of Disease Surveillance, Prevention and Control and case management aspects. In view of the evidence of the entero-viral and other non-JE infections circulating in the endemic areas of eastern Uttar Pradesh, Directorate of NVBDCP revised the above guidelines for including management of encephalitis as a result of entero-viral infections during 2009.

22.17 Japanese Encephalitis (JE) is a mosquito borne zoonotic viral disease. The virus is maintained in animals, birds, pigs, particularly the birds belonging to family Ardeidae (e.g. Cattle egrets, pond herons, etc.) which act as the natural hosts. Pigs and wild birds are reservoirs of infection and are called as amplifier hosts in the transmission cycle. The virus does not cause any disease among its natural hosts and transmission continues through mosquitoes primarily belonging to Culexvishnui sub group mosquitoes. Vector mosquito is able to transmit JE virus to a healthy person after biting an infected host with an incubation period ranging from 5 to 14 days. The children suffer the highest attack rate because of lack of cumulative immunity due to natural infections. Realizing the gravity

of problem of AES & JE in the country, Government of India is implementing the National Programme for Prevention and Control of JE/AES.

Strategy

22.18 Tamil Nadu is one of the five States where this programme is being implemented. Japanese Encephalitis Control Units at Cuddalore, Villupuram, and Perambalur with Monitoring Unit in Chennai are carrying out Japanese Encephalitis Vector Control activities. Perambalur, Ariyalur, Villupuram, Cuddalore, Thiruvannamalai, Virudhunagar, Tiruchirapalli, Thanjavur, Tiruvarur, Madurai, Pudukottai, Karur and Thiruvallur districts reported JE cases. After completion of JE immunization in campaign mode in all the above districts for the children 1-15 years of age, JE vaccination has now been brought under routine immunization. First dose of JE vaccine is administered after ninth month and second dose is administered between 16-24 months. JE vector monitoring is being carried out regularly in the endemic districts. Fogging operation is being carried out in villages where suspected JE cases are reported.

Acute Encephalitis Syndrome

22.19 Acute Encephalitis Syndrome (AES) Surveillance is being carried out in District

Headquarters Hospitals, Medical College Hospitals and major private hospitals. During 2015, 847 cases without any fatality and during the current year (upto 03.08.2016), 275 cases were reported without any fatality. As part of the JE/AES programme, Paediatric Intensive Care Units (PICU) are being strengthened in Medical College Hospitals in Villupuram, Madurai, Thanjavur, Tiruvarur and District Headquarters Hospital in Karur. Physical Medicine and Rehabilitation Department (PMRD) is being established at Government Rajaji Medical College Hospital, Madurai. All the paediatricians in these institutions are being given intensive training in managing AES/JE cases. Following are the list of Sentinel Surveillance Hospitals where samples of suspected JE cases are referred for testing:

- King Institute of Preventive Medicine and Research, Guindy
- KAP Viswanatham Government Medical College, Tiruchirapalli
- Government Villupuram Medical College, Villupuram
- Government Thanjavur Medical College, Thanjavur
- Government Madurai Medical College, Madurai

- Government Tirunelveli Medical College, Tirunelveli
- Government Coimbatore Medical College, Coimbatore

The positive cases requiring tertiary care are referred to Government Medical College Hospitals with Paediatric Intensive Care Unit (PICU) where the cases are treated. Currently, the disease in the State is under control. However vaccination and disease surveillance protocols prescribed for these diseases are being followed carefully.

Filaria

22.20 The National Filarial Control Programme is under implementation in the State from 1957 with current control activities being carried out in 43 urban areas. 25 control Units and 44 Night Clinics are presently functioning. Mass Drug Administration Programme with Diethyl Carbamazine Citrate (DEC) tablet started in 1996 in Cuddalore District as a pilot project and it is being carried out from 1997-98 in all endemic districts. 25,176 Lymphatic filariasis cases have been recorded in this State. Morbidity management kits are also issued to these patients for foot care. Mass Drug Administration for 2014 was conducted in Thiruvannamalai and Cuddalore Districts. Since most of the Filaria endemic districts have

reported less than 1% Micro Filaria Rate, during the current year, Transmission Assessment Survey had been completed using Immuno-chromotography test kits in 16 Districts, as per the WHO guidelines. Government is providing financial assistance to the Grade IV Filaria patients at the rate of Rs.1000/- per month. 5,654 patients have been benefitted by this scheme for which Government have allotted Rs.6.78 crore.

Leptospirosis

22.21 Leptospirosis is one of the serious zoonotic diseases which require timely diagnosis, treatment and control measures. A State Level Reference Laboratory is functioning at State Headquarters to provide laboratory confirmation and training. 1,284 cases were recorded during 2015. During the current year, 515 cases are reported (upto 03.08.2016).

Epidemic Control Activities at the district level

22.22 The District Collectors, being the Chairpersons of the District Coordination Committee to control epidemic diseases, hold timely reviews to ensure the prevention and control of these diseases at the field level in order to reduce the spread of communicable diseases and contain epidemic outbreak. The epidemic control committee also oversees the

prevention of other communicable diseases, waterborne diseases including diarrhoea, infective diseases such as Swine-flu and other forms of Influenza, rabies etc. All such diseases have been prevented and in occasional cases of outbreak have been localized and treated completely to ensure that people's health is not put at risk.

22.23 While the State level epidemic monitoring committee and the Public health disease surveillance look at the overall monitoring and the State level coordination issues with all departments and the stakeholders, at the district level the Collectors are involved in ensuring the prevention of the other public health challenges like outbreak of acute diarrhoeal diseases by taking effective steps such as – ensuring that the water tanks are cleaned regularly, testing samples, preventing sewage contamination, ensuring effective solid waste management practices etc. Other localized disease occurrence if any, like Chikungunya, Malaria, Leptospirosis, Typhoid, Influenza, Encephalitis etc., whenever detected are tackled and controlled immediately. Sustained anti larval measures, improving environmental sanitation and public hygiene in districts through effective coordination with the local bodies, health, other-line departments and also involving the communities have been the cornerstone in the

effective prevention and control strategy adopted by the State against communicable diseases.

Integrated Disease Surveillance Project (IDSP)

22.24 Integrated Disease Surveillance Project (IDSP) was launched with World Bank assistance in November, 2004 to detect and respond to disease outbreaks quickly. The project was extended for two years in March, 2010. From April, 2010 to March 2012, World Bank funds were available for Central Surveillance Unit (CSU) at NCDC and nine identified States (Uttarakhand, Rajasthan, Punjab, Maharashtra, Gujarat, Tamil Nadu, Karnataka, Andhra Pradesh and West Bengal) and the rest 26 States/UTs were funded from domestic budget. The Programme continues during 12th Plan under NRHM from domestic budget only.

22.25 District Public Health Laboratories (DPHL) under IDSP

Laboratory services are an essential component of disease surveillance, epidemiological surveys and operational research. Modern medicine is increasingly dependent on laboratory services for the prevention, diagnosis and management of diseases. Public Health Laboratories (PHL) play an important role in the hospital based

and community based health services. The District Public Health Laboratories (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. Since its establishment in May 2013, there has been a steady increase in the volume of clinical samples processed and number of tests performed in the DPHL. In 2015, a total of 52,783 tests were done in the DPHL. The role of DPHL in the laboratory confirmation of outbreaks of communicable diseases have also been improved from 6.4% in 2013 to 33.8% in the year 2015. Currently, from January to March 2016, the contribution of DPHL in laboratory confirmation of outbreak is 54%.

22.26 International Health Regulations (2005)

The International Health Regulations (2005) or "IHR (2005)" are an international law which helps countries work together to save lives and livelihoods caused by the international spread of diseases and other health risks. They entered into force on 15 June, 2007 and are binding on 194 countries across the Globe,

covering all WHO Member States/Countries including India. The 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. The IHR (2005) are also designed to reduce the risk of disease spread at international airports, ports and ground crossings. The IHR (2005) establish a set of rules to support the global outbreak alert and response system and to require countries to improve international surveillance and reporting mechanisms for public health events and to strengthen their national surveillance and response capacities. This makes the IHR (2005) central to ensuring global public health security. The IHR (2005) require Countries to notify WHO of all events that may constitute a public health emergency of international concern and to respond to requests for verification of information regarding such events. This enables WHO to ensure appropriate technical collaboration for effective prevention of such emergencies or containment of outbreaks and under certain defined circumstances, inform other States of the public health risks where action is necessary on their part.

22.27 Public Health Emergency of International Concern in IHR (2005)

A Public Health Emergency of International Concern refers to an extraordinary public health event which is determined, under specific procedures:

(a) To constitute a public health risk to other States / Countries through the international spread of disease like Ebola Viral Disease (EVD), Zika Virus etc., and

(b) To potentially require a coordinated international response.

22.28 Specific Diseases under the IHR (2005):

Under the IHR (2005), all cases of these four diseases must be automatically notified to WHO

- i. Smallpox,
- ii. Poliomyelitis due to wild-type poliovirus,
- iii. SARS and
- iv. Cases of human influenza caused by a new subtype

Vaccination against Yellow Fever is required for any traveller leaving an area where the WHO

has determined that a risk of Yellow Fever transmission is present. In Tamil Nadu, two international vaccination centres have been established one at King Institute of Preventive Medicine and Research, Guindy, Chennai functions on Tuesday and Friday and another at Port Health Organization, Chennai functions on Monday and Wednesday. Airport and Seaport screening for the international travellers are regularly being done to monitor the spread of diseases notified by WHO as Public Health Emergency of International concern. Regular mosquito control measures are also being undertaken in the Airport and Seaport to prevent and control the spread of vector borne diseases.

Community Hygiene and Sanitation campaign

22.29 With a view to prevent and control the occurrences of communicable diseases, occurrence in the community a sustained campaign was launched to raise awareness on personal hygiene, community hygiene and sanitation. The main objective is to bring about a change in behaviour of individuals and the community in making them to adopt Hygiene and Sanitation as a Public movement. For that, continuous IEC activities are being done through the Public Health department. At a time when most of communicable diseases are

either arthropod, rodent or animal borne or on account of unhygienic practices encouraging spread and transmission of such diseases similar to the "One Health strategy". An effective interdepartmental coordination between the relevant stakeholders has also been put in place to nip the spread of communicable diseases in the bud along with equal emphasis on creating awareness on personal and community hygiene practices. In this campaign, the main areas of thrust are:-

- Hand washing / Hand Hygiene
- Respiratory Hygiene
- Personal / Reproductive Hygiene
- Deworming
- Environmental Sanitation – solid and liquid waste management
- Effective inter-departmental coordination
- Encouraging stakeholder participation to make it into a public movement

22.30 Hygiene is most important component in the prevention and control of diseases spread through Air / Fomite, Water, Food, Vector and Zoonotic causes. The Government of Tamil Nadu is implementing the above campaign in coordination with line Departments chaired by

the District Collectors, who also head the District level epidemic co-ordination committee. Simple messages are spread through these 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.

22.31 Water Analysis Laboratories - Water Quality Monitoring: The Water Analysis Laboratories, established in Chennai and Coimbatore, Tiruchirapalli and Tirunelveli collect and examine water samples from various protected water sources to control pollution and contamination of drinking water. These laboratories also assist the Tamil Nadu Pollution Control Board in examining samples of industrial wastes and conducting field surveys to ensure the prevention and control of environmental and industrial water pollution. Additionally the local bodies, TWAD and CMWSB also independently do such testing at their levels also.

22.32 Epidemic Information 24 x 7 cell: This 24 x 7 Epidemic Information Cell was created from this Department and functions under Epidemic Control Scheme. **24 x 7 Epidemic Information Cell** contact numbers 044-24350496, 044-24334811 and 9444340496 have been extensively publicized

to ensure that people can share and get factual information.

Functions of the Epidemic Information Cell

- Information collected from the 42 Health Unit Districts (HUDs) about A.D.D. / 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.
- 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.
- This Information Cell also receives information about the occurrence of diseases and communicates the same to the respective District and State Level Officers concerned of this Department for the necessary prevention and control of diseases.
- Health related issues received from Newspaper and Television and also during natural disasters such as earthquake, flood and cyclone are also communicated.

One Health Initiative

22.33 Tamil Nadu is one of the first States' in India which has started working on the "One Health Initiative". Under this, the 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 mainly be expanded to research to supplement the efforts in respective fields.

Chapter-23

NON COMMUNICABLE DISEASES INCLUDING STATE INITIATIVES AND THE NATIONAL PROGRAMME FOR PREVENTION AND CONTROL OF CANCER,DIABETES AND CARDIO-VASCULAR DISEASES

23.1 Non-Communicable Diseases Intervention Programme implemented by Government of Tamil Nadu is the first of its kind to be implemented on a very large scale in India. The Programme was implemented successfully until 15 September, 2015 by World Bank supported Tamil Nadu Health Systems Project (TNHSP). With the closure of TNHSP, one of the flagship projects of the Government of Tamil Nadu, all the activities under the programme are continued and sustained under National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) of Government of India and also with additional funding support from Government of Tamil Nadu. The programme is being implemented in all the 32 districts in Tamil Nadu involving 2,143 Government Medical Institutions Municipal / Primary / Secondary and Tertiary Care Medical Institutions. 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 attending any Government Health facility in the State. In case of Hypertension and Diabetes Mellitus besides insisting on regular treatment with drugs and follow up, the programme also focuses on 'Life Style Modification' by providing counselling to individuals detected with the disease.

23.2 Cardio Vascular Diseases (CVD) Prevention and Control Programme: From July, 2012 to June, 2016, 3,40,95,422 individuals aged 30 years and above were screened for Hypertension out of whom 32,25,327 were found to be positive. The identified Hypertensive patients are being treated appropriately and monitored by follow-up for any complications due to hypertension. Under NPCDCS, activities have also been initiated to strengthen the Intensive Care Units (ICUs) in 13 District Headquarters Hospitals and two Medical College Hospitals. This would be expanded to other districts in the State.

23.3 Prevention and Treatment of Diabetes Mellitus: As part of this, individuals aged 30 years and above attending Out-Patient Department in any of the Government Health Facilities in all 32 districts in Tamil Nadu are screened for Diabetes Mellitus. From July, 2012 to June, 2016, out of 2,71,24,107 individuals screened for Diabetes Mellitus, 11,28,637

patients have been identified with the disease and brought under treatment and follow-up.

23.4 Prevention and Treatment of Cervical Cancer: From July, 2012 to June, 2016, 1,17,33,084 women have been screened for cervical cancer, of whom 3,87,691 were detected positive in the screening test. They have been referred to higher institutions for confirmation and further follow up treatment as per protocol.

23.5 Prevention and Treatment of Breast Cancer: All women aged 30 years and above attending out-patient wing in any Government facility in all 32 Districts in Tamil Nadu can get screened under this programme. In this programme, women besides being taught about Self Breast Examination (SBE), also undergo a screening test called Clinical Breast Examination (CBE). Those women, who are detected with any abnormality or lump in the Breast, are subjected to further tests and treatment in the nearby tertiary care centres. From July, 2012 to June, 2016, 1,43,67,028 women were screened for Breast Cancer, of whom 1,72,079 women were found positive and referred to higher institutions for further evaluation and follow-up as per protocol.

23.6 Day-care Chemotherapy Units in selected districts: Under NPCDCS, Day-care

Chemotherapy units are being planned in selected districts during 2016–17.

23.7 State level and Regional Cancer

Centres: Adyar Cancer Institute in Chennai is functioning as State level higher treatment centre for Cancer and orders have been issued to upgrade it as “Centre of Excellence” at a cost of Rs.120 crore. Four Regional Cancer Centres are being established in Government Rajaji Hospital, Madurai at a cost of Rs.14.26 crore, Coimbatore Medical College Hospital at a cost of Rs.14.37 crore, Thanjavur Medical College Hospital at a cost of Rs.15 crore, and Tirunelveli Medical College Hospital at a cost of Rs.15.06 crore. In order to provide specialized and comprehensive cancer care and to provide training and research pertaining to all types of cancer with focus on oral, cervical and breast cancer, Government have identified the following six institutions:

- i. Government Arignar Anna Memorial Cancer Institute, Kancheepuram
- ii. Mahatma Gandhi Memorial Government Hospital, Tiruchirappalli
- iii. Institute of Non communicable Diseases and Government Royapettah Hospital, Chennai
- iv. Government General Hospital, Chennai
- v. Institute of Obstetrics and

Government Hospital for Women and Children, Chennai

- vi. Thanjavur Medical Colleges Hospital, Thanjavur

23.8 State level Cancer Registry: In association with the Adayar Cancer Institute, the State has set up a Cancer Registry which collects data and it could be used to analyse or find any pattern and tackle the issue proactively.

Chapter – 24

OTHER NATIONAL PROGRAMMES

National Tobacco Control Programme

24.1 India faces the challenge of double burden of Non-Communicable Diseases and Communicable Diseases. High prevalence of tobacco use is largely responsible for cardio vascular diseases and cancer. In order to prevent Non Communicable Diseases and promote hygiene, Government of Tamil Nadu have enacted the Tamil Nadu Prohibition of Smoking and Spitting Act, 2002 and Rules, 2003. “The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003” (COTPA) was enacted by Government of India.

24.2 Essentially all body systems, namely nervous, respiratory, digestive, circulatory and haematological, immune, endocrine and metabolism, excretory, reproductive, sensory, cutaneous and skeletal systems are affected by smoking. Harmful effects of tobacco are due to its harmful constituents.

24.3 National Tobacco Control Programme (NTCP) was launched with the aim to

- i. create awareness about the harmful effects of tobacco consumption,

- ii. reduce the production and supply of tobacco products,
- iii. ensure effective implementation of the provisions under COTPA
- iv. help the people to quit tobacco use and
- v. facilitate implementation of strategies for prevention and control of tobacco advocated by WHO Framework Convention of Tobacco Control.

24.4 The National Tobacco Control Programme is being implemented in Tamil Nadu since 2003. The main thrust areas for the NTCP are -

- i. Training of health and social workers, NGOs, School teachers, and enforcement officers
- ii. Information, Education and Communication (IEC) activities
- iii. School Programmes
- iv. Monitoring of tobacco control laws
- v. Coordination with Panchayat Raj Institutions for village level activities
- vi. setting-up and strengthening of cessation facilities including provision of

pharmacological treatment facilities at district level.

24.5 At the State level, a Tobacco Control Cell is functioning in the Directorate of Public Health and Preventive Medicine since 2007 and likewise at the district level, the District Tobacco Control Cells are functioning under the supervision of the Deputy Director of Health Services. The State Government have already banned the manufacture, storage and usage of Pan Masala and Gutka under the Food Safety and Standards Act, 2006 giving a fillip to the Tobacco control activities.

24.6 Since the launch of the programme, 1,112 training programmes were organized and 59,759 persons from various Departments were sensitized on Tobacco Control. Mass Campaigns like Celebration of 'World No Tobacco Day', Rallies, IEC on Wheels, Human Chain, Signature Campaign, distribution of pamphlets, competitions are organized every year under this programme. This year also the **"World No Tobacco Day"** has been celebrated on 31.05.2016 by giving massive awareness to Health Care Providers for the effective implementation of this Programme at grass root level. Due to the awareness programs conducted all over the State resulted in the declaration of 12,780 schools and 1,338 colleges as Tobacco Free Educational

Institutions. Police Commissioners' Offices, Police Stations, all public transports, 12,170 Postal Circles, all Government Medical Colleges, Government Health facilities, all Government Buildings, Hotels/Restaurants/ Malls/Slums are declared as Smoke Free Areas. Tobacco Cessation Centres are established in the Block Primary Health Centres of Villuppuram and Kancheepuram districts. Furthermore, proposed to establish Tobacco Cessation Centres in PHCs of Madurai, Coimbatore and Trichy districts. 280 medical officers, 32 ICTC counselors and 88 staff nurses, 78 youth health volunteers are trained on cessation methodologies. Tamil Nadu ranks first in India for implementation of Cigarettes and Other Tobacco Products Act, 2003 and so far, collected total fine amount of Rs.1.61 crore from 1,32,042 persons for violating the provisions of the Act.

National Iodine Deficiency Disorders Control Programme (NIDDCP)

24.7 This programme is implemented as part of the National Health Mission. 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 iodised salt in place of common salt.
- Resurvey after every 5 years to assess the extent of Iodine Deficiency Disorders and the impact of iodised salt.
- Laboratory monitoring of iodised salt and urinary iodine excretion.
- Health education and publicity.

National Leprosy Eradication Programme

24.8 The National Leprosy Eradication Programme is a centrally sponsored Health Scheme of the Ministry of Health and Family Welfare, Government of India. While the NLEP strategies and plans are formulated centrally, the programme is implemented by the States/UTs. The Programme is also supported as partners by the World Health Organization, the International Federation of Anti-leprosy Associations and certain Non-Governmental organizations.

24.9 Leprosy is a chronic infectious disease caused by *Mycobacterium leprae*. It usually affects the skin and peripheral nerves, but has a wide range of clinical manifestations. The disease is characterized by long incubation period generally 5-7 years and is classified as paucibacillary or multi bacillary, depending on the bacillary load. Leprosy is a leading cause of

permanent physical disability. Timely diagnosis and Multi-Drug Therapy (MDT) treatment of cases, before nerve damage has occurred, is the most effective way of preventing disability due to leprosy. The earliest records of a 'leprosy like' disease come from Egypt, dating as far back as 1400 BC. In China and India the first records appeared in the sixth century BC. In China, a disciple of Confucius named Pai-Nie suffered from a disease resembling lepromatous leprosy, which was known at that time as 'li' or 'lai'. In India, leprosy was first described in the Sushruth Samhita and treatment with 'Chaulmoogra' oil was known at that time.

24.10 Initially, leprosy patients were isolated and segregated. Communities were hostile to them and the patients were also self conscious and afraid to mix with the community. Leprosoria to segregate the patients from the community were built in Europe in the middle ages. Several Statutory Acts and Laws were also enacted during that time against them. A drug "Chaulmoogra" oil was used for leprosy treatment until "Dapsone" was discovered with anti-leprosy effects during 1940s. It was in 1970s when MDT consisting of Rifampicin, Clofazimine and Dapsone were identified as cure for leprosy which came into wide use from 1982 following the recommendations of WHO. Since then the services for leprosy patients

gradually changed from institutional to outpatient care through health centres and field clinics. Gradually the infected and cured leprosy patients began to be accepted by the Community as a result of intensive health education and visibly successful results of MDT.

24.11 Milestones in NLEP

- 1955 - National Leprosy Control Programme (NLCP) launched
- 1983 - National Leprosy Eradication Programme (NLEP) launched
- 1983 - Introduction of Multidrug therapy (MDT) in Phases
- 2005 - Elimination of Leprosy at National Level
- 2012 - Special action plan for 209 high endemic districts in sixteen States/UTs

24.12: In Tamil Nadu, during the year 1954-55, National Leprosy Eradication Programme (NLEP) was launched. The main objective of this scheme is to identify the cases early and cure them completely. The prevalence rate of the Leprosy in 1983 was 118 per 10,000 population. In 2005, the prevalence of leprosy declined to less than one per 10,000 population and the State achieved leprosy elimination status. The prevalence rate is 0.41 per 10,000

populations as on March, 2016. Intensive activities are carried out in 88 high endemic blocks where new case detection rate is more than 10 per 1,00,000 population during 2015-16. Re-constructive Surgery has been done to 100 patients in 2015-16 and special variety of chappals were given to 8,772 patients. Self-Care kit to deformed Leprosy patients issued is 11,808. At present, 4,595 Leprosy affected persons are receiving pension of Rs.1,000/- per month other than those already availing the pensions under the Old Aged Pensions scheme.

Chapter – 25

GERIATRIC CARE

25.1 Elderly person needs care closer to their homes. Presently, elderly are provided health care by the general health care delivery system in Tamil Nadu, which also has a vibrant Public Health care and a highly acclaimed insurance scheme. The Government Hospitals, which are geared up to deal with the maternal and child health, also address other health challenges including geriatric care.

25.2 Strengthening of Geriatric Department at Madras Medical College:

Geriatric Department has been developed at the Regional Geriatric Centre located in the College. Apart from providing referral treatment, research and manpower development, the department is involved in developing and updating training materials for various levels of health functionaries, developing IEC material, guidelines, etc., Funds have been provided for manpower, equipment, medicines, construction of building, training etc., Further, two new Geriatric units have been developed at Chengalpattu Medical College and Government Mohan Kumaramangalam Medical College, Salem by creating one Associate Professor of Geriatrics in each College. An additional unit has been developed at Madras Medical College, under the National Programme.

Development of Human Resources for Geriatric Care

25.3 A Post-Graduate training programme, M.D. Geriatrics, has been developed at Madras Medical College, first in the country, from the year 1996 onwards, with a current intake of three students every year. So far 20 qualified geriatricians have been passed out of the department.

25.4 National Institute of Ageing: Action has been taken for establishment of National Institute of Ageing at an estimated cost of Rs.126.87 crore, for which 10 acres of land has been identified at King Institute of Preventive Medicine, Guindy, Chennai with a facility for providing 200 beds. Government have issued administrative sanction for Rs.97.75 crore towards the following components:

Sl. No.	Name of the Component	Amount
1	Civil works	Rs.78.00 Crore (Rs.73.00 crore for the year 2014-2015 and Rs.78.00 crore for the year 2015-2016 by adding 7% for escalation of costs)
2	Machinery and equipment	Rs.19.50 Crore
3	Ambulance	Rs.00.25 Crore
	Total	Rs.97.75 Crore

Chapter - 26

ACCIDENT AND TRAUMA CARE CENTRES and '108' EMERGENCY CARE SERVICES

26.1 The State Government have taken concerted efforts to reduce the accidents and also to save invaluable human lives. The loss of life in an accident impacts the family and society as the family loses a breadwinner in addition to coping with the loss of life. Ambulance services are pivotal to putting in place an efficient and effective emergency service. Tamil Nadu has put in place an effective '108' Ambulance services in addition to other ambulance facilities and also ensures effective Trauma care centres.

26.2 The Government have taken steps to post exclusive casualty medical officers in the Accident and Emergency Ward and also has over 50 Accident and Emergency wards under the control of the Directorate of Medical and Rural Health Services at strategic locations in the State which are equipped to deal with the accident victims. The 20 Government Medical Colleges are also fully equipped to handle the accident victims. It is anticipated that sustained awareness on safe driving practices, addressing the hot spots by the relevant departments in a coordinated manner and ensuring that victims are reached within the Golden hour and stabilized, only the death toll in accidents

would be brought down substantially in a sustained manner. To augment the facilities further, Accident and Trauma care Centres have been established in the following institutions –

- Government Vellore Medical College Hospital, Vellore
- Government Kilpauk Medical College Hospital, Chennai
- Government Rajaji Hospital, Madurai
- Government Tirunelveli Medical College Hospital, Tirunelveli
- Government Kanniyakumari Medical College Hospital, Nagercoil
- Government Mohan Kumaramangalam Medical College Hospital, Salem
- Government District Headquarters Hospital at Karur
- Government District Headquarters Hospital at Krishnagiri
- Government District Headquarters Hospital at Kovilpatti
- Government District Headquarters Hospital at Dindigul

108 Emergency Ambulance Services

26.3 '108' Ambulance Service is successfully being operated in Tamil Nadu through a single **Toll Free number** and the services are available **24 x 7 and free** to the public. This program is implemented through a Public Private Partnership between Government of Tamil Nadu and GVK EMRI. The MOU has been extended for another five years from May 2013. Each ambulance has one fully trained Emergency Medical Technician (EMT) who provides the pre-hospital care to victim and a Pilot (driver).

26.4 Ambulance Deployment: Based on the population, accident prone areas, hilly terrain and remote areas which are difficult to reach, the '108' ambulances are located in 32 districts across the State. At present, 763 ambulances are in operation covering all the Districts by providing Basic Life Support, Advanced Life Support, Neo natal care and four wheel drive ambulances for difficult terrain and hilly areas.

District Wise Distribution of Ambulances

Districts	ALS*	BLS**	Neonatal	4WD***	Total	FR Bikes****
Ariyalur	1	10	2	1	14	
Chennai	2	32	3	2	39	41
Coimbatore	2	23	1	3	29	
Cuddalore	2	23	2	2	29	
Dharmapuri	1	15	2	1	19	
Dindigul	1	14	2	2	19	
Erode	1	17	3	5	26	
Kancheepuram	3	37	2	1	43	
Kanyakumari	1	7	1	0	9	
Karur	2	11	1	1	15	
Krishnagiri	1	13	3	4	21	
Madurai	4	19	3	0	26	
Nagapattinam	1	16	1	1	19	
Namakkal	1	14	2	4	21	
Perambalur	1	8	1	1	11	
Pudukottai	2	16	2	2	22	
Ramanathapuram	2	14	3	1	20	
Salem	3	20	2	5	30	
Sivagangai	2	13	2	0	17	
Thanjavur	1	16	1	2	20	

The Nilgiris	2	8	2	13	25	
Theni	1	10	1	4	16	
Thiruvallur	1	29	2	3	35	
Thiruvanamalai	2	23	3	4	32	
Thiruvarur	1	13	2	1	17	
Thoothukudi	2	10	2	1	15	
Tiruchirapalli	1	18	2	3	24	
Tirunelveli	3	22	2	2	29	
Tirupur	2	14	2	0	18	
Vellore	1	37	4	4	46	
Villupuram	2	32	2	4	40	
Virudhunagar	2	12	2	1	17	
Grand Total	54	566	65	78	763	41

ALS – Advance Life Support, **BLS – Basic Life Support, ***4WD – Four Wheel Drive, *FR – First Responder Bikes.**

26.5 Key statistics achieved in the year 2015 – 16: This service is being provided to the people of Tamil Nadu 24 x 7 by the Government of Tamil Nadu.

- 7.21 crore population covered
- 763 Ambulances are in operation in all the 32 districts of Tamil Nadu
- 47,70,992 calls answered by the Emergency Response Centre

- 10,40,223 Medical Emergency Cases handled
- On an average, per day, per trip, per Ambulance performance 3.58 cases

26.6 Categories of Medical Emergencies:

The categories of the emergencies handled may be seen from the following table:

Type of Emergencies	Percentage
Pregnancy Related	24.26
Road traffic Accident	20.04
Acute abdominal pain	9.27
Cardiac Related	6.23
Poisoning	5.00
Respiratory	4.30
Assault	3.81
Epilepsy	3.02
Neonatal	2.27
Suicides	0.49
Others	21.31
Total	100.00

26.7 Highlights of the performance of '108' services in 2015-16 are as follows :-

- 38,608 lives in very critical condition, were saved
- 83.72% of cases admitted at Government Hospitals

- 2.55% of cases admitted in Private Hospitals on requests from victim / attenders
- 13.73% of cases were given first aid.
- 31,935 Medical emergencies attended in tribal areas
- 21,788 Neonatal cases handled

26.8 Details of Beneficiaries under this Service:-

Parameters	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
a. Pregnant mothers	128476	139068	160160	207492	233109	232408
b. Road traffic accidents	124907	130226	147290	174248	180578	191988
c. Other Emergency	257159	231062	326914	409053	471765	533595
Total Beneficiaries (a+b+c)	510542	500356	634364	790793	885452	957991
Tribal related	6734	13411	15541	16879	26910	31935
Total neo natal cases transported	8613	11780	16964	21670	20376	21788
Critical lives saved	14308	18609	15919	65945	46742	38608
Number of vehicles	436	629	638	643	704	763
Funds sanctioned (Rupees in lakh)	4770.34	5227.92	7123.34	8840.54	10215.63	10821.14

26.9 New Initiatives

- i. **Neonatal Ambulances:** First time in the country, neonatal emergencies were brought under the purview of Public EMS. Launched in June 2011, these ambulances are exclusively 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 equipment like Transport Incubator and Syringe Pump that are required to handle emergencies. In addition specially trained Emergency Medical Technicians are posted to provide care during transit. Over 21,788 babies have been benefitted in this speciality service in 2015-16. Currently 66 ambulances are in operation in all the districts.

- ii. **Eye Donation:** The Government have approved the project leveraging the '108' Call centre to accept eye donation requests and route them to nearest eye banks. This would ensure cornea blind patients are supported by equitable and fair distribution of collected corneas.

- iii. **Four Wheel Drive:** Four Wheel Drive ambulances are proposed for Hilly/Difficult terrain areas where the normal ambulances can't travel or in bad road conditions where the ambulances take much time to reach the emergency site. 78 vehicles are in operation.
- iv. **Emergency Critical Care (ECC) Centre:** ECC Centres have been established in Tambaram and Padiyanallur to stabilize the cases in case of long distance travel in highways. The first centre was started in August, 2013 at GH, Tambaram. Second Emergency Care Centre at Padiyanallur was launched by the Hon'ble Chief Minister in June, 2014. At this Centre, the Road traffic victims are stabilized and referred to Medical College Hospital for expert management. This three bedded centre has the management facility with advance life saving equipment like ventilator, defibrillator with Multi para monitor essential life saving medicines also with 4 emergency care trained Medical Officers, emergency management trained staff nurses are appointed and they work on a shift basis. 6,274 cases have been stabilized so far at Tambaram while 3,594 cases have been stabilized at Padiyanallur. ECC Centre has also been

established at GH, Injambakkam on East Coast Road at Kancheepuram district in June, 2015. So far, around 1300 Cases have been stabilized.

- v. **First Responder Service:** Initially the project involving Bike ambulance to provide for the first responder service has been undertaken on a pilot basis in Chennai City.

Need for bike ambulances as Pilot Project:

- ❖ Reduce response time in City
- ❖ Reduce unavailed persons, which is high at 6% at City
- ❖ Gain access to areas inaccessible to ambulance
- ❖ Plug areas not having ambulance locations
- ❖ Enhance visibility for Emergency Management System
- ❖ Improve public confidence on Emergency Management System
- ❖ Deploy at mass gathering events

The primary task of the bike ambulance would be to reach the scene of the emergency quickly, provide first aid, as and when required

and be able to render medical care to those in need as early as possible.

Emergencies to be handled by the bike ambulance: The Bike ambulance is assigned for the following emergencies

- ❖ Trauma (Vehicular)
- ❖ Trauma (Non-Vehicular)
- ❖ Fainting
- ❖ Cardiac Emergencies
- ❖ Fracture
- ❖ Insect bite / Animal attack
- ❖ Unconscious
- ❖ Diabetic

Bike Ambulance and Mobile medical kit and Operations: The Bikes have been provided with a First Aid Kit which is comprehensive, portable, easy to handle at scene, stand for Portable Oxygen cylinder, blinkers, revolving lights and siren. Other accessories such as safety knee guards, helmets, gloves, mobile, GPS and headsets etc. are stocked. An integrated approach to the existing '108' Ambulance service would be adopted and the bike ambulances would be part of the existing '108' ambulance fleet cases

requiring regular ambulances would be assigned for shifting to hospitals. It is planned to extend this service to major metropolitan cities across the State. So far, 1514 number of cases are transported through this service since launch.

26.10 Source of Funding and Expenditure:

The '108' Ambulance Service is funded by the State Government. However, NHM provides 100% operational costs for Antenatal, Neonatal and Tribal cases. For other medical emergencies, NHM provides 20% of the operational cost.

26.11 Monitoring: The District Monitoring Committee headed by the District Collector reviews the performance of the '108' ambulance service at the District level while the Project Director TNHSP and the Secretary, Health and Family Welfare are reviewing the State level performance. The State level Advisory Committee headed by the Chief Secretary to Government also reviewing the performance once in 6 months. Apart from this, the programme officers and field level functionaries inspect the ambulances and provide suggestions for improvements.

26.12 Ambulances operated by Government Hospitals: The State Government also operates ambulances in order to provide emergency care for transferring

patients for higher level treatment (Inter Facility Transfer), performing diagnostic tests and opinion from specialists from Medical Colleges and Centres of Excellence. The number of ambulances available under each HOD is as follows:

Head of the Department	No. of Ambulances
Directorate of Medical Education	59
Directorate of Medical and Rural Health Services	111
Directorate of Family Welfare	102
Directorate of Public Health and Preventive Medicine	486
Directorate of Indian Medicine	3
Directorate of Drug Control	1
Total	762

26.13 'Janani Sishu Suraksha Karyakram' (JSSK) Drop Back Service: The Government of India launched JSSK scheme to be implemented nationally where all delivered mothers at Government Institution and treated sick infants will get free drop back service. To provide 100% free drop back service to

delivered mother to their home and treated sick infants, a pilot project covering all major Obstetrics and Gynaecology and Women and Children Hospital, Chennai was implemented through Indian Red Cross Society, Chennai. At present this service is under operation in nine districts. The NHM is funding this scheme in Tamil Nadu.

Free Hearse Service

26.14 Free Hearse Service is made available for all the families of the deceased in all the Government Medical Institutions in the State. Under this programme, the deceased are transported to the place of disposal or home at free of cost, irrespective of the distance within the State. The attenders of the deceased or the Chief Medical Officer of the Government hospital can contact the Central Response Centre which is functioning round the clock for the assistance, through the telephone number 155377. Currently, 151 vehicles are in operation covering 32 districts covering all Government Medical College Hospitals and Government Taluk and Non Taluk Hospitals. The Indian Red Cross Society is running the programme in partnership with the Health department. This service also renders full and free support during major accidents, natural calamities and disasters by transporting the deceased to the Government Hospitals for

autopsy and then to their destination. During 2015-16, 94,649 bodies have been transported to their destination at free of cost. The cases requiring transportation beyond 300 kilometers are transported through Railways. Government have sanctioned Rs.10 crore for this service in 2015-16. The number of vehicles in 2011 was 55 and now it is 151. It is planned to increase the fleet strength in future.

Chapter – 27

CHIEF MINISTER'S COMPREHENSIVE HEALTH INSURANCE SCHEME

27.1 Chief Minister's Comprehensive Health Insurance Scheme (CMCHIS) is one of the flagship schemes of the Government of Tamil Nadu launched with the objective of ensuring Universal Health Coverage and providing state of art treatment facilities in the Government and Private sector to the needy. The insurance Scheme is implemented through the United India Insurance Company Limited (a Public Sector Company with headquarters at Chennai). The scheme covers members of any family whose annual family income is less than Rs.72,000 and the sum assured is Rs.1 lakh per year per family along with a provision to pay upto Rs.1.5 lakh per year per family for certain specified 77 procedures. Hence upto Rs.4 lakh converge is being provided to each family in 4 years. The scheme covers 1,016 procedures which include 23 important diagnostic procedures and 113 follow up procedures. So far, 1.58 crore smart cards have been distributed in the districts. This scheme provides coverage for meeting all expenses relating to hospitalization of beneficiary as defined in the scope of the scheme.

27.2 To provide treatment under CMCHIS, 751 hospitals have been empanelled, out of which 159 are Government hospitals and 592 are private hospitals. 64 procedures indicated below are exclusively reserved for the Government Hospitals.

List of Procedures Reserved for Government Hospitals

Sl. No	Procedures Reserved for Government Hospitals
1.	Surgical Correction of Longbone Fracture
2.	Fracture Neck/ Shaft Of Femur
3.	Fracture Shaft of Other Long Bones (Humerus, Both Bones of Forarm, Both Bones of Leg)
4.	Amputation of AK / BK
5.	Amputation of AE / BE
6.	Amputation of Fore-Foot
7.	Sym's Amputation
8.	Amputation of Toes
9.	Amputation of Fingers
10.	Trans Meta-Tarsal Amputation
11.	Soft Tissue Injury
12.	Bone Grafting as Exclusive Procedure
13.	Open Reduction & Internal Fixation of Fingers & Toes
14.	Reduction of Compound Fractures & External Fixation
15.	Open Reduction of Dislocations - Deep
16.	Avascular Necrosis of Femoral Head (Core Decompression)

17.	Soft Tissue Reconstruction Procedures for Joints/Osteotomy
18.	Grade-I & II (Wound management for compound fractures)
19.	Grade-III (Wound management for compound fractures)
20.	Surgery for Patella Fracture (To Be Covered along with Other Injuries only and not as Exclusive Procedure)
21.	Small Bone Fractures-K-Wiring (To Be Covered along with Other Injuries Only and not as Exclusive Procedure)
22.	Mastoidectomy
23.	Stapedectomy - Veingraft
24.	Tympanoplasty
25.	Facial Nerve Decompression
26.	Laryngo Fissurectomy
27.	Adenoidectomy - Gromet Insertion
28.	Excision of Benign Tumour Nose
29.	Angiofibroma Nose
30.	Endoscopic DCR
31.	Endoscopic Sinus Surgery
32.	Rupture Uterus with Tubectomy
33.	Eclampsia with Complications Requiring Ventilatory Support
34.	Vaginal Hysterectomy with Pelvic Floor Repair
35.	Cystocele, Rectocele & Perineorrhaphy
36.	Vaginal Hysterectomy for BENIGN CONDITIONS
37.	Abdominal Hystrectomy for Benign Conditions
38.	Diagnostic Hystero- Laproscopy
39.	Branchial Cyst Excision
40.	Cystic Hygroma Excision-Extensive

41.	Removal of Submandibular Salivary Gland
42.	Excision of Thyroglossal Cyst Fistula
43.	Hemithyroidectomy
44.	Isthmectomy
45.	Partial Thyroidectomy
46.	Resection Enucleation
47.	Subtotal Thyroidectomy
48.	Total Thyroidectomy
49.	Simple Mastectomy(NM)
50.	Modified Radical Mastectomy
51.	Epigastric Hernia without Mesh
52.	Epigastric Hernia with Mesh
53.	Umbilical Hernia without Mesh
54.	Umbilical Hernia with Mesh
55.	Ventral and Scar Hernia without Mesh
56.	Ventral and Scar Hernia with Mesh
57.	Lap. Appendicectomy
58.	Partial/Subtotal Gastrectomy For Ulcer
59.	Resection & Anastomosis of Small Intestine
60.	Total Colectomy
61.	Colostomy
62.	Colostomy Closure
63.	Bronchoscopy Foreign Body Removal
64.	FB Cricopharynx, Esophag+C1:C66

27.3 Since implementation of the scheme totally 15.71 lakh persons were benefitted with an insurance coverage of Rs.3,251.12 crore as on 05.08.2016. Out of this, 6.32 lakh beneficiaries have been treated in Government

Hospitals at an Insurance coverage of Rs.1,158.66 crore.

Details of Speciality wise Authorization issued (11.01.2012 to 01.08.2016)

S. No	Speciality	No. of cases Approved	Approved Amount (Rs. in Lakh)
1.	Cardiothoracic Surgeries	89730	72002.52
2.	Genitourinary Surgery	96103	21622.35
3.	Replacement	32490	22048.66
4.	General Surgery	84760	18665.68
5.	Nephrology	248020	21089.13
6.	Neurosurgery	42175	16311.22
7.	Ear, Nose and Throat	108605	13199.87
8.	Gynecology and Obstetrics Surgery	73117	13738.08
9.	Medical Oncology	218853	13063.11
10.	Neonatology	75169	13792.54
11.	Radiation Oncology	63343	14209.83
12.	Orthopedic Trauma	57761	11527.13
13.	Ophthalmology Surgeries	67984	8510.28
14.	Cardiology	36159	9724.10
15.	Surgical Oncology	28372	7399.91
16.	Plastic Surgery	28463	6977.67
17.	General Medicine	34043	7343.65
18.	Neurology	32723	6204.56
19.	Vascular Surgeries	18019	5313.72

20.	Paediatric Intensive Care	26760	4014.63
21.	Hepatology	43370	3593.29
22.	Surgical Gastro Enterology	7742	3020.69
23.	Paediatric Surgeries	7308	2138.62
24.	Interventional Radiology	4966	2523.64
25.	Gastroenterology	8843	1696.19
26.	Pulmonology	7125	1273.41
27.	Poly Trauma	4759	932.29
28.	Paediatrics	5719	694.97
29.	Dermatology	1832	273.38
30.	Rheumatology	3030	328.04
31.	Transplantation	300	429.40
32.	Chest Surgery	223	86.72
33.	Endocrinology	539	122.94
34.	Follow Up Procedures	7299	125.02
35.	Diagnostics	325069	6345.03
	Total	18,90,773	3,30,342.27

27.4 To help the needy and poor people, who have to undergo costly surgeries such as Liver Transplantation, Renal Transplantation including post transplantation procedure for Immunosuppressant Therapy, Bone Marrow Transplantation, Cochlear Implantation and Stem Cell Transplantation costing more than Rs.1.50 lakh, a Corpus fund initially with a State Government contribution of Rs.10 crore has been created. The Government have

further sanctioned additional funds of Rs.25 crore to the corpus fund. For strengthening the Corpus fund now 27% of claims under CMCHIS in Government Hospitals are remitted to Corpus Fund by the Insurance Company. The patient who needs to undergo the specialized surgery need not pay any amount from his / her personal sources. The entire cost of specialized surgery is borne by the insurance Company upto Rs.1.50 lakh and the remaining amount is met from the Corpus Fund. All such cases are cleared by an Expert Committee. As on 05.06.2016, 3,452 persons have been benefitted for these high end surgeries as per the following details:

Sl. No	Nature of Surgical procedure	Number of beneficiaries approved
1.	Liver Transplantation	132
2.	Renal Transplantation	1,057
3.	Cochlear Implantation	2,066
4.	Bone Marrow Transplantation	186
5.	Stem Cell Transplantation	11
Total		3,452

Special Medical Camps

27.5 Under CMCHIS, camps have been conducted by both Government and Private empanelled hospitals every month. From January, 2012 to May, 2016 - 26,414 individual and 984 mega camps were conducted and about 32,26,073 persons were screened and 2,61,310 persons were referred for further treatment. In addition 680 camps were planned and the programme exceeded the target and 1021 special camps were conducted from 22.02.2015 to 29.02.2016. 2,73,113 people were screened in the camps and about 25,543 were referred for further treatment. Moreover in the medical camps conducted under CMCHIS and in empanelled hospital, NCD screening is also done for men and women for hypertension, diabetes and in addition cervical and breast for women. So far 8,26,198 persons were screened for further treatment.

Awards and Improvements

27.6 Further, it is the pride and privilege of CMCHIS that it has been awarded Best Practices award with certificate and cash award of Rs.2 lakh for 2014 for the improvement of quality delivery system ensuring good governance for implementation by the Hon'ble Chief Minister. Apart from this certain cost control measures were effected like cost of drug eluting stent from Rs.80,000/- reducing to

Rs.18,500 for CMCHIS patients through negotiation with all major suppliers.

Tamil Nadu State Illness Assistance Society

27.7 In addition to the Insurance scheme, "Tamil Nadu State Illness Assistance Society" is also ongoing which is administered by the Executive Committee under the Chairmanship of the Secretary to Government, Health and Family Welfare Department and the Director of Medical and Rural Health Services as the Member-Secretary. Under this scheme, financial assistance is sanctioned ranging from Rs.5,000 to Rs.25,000 according to the nature of surgery to Below Poverty Line people. The Government have now delegated the powers of grant of financial assistance to the respective District Collectors in a speedy manner to the eligible patients under this Scheme.

Chapter - 28

IMPORTANT ACTS

28.1 The effectiveness of public health service to the community depends on the way the public health laws prevailing in the society. Health related law includes many Acts viz. **Medical Termination of Pregnancy Act, 1971, Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994, Indian Medical Council Act, 1956, Indian Dentists Act, 1948, Indian Nursing Council Act, 1947, Indian Pharmacy Act, 1948, Prevention of Food Adulteration Act, 1954 now modified as Food Safety and Standard Act, 2006 and Rules, 2011, Tamil Nadu Public Health Act, 1939 etc.**, Public Health is what we, as a society, do collectively to assure the conditions for people to be healthy.

Tamil Nadu Public Health Act, 1939

28.2 Tamil Nadu is the first State in the country to enact a law for public health. Tamil Nadu Public Health Act, 1939 remains as a model till today for the entire country. It has since been amended in 1941, 1944 and 1958 and the Act was modified in 1970. The Act was translated in Tamil in the year 1986. Tamil Nadu to its credit also had the first Act in the country for Food Adulteration also had the

Tamil Nadu Prevention of Food Adulteration Act, 1918, till the Act was repealed by the Central Act, 1954. It has since been enacted as the Food Safety and Standards Act, 2006 and Rules, 2011 and has replaced the Prevention of Food Adulteration Act, 1954. The Main Focus of the Public Health Act, 1939 is on Environmental Health, Communicable Disease Control, Food Hygiene and Maternity & Child Health measures. With the newer challenges such as Emerging and re-emerging diseases, increasing industries in food production, emerging social issues like Gender issues, adolescents, geriatric issues, increasing environmental hazards – Ozone layer depletion, weaning greenery, radiation, bio-degradation, environmental pollution due to change in life style, the Public Health Act also needs a relook and the Government is taking action to amend the Act.

Civil Registration System

28.3 Prior to the introduction of Registration of Births and Deaths Act, 1969 by the Government of India, registration of births and deaths in Tamil Nadu was carried out under the provisions of Madras Panchayats Act, 1899 in rural areas, the Madras Districts Municipalities Act, 1920 in the Municipalities and selected Town Panchayats and the Madras City Municipal Act, 1919 in Chennai Corporation. There are 16,215 Registration Units in 32

Revenue Districts including Chennai Urban District. The Registration of Births and Deaths was made compulsory at the place of occurrence. With the implementation of Tamil Nadu Registration of Birth and Death Rules, 2000 with effect from 1.1.2000 in accordance with the provisions of section 30 of the Registration of Births and Deaths Act, 1969. The registration of Birth and Death should be done within 21 days of its occurrence. Tamil Nadu has achieved 100% in birth registration and 98.8% in death registration during 2014. Since the implementation of Birth and Death Registration at Primary Health Centre level from August, 2009, 15.61 lakh Free Birth Certificates have been issued up to March, 2016 to the beneficiaries in the State.

Medical Certification of Cause of Deaths

28.4 The Medical Certification of Cause of Deaths (MCCD) scheme is a part of Civil Registration System and is the only source which provides cause specific mortality data. The scheme was introduced in seven selected Municipalities and Chennai Corporation during 1969 and later it was extended to all Municipalities and Corporations from 1980. To improve Medical Certification of Cause of Death, regular trainings are given to doctors every year.

Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994

28.5 In order to prevent Sex determination, the Government of India has enacted the Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994. To eradicate female foeticide for maintaining the high level juvenile sex ratio (0-6 years) and maintaining the male and female ratio.

Cigarettes and Other Tobacco Products Act (COTPA), 2003

28.6 In order to discourage tobacco use and protect the youth and masses from the harmful effects of tobacco usage and Second Hand Smoke (SHS), Government of India enacted "Cigarettes and other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, (COTPA) in 2003". The Act imposes progressive restriction on all tobacco products to reduce their demand and supply. The law is applicable to all tobacco products and extends to whole of India. The specific provisions of the COTPA include:

- i. **Section 4:** Prohibition of smoking in public places

- ii. **Section 5:** Prohibition of direct and indirect advertisement, promotion and sponsorship of cigarette and other tobacco products.
- iii. **Section 6(a):** Prohibition of sale of cigarette and other tobacco products to a person below the age of eighteen years.
- iv. **Section 6(b):** Prohibition of sale of tobacco products within a radius of 100 yards of educational institutions.
- v. **Section 7:** Mandatory depiction of Statutory warnings (including pictorial warnings on tobacco packs).
- vi. **Section 7(5):** Display of tar and nicotine contents on tobacco packs.

Transplantation of Human Organ Act, 1994

28.7 To provide the regulation of removal, storage and transplantation of human organs for the therapeutic purpose and for prevention of commercial trade of human organs, the Transplantation of Human Organ Act, 1994 was enacted by the Government of India. In Tamil Nadu, transplantation of Human Organ is being done only in the hospitals registered under this Act. As per the Act, the Director of Medical and Rural Health Services is the State Appropriate

Authority. The Hospitals which are applying for Registration under this Act, will be inspected by the team of specialists from the nearby Government Medical College Hospitals. Based on the inspection report furnished by the above specialists, the State Appropriate Authority will issue the Registration Certificate. The Hospital Registered under this Act, alone can conduct Human Organ Transplantation. In Tamil Nadu, 70 hospitals are registered under this Act, for performing cadaver renal, heart, liver, lungs and heart valves transplantations. Transplant performing hospitals in the State have been divided into three zones as follows and organ donations from cadaver arising in a zone are allocated first within that zone:-

North Zone - Chennai and neighbouring districts, Vellore

South Zone - Tiruchirappalli, Madurai, Tirunelveli, Nagercoil

West Zone - Coimbatore, Erode, Salem

Deceased Organ Transplant Programme

28.8 The Deceased Organ Transplant Programme has been established in the State of Tamil Nadu on 16-9-2008. As per current census report, Tamil Nadu has done almost 1.9 donors per million. Though this scheme is under implementation in many States, the

performance under the programme in comparison with other States, the State of Tamil Nadu is Ten times higher than the average rate of other States. The Government of Tamil Nadu has formed a TRANSTAN Society, under the Chairmanship of the **Hon'ble Chief Minister**, which enables extension of more effective implementation of the scheme. The Society was registered in 2015 to give it necessary functional and operational independence on the lines of the TNMSC and TNSACS.

Programme performance

28.9 Since the establishment of the above programme, 837 donors donated the organs. The Deceased Organ Transplant Programme has received National accolades and **it was adjudged the best performing State in Cadaveric transplantation in the country.** So far, 2,690 major organs have been harvested from 837 donors and used for patients. The performance details under this programme are given in the table below:

	2015-16	October, 2008 to 06.08.2016
Donors	156	837
Heart	78	236

Lung	42	125
Liver	154	787
Kidney	298	1529
Pancreas	3	11
Small Bowel	0	2
Total Major Organs	575	2690
Skin	22	42
Corneas	251	1265
Heart Valves	58	678
Blood Vessels	1	2
Total organs	907	4677

The success of this program is due to the close involvement of all stakeholders in structuring this program, the trust it generates due to its transparent functioning and the support it receives from Non-Governmental Organizations (NGOs).

Chapter – 29

RESEARCH AND TRAINING

Multi-Disciplinary Research Unit

29.1 To promote health research activities Government of India have created a new Department (Department of Health Research) under the Ministry of Health and Family Welfare and has launched the following three schemes:

- Establishment of Multi-Disciplinary Research Units
- Establishment of Network Laboratories for managing epidemics and Natural Calamities
- Establishment of Model Rural Health Research Units

29.2 Multi-Disciplinary Research Units (MDRUs): This scheme has been approved to establish Multidisciplinary Research Units (MRUs) in State Government run Medical Colleges during 12th plan with a view to create a dedicated infrastructure for research in Government Medical Colleges with special focus on Non-Communicable Diseases (NCDs).

29.3 Objective of the MDRUs are:

- Encourage and strengthen an environment of research in medical colleges.
- Bridge the gap in the infrastructure which inhibits health research in the Medical

Colleges by assisting them to establish multidisciplinary research facilities with a view to improve the health research and health services.

- To ensure the geographical spread of health research infrastructure, in order to cover un-served and under-served Medical Colleges and other institutions.
- To improve the overall health status of the population by creating evidence-based application of diagnostic procedures / processes / methods.

29.4 Present Status of Implementation:

Against the total sanction of 41 colleges in India, five MRUs have been sanctioned for Madras Medical College, Tirunelveli Medical College, Coimbatore Medical College, Dr.ALM Post Graduate Institute of Basic Medical Sciences, Taramani and Chengalpattu Medical College.

29.5 Establishment of Network of Research Laboratories for Managing Epidemics and Natural Calamities - Viral Disease Research Laboratory (VDRL):

The scheme entails establishment of Labs in the State Government Medical Colleges for timely diagnosis and management of viral epidemics and new viral infection. For establishing a Medical College Level Lab about Rs.1.44 crore for equipment and civil

works/renovation of building is provided under the scheme. In addition, recurring expenditure of Rs.30 lakh per annum, comprising expenses on staffing, consumables and contingencies and training is also provided. These are being established at Madurai Medical College and Government Medical College, Theni.

29.6 Molecular Virology Lab: With a view to provide diagnostic facilities for viral diseases within the district level itself already using State funds, the Government have issued orders for establishing Molecular Virology Lab in the Madras Medical college and Government Medical colleges of Madurai, Coimbatore and Tirunelveli at a cost of Rs.125 lakh each.

Public Health

29.7 Directorate of Public Health and Preventive Medicine has made many research initiatives in improving Health care delivery system. Tamil Nadu State pioneered many research activities including administration of iron sucrose, introduction of vaccine for Japanese encephalitis and pentavalent vaccine etc., these pioneering activities were subsequently adopted as National policy and implemented throughout the Country. As the continuation of research and development activities, Tami Nadu is currently undertaking many innovative initiatives through State, National and International Collaborations. An

innovative project with the funding support of the State Planning Commission under Tamil Nadu Innovation and Initiatives Schemes, developing Real time Communicable Disease Surveillance for 12 Corporations at a total cost of Rs.2.98 crore.

29.8 Centre for Disease Control (CDC) - India funding projects:

- i. Tiruvallur District has been taken as model district in collaboration with National Institute of Epidemiology (NIE) with funding support from CDC, India.
- ii. Anti-Microbial Resistance (AMR) Programme through Global Health Security Agenda (GHSa) in two Districts *viz.*, Kancheepuram and Tirunelveli with funding support from CDC, India.
- iii. Acute Febrile Illness Pilot Project in Krishnagiri and The Nilgiris District with funding support from CDC, India
- iv. Global Food Borne Network proposal in two districts *viz.*, Kancheepuram and Cuddalore through funding from National Communicable Disease Control (NCDC). It is planned for expansion in 10 districts during the current year.

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