



**HEALTH AND FAMILY
WELFARE DEPARTMENT**

**POLICY NOTE
2017-18**

Demand No.19

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Government of Tamil Nadu
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Chapter - 1

INTRODUCTION

மருந்தென வேண்டாவாம் யாக்கைக்கு அருந்தியது
அற்றது போற்றி உணின் (குறள் 942)

“No Medicine is necessary for him who eats after assuring (himself) that what he has (already) eaten has been digested.”

1.1 Tamil Nadu has emerged as a model State in India in not only providing “State of Art” health care services but also making available excellent human resources and infrastructure. It has been a fore-runner in implementing Maternal, Child Care and Family Welfare Service and has also pioneered programmes and activities for disease control. Like the entire nation our State’s health care challenges are diverse and the endeavour of the department of Health and family Welfare is to provide equitable, affordable and quality healthcare services to the people.

1.2 Because of sustained efforts in strengthening the health systems, our State has always been one of the leading States in achieving goals and targets in health indicators. While it has already achieved the Millennium Development Goals set by the United Nation and achieved the National targets far ahead of most other States, it is also poised to achieve the Sustainable Development Goals which have to be attained before 2030. That is precisely the reason why under 'Vision 2023' released by late Hon'ble Chief Minister, achieving the health indicators by 2023, attained by Developed Countries has been adopted on the Vision.

State Profile

1.3 Tamil Nadu is one of the best performing States and has consistently strived for ensuring that the citizens are provided with the best possible medical care. It is the seventh most populous State in the country with a population

of 7.21 crore as per 2011 census. The State has 32 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 is also one of the best performing States in terms of implementing Reproductive and Child Health schemes and has already achieved the National Rural Health Mission / Reproductive Child Health goals. The current Infant Mortality Rate of the State is 19 (Sample Registration System 2015), which is well below the national target of 27 per 1000 live births. Against the national target (MDG 2015) of 109 per lakh live births for the Maternal Mortality Ratio, the State had already achieved the Maternal Mortality Ratio of 79 as per Sample Registration System 2011-13. Now, as per the State Health Management Information System data collected in 2015-16, this has gone down further to 62 per lakh live births. The State has also achieved replacement

level and the current Total Fertility Rate is 1.6 which is the lowest in the country. The Union Planning Commission and many independent review missions have commended the performance of the State.

Current Scenario

1.4. The current scenario in the Government Medical and Health Facilities in Tamil Nadu is given below:

Government Medical and Health Facilities in Tamil Nadu

Sl. No.	Description	Units
1	Government Medical Colleges	22
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	274
7	Primary Health Centres (PHCs)	1,747
8	Health Sub Centres (HSCs)	8,706
9	Urban Primary Health Centres (UPHCs) including Chennai Corporation	476
10	New Community Health Centres (CHCs) being established under NHM in Chennai Corporation	15
11	Employees' State Insurance (ESI) Hospitals	10
12	ESI Dispensaries	216
13	Indian System of Medicine Hospitals and Dispensaries	1,491

1.5 With the network of primary, secondary and tertiary hospitals and a plethora of cross cutting programmes such as the National Health Mission, Tamil Nadu Health Systems Project, 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 over five lakh out-patients and over 60,000 in-patients per day. The above facilities serve as the base through which cross cutting programme such as National Health Mission, innovative scheme pioneered by our State under State fund and services under Indian Medicine and all other programmes are implemented.

1.6 The State also has been implementing several landmark initiatives with a view to ensure Universal Health Care. Starting of Tamil Nadu Medical Services Corporation in 1994, initiating maternal and child health initiatives like 24 hour services at PHC, starting of one 30 bedded PHC in each block, providing adequate blood banks, creating facilities for

night caesarean, opening neo natal stabilisation and intensive care units and upgrading capacity for comprehensive obstetric and neonatal care, starting birth companion programme, maternal death audits, universal immunisation programme, achieving all targets in the national programmes are some among many such landmark initiatives being implemented by the State. In addition to consolidating the initiatives and the programmes which are already being successfully implemented, the State has also launched the menstrual hygiene programme, the modified Chief Minister's Comprehensive Insurance Scheme and is also implementing Dr.Muthulakshmi Reddy Maternity Benefit Scheme with an increased financial assistance. The State has in the last few years also introduced pioneering new schemes such as Amma Baby Care Kit, Amma Magaperu Sanjeevi, Amma Arogya Thittam, Amma whole body check up, Breast Milk Banks, etc., which have been

well received and have given a fillip to preventive and promotive health efforts. Currently the focus of the State is to provide equal attention to public health and prevention of diseases. The State is also ensuring these quality facilities for treatment and easily accessible to the people. In addition to the emerging challenges of Non Communicable Diseases on one side, the State has also been responding fully to the challenge of controlling and preventing vector borne diseases such as Dengue and disease like Swine Flu.

1.7 These efforts have been described in detail in the rest of the Chapters in the Policy Note while a summary of select few achievements have been narrated below:

Achievements in the Health Sector

- The **Maternal Mortality Ratio (MMR)** which was 90 as per the Sample

Registration System (SRS data) in 2010-12, is reduced to **79 per one lakh live births as per latest SRS data 2011-13. Now as per the State data, it has reduced to 62 as per 2015-16 State Health Management Information System Data.** The current MMR of India is 167

- **Infant Mortality Rate (IMR)** which was 24 in 2010 has **reduced to 19 per 1000 live births as per SRS data 2015** against the National IMR of 37. This Government has received a sum of Rs.489.40 crore during the last three years from 2012-13 to 2014-15 as incentive from the Government of India for the reduction in IMR
- In order to achieve the objectives of Universal Health Care to the people of Tamil Nadu, **Chief Minister's**

Comprehensive Health Insurance Scheme has been introduced for providing treatment for 1,016 procedures, 23 important diagnostic procedures and 113 follow up procedures providing an insurance cover of Rs.1 lakh per year and Rs.1.5 lakh for certain procedures. Smart cards have been issued to 1.58 crore families. 751 hospitals including all the Government Medical College Hospitals and the District Headquarters Hospitals are empanelled to provide treatment. During the five years period of implementation upto 10th January, 2017, 17.30 lakh persons benefitted under the scheme with the approved amount being Rs.3,398.66 crore. Out of this, 6.93 lakh beneficiaries treated in Government Hospitals at an insurance coverage of Rs.1,161.61 crore

- After successful implementation for five years, the scheme came to an end on 10.01.2017 and the **Chief Minister's Comprehensive Health Insurance Scheme with new features, has been under implementation from 11.01.2017. Under the said scheme, the sum insured for the specialised procedures is enhanced from Rs.1.5 lakh to Rs.2 lakh per annum. 312 new procedures have been added in the scheme and the 154 follow-up procedures, 38 stand alone procedures and eight high end procedures added. Migrants including construction workers who reside in the State for more than six months will be included and orphans as defined by the State Government will be given Insurance Card. Under this scheme, from 11.01.2017 upto**

31.03.2017, 57,393 persons have got insurance coverage for Rs.101.56 crore.

- **A Corpus Fund** has been created with the Government contribution of Rs.35 crore and contribution from insurance receipts in Government Hospitals to meet the expenditure towards five specialized high end surgeries requiring amounts higher than Rs.1.50 lakh and so far, **4,695 beneficiaries** have undergone surgeries **at a cost of Rs.332.95 crore.**
- Under the **Dr. Muthulakshmi Reddy Maternity Benefit Scheme**, financial assistance to pregnant women **was enhanced to Rs.12,000 from June, 2011.** Through this scheme so far, **39.57 lakh of pregnant women have benefitted to the tune of Rs.3,696.70 crore.** **Hon'ble Chief Minister has ordered for increasing**

this assistance from Rs.12,000 to Rs.18,000 and necessary Government order has been issued.

- Priceless Sanitary Napkins are distributed annually **to around 32.79 lakh Adolescent Girls, 729 Women Prison inmates and 525 inpatients** in the Government Mental Hospital under the **Menstrual Hygiene Programme**. An amount of Rs.330.38 crore has been spent for this programme during the last six years.
- The **Hospital on Wheels Programme** is being implemented from 2011-12 onwards in all the 385 Blocks with modern Medical and Lab Investigation facilities. At present 416 teams are functioning. Every month 40 camps are conducted in each block. **Over 7.05 crore persons have availed**

benefits from 10.96 lakh camps conducted so far.

- The Department of **Food Safety and Drug Control Administration has been created** to implement Food Safety and Drug related legislations. Six Food Analysis Laboratories have been set up in Guindy, Thanjavur, Madurai, Salem, Palayamkottai and Coimbatore to analyse food samples.
- 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 20,852 personnel in the category of Assistant Surgeons, Physiotherapists, ECG technicians, Pharmacists, Nurses etc., have been recruited.
- In the past six years, 212 new PHCs have been established at a cost of Rs.175 crore

and 129 PHCs have been upgraded with 30 beds and Ultra Sonogram, Operation facility, etc., have been provided at a cost of Rs.145.98 crore. Maternity and Child Health centres have been established in 42 PHCs at a cost of Rs.19.45 crore. Under National Urban Health Mission (NUHM) 40 new urban PHCs in Chennai Corporation and 37 new urban PHCs in the other Corporations and Municipalities have been established.

- Adyar Cancer Institute has been designated as State Level Apex Centre for treating of cancer patients and is being upgraded as Centre of Excellence at a cost of Rs.120 crore. Four Regional Cancer Centres are being established at Madurai, Thanjavur, Coimbatore and Tirunelveli at a cost of Rs.60 crore.

- The Government Dental College Hospital, Chennai has been upgraded as Centre of Excellence at a cost of Rs.10 crore by creating sufficient posts and the building has been inaugurated on 07.09.2015.
- **1000 additional M.B.B.S. Seats** – Four new Government Medical Colleges with an annual intake of 100 students each were started in Sivagangai, Tiruvannamalai, at the “B” Block of Omandurar Government Estate, Chennai and ESIC Hospital, Coimbatore. The Medical College at Pudukkottai will start functioning from this academic year with an intake of 150 students. Apart from this, permission from Medical Council of India has been obtained for increase of 410 additional MBBS seats in seven Government Medical Colleges, i.e. from 50 seats to 100 in Chengalpattu Medical College,

Chengalpattu, from 100 seats to 150 seats in Kilpauk Medical College, from 165 seats to 250 seats in Madras Medical College, Chennai, from 150 seats to 250 seats in Stanley Medical College, Chennai, from 100 seats to 150 seats in Thoothukudi Medical College, from 100 seats to 150 seats in KAP Viswanatham Medical College, Tiruchirapalli and from 75 seats to 100 seats in Government Mohan Kumaramangalam Medical College, Salem. Seats in IRT Perundurai Medical College has been increased from 60 to 100 from this Academic Year.

- **Increase of Post Graduate seats:** During the last six years 131 Post Graduate seats were increased in the Government Medical Colleges. An unprecedented 320 new PG seats (305 Broad Speciality + 15 Super

Speciality) got additionally approved in the Government Medical Colleges this year.

- Super Speciality facility is being created at Government Rajaji Hospital at Madurai at a cost of Rs.150 crore and establishment of similar Super Speciality facility with Trauma care Centres in Government Medical College Hospital, Thanjavur and Tirunelveli at a cost of Rs.150 crore each under 'Pradhan Mantri Swasthya Suraksha Yojana' (PMSSY) has been approved and construction work has started.
- **"104" Health Helpline cum Telemedicine Service** has been introduced on 30.12.2013 for providing free access to health information, health guidance and grievance redressal. So far 22.5 lakh calls have been received from the public and health information provided.

- **108 Ambulance Service:**
840 ambulances are in operation under the 108 Emergency Ambulance Service and since 2011-12, 42.79 lakh people have availed the services including 11 lakh pregnant mothers and 1.01 lakh neonates. First time in the Government sector in India, Neonatal Emergency Ambulance services has been introduced to reduce neonatal mortality. 78 Four Wheel Drive Ambulances are in operation in difficult terrains. First Responder Bike Ambulance Service has been introduced in Chennai Corporation with 38 two wheelers on 08.02.2016. Bike Ambulance Service has been extended to 16 more districts.
- **Amma Baby Care Kit,** containing 16 materials for about 6.7 lakh children born annually in the Government Hospitals has been provided to mothers at a cost of

Rs.67 crore and the scheme has been inaugurated by Hon'ble Chief Minister on 07.09.2015. Upto March, 2017, 8.83 lakh delivered mothers have been issued Amma Baby Care Kit.

- **Breast Milk Banks:** Breast Milk Banks have been started in eight Government Medical College Hospitals and Government District Headquarters Hospital, Dindigul. 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.
- The manufacture, storage, distribution and sale of chewing tobacco, gutkha and pan masala containing tobacco or nicotine in any form or as ingredients has been banned in Tamil Nadu.

- Hon'ble Chief Minister has inaugurated the State of Art Out Patient Block constructed and donated by the Japan International Co-operative Agency at a cost of Rs.91 crore and also the Paediatric Cath Lab at a cost of Rs.16.11 crore at the Institute of Child Health and Hospital for Children, Egmore on 04.03.2017.

1.8 Some of the best practices which have been recognised nationally are as follows:

- Cadaveric Organ Transplantation:** State has been always cited as a model for other States due to the systems put in place under this programme. For the past two years the State has bagged the 'Best State Award' nationally under this category.
- Public Health Cadre-** The State for a very long time has separate Public Health

Cadre with a separate directorate, budget and legal support. This has helped in improving preventive and promotive activities in the State in addition to the management of primary care services.

- iii. **Tamil Nadu Medical Services Corporation (TNMSC)** is the 'State of Art' nodal agency in the State for the procurement of drugs, equipment and supplies for all public health facilities. Each medical facility is awarded an annual budget with a passbook for taking delivery of drugs from the district drug warehouse. This has ensured availability of essential drugs. During the visit Common Review Mission (CRM) team observed that there is no out of pocket expenditure on drugs and diagnostics. Similar to the TNMSC, Tamil Nadu Medicinal Plants and Herbal Medicine Corporation Limited (TAMPCOL)

acts as drug procurement and supply agency for AYUSH medicines.

iv. **Congenital Foetal Abnormality**

Detection: To monitor congenital abnormality in foetus, Medical Officers use advance USG machines across CHCs. This is done in a Public Private Partnership (PPP) mode where training, supervision and hand-holding are outsourced to a reputed third party.

v. **Maternal Severe Anaemia**

Management: Tamil Nadu is the first State to start administration of Iron Sucrose for management of severe anaemia in pregnant women. Injectable Iron Sucrose is available across all facilities up to PHC level and staff is well trained in severe/ moderate anaemia management.

- vi. **Birth Companion Programme:** To improve psychological support to the pregnant women during labour, the State has introduced a new Programme since 2004, to allow one family member as birth companion in the labour room. This has had positive impact on increasing institutional deliveries in public facilities.
- vii. **Maternity Picnic & Bangle Ceremony:** PHC staff with Auxiliary Nurse Midwives (ANMs) conduct maternity picnic and bangle ceremony for all pregnant women. This helps in reducing gap between service providers and the community and builds more trust and confidence in availing services from public institutions.
- viii. **Well Functional and Co-located AYUSH services** are provided across most facilities in the State. The utilization of Siddha, Naturopathy and Yoga services are well appreciable in the State.

- ix. **Mortuary Van Services:** Tamil Nadu Health System Project has provided Mortuary Vans in all District Hospitals for sending the deceased back home, free of cost. Information, Education and Communication (IEC) activities are carried out to create awareness about this service. Very good utilization of the Mortuary Vans was observed by the Common Review Mission (CRM) team.
- x. **State Health Data Resource Centre:** In line with Health Information Exchange, the State is developing Health Data Resource Centre for development of data warehouse for integrated data analysis. This will help in integration of various system and availability of analysed data products.
- xi. **Immediate issuance of birth certificate after delivery:** In all PHCs birth certificates are issued immediately

after delivery and the birth records are forwarded to the Birth and Death registration office. This helps to improve registration of birth in the State.

xii. **Modified School Health Programme:**

The State has modified the School Health Programme and made provision for a dedicated mobile health team including Medical Officer for the School Health Programme. Under the School Health Programme, children in all schools are screened for diseases, nutritional deficiencies and for refractive errors. Cases which require treatment are referred to the nearest health centre and rest of the children receive treatment during screening in schools. Free spectacles are provided to the children identified with refractive errors.

- xiii. **Awards for District Collectors:** Based on the performance under National Health Mission (NHM), every year three District Collectors are given awards.

- xiv. **Palliative Care treatment:** The State has started special initiatives for home based palliative care services as pilot project in five districts in Public Private Partnership (PPP) mode.

- xv. **Maternal Death Review:** The maternal death review at the facility level and community level is very effective in tracking and ascertaining the causes of maternal death. The Maternal Death Audit is conducted through Video Conference on every fourth Thursday by a team of medical experts at State level. Community level audit is conducted by the District Collectors.

Budget

1.9 The Government is increasing the Budget to the Health Sector every year substantially. Rs.10,157.86 crore have been provided in the budget for 2017-18. The Directorate wise allocation for 2017-18 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	9.68
2	Directorate of Medical and Rural Health Services	1080.45
3	Directorate of Medical Education	2618.14
4	Directorate of Public Health and Preventive Medicine	3060.81
5	Directorate of Family Welfare	183.02
6	Tamil Nadu Food Safety and Drugs Administration	72.99
7	Directorate of Indian Medicine and Homoeopathy	254.29

8	Tamil Nadu State Health Transport Department	31.71
9	Reproductive and Child Health Project	1276.49
10	Tamil Nadu Health Systems Project	1570.28
	Total	10157.86

NOTE:

- i. Apart from the above provision, Rs.387.38 crore has been allocated towards Civil Works being undertaken by Public Works Department under Demand No.39.
- ii. Provision towards ESI Scheme Hospitals for Rs.362.79 crore has been made in the Labour and Employment Demand No.32.

1.10 As stated earlier, the introductory chapter has tried to capture a snapshot of the activities of the department which have been elaborated in detail in other chapters.

Chapter - 2

HISTORY

2.1 Tamil Nadu has a rich tradition and history in health sector like all sectors.

While our ancient Indian System of Medicine "Siddha" and "Ayurveda" are known to have been in practice for over thousands of years, the roots of modern medicine have been 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. In respect of Medical Colleges, the Madras Medical College which was inaugurated on 3rd February, 1835 has the distinction of being the second oldest college in India, next only to the Calcutta

Medical College, which was started on 28th January, 1835. Likewise, 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 and this has now been developed into a "Centre of Excellence".

2.2 As the civilian health needs grew, 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. 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 State also has the distinction of being the pioneer in establishing systems in Public Health and Preventive Medicine. The Directorate of Public Health and Preventive Medicine was formed as early as 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. 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. Another important milestone was establishment of a separate Drug Control Department in 1981.

2.4 To streamline the drugs and equipment supply, the Tamil Nadu Medical Services Corporation was started in 1994 as a Corporation. This 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. To implement the National Rural Health Mission, in the year 2005, the State Health Society was registered along with district societies 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. To give a fillip to the Transplantation, **TRANSTAN** under the Chairmanship of Hon'ble Chief Minister was set up in 2016 to coordinate the efforts of organ transplantations both in the Government and the Private sector. The department thus has a rich history of traditional Directorates which continue to expand and function with vibrance, effective societies for focussed activities, apart from effective and experienced Human resources to carry forward the rich tradition of the department.

Chapter - 3

HEALTH ADMINISTRATION

3.1 The following Directorates and Board function under the administrative control of the Health and Family Welfare Department:

- 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 Health Department also provides staff for the Directorate of Medical and Rural Health Services (ESI) under the Labour and Employment Department.

Other Programmes and Initiatives

3.2 A number of initiatives across the Directorates under the control of this department, 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 2015-16,

the State has embarked on a new project for strengthening the Urban Health Care with the assistance of Japan International Co-operation Agency (JICA). These missions, programmes and projects 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 and Midwives Council
- iv. Tamil Nadu Pharmacy Council
- v. Tamil Nadu Siddha Medical Council (Siddha and Traditional practitioners)

vi. Board of Indian Medicine (Ayurveda, Unani and Yoga and 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 The State has a variety of categories of hospitals for the provision of preventive and curative care to all, through various hospitals, dispensaries and institutions. A broad 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 1,747 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 This Medical University was established in the year, 1987 by enacting 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. In addition to making an impact on the progress of Health Care, this University is relentlessly working to fulfill a number of objectives including improving the standards in medical, para-medical education and medical research.

Chapter - 4

MEDICAL EDUCATION

4.1 The State needs well qualified manpower not only for manning the medical facilities at all levels, but also to address the health related challenges. The Directorate of Medical Education plays a vital role in creating that qualified manpower. 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. The department also has a role to play in the establishment and maintenance of well-equipped teaching institutions, which are the premier referral centres with 'State of Art' equipment, technology and research. 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 administrator 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
- Director and Superintendent, Institute of Social Obstetrics and Government Kasturba Gandhi Hospital for Women and Children, Chennai

- 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 Thiruvotteeswarar 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

4.3 The total bed strength in the Government Medical College Hospitals and allied Institutions is 34,637 and an average of 82,671 out-patients attends these hospitals per day and 28,785 persons are treated as in-patients 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.	2,900
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	5
B.Pharm and B.Pharm (Lateral Entry)	120
Bachelor of Audio and Speech Language Pathology	25
Bachelor of Optometry	20
Diploma in Nursing	2,000
Diploma in Pharmacy	240
Para Medical courses (23 courses)	7,111

(*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)	25	1,097
P.G. Diploma (Medical)	15	396
M.D.S. (Dental)	8	42
Higher specialities	17	204
M.Pharmacy	4	58
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	15	1207
Dental College	18	1045
Pharmacy College (B.Pharm.)	34	1401
Physiotherapy College (BPT)	21	652
Nursing College (B.Sc.)	151	5379
Occupational Therapy College (BOT)	2	66
D.Pharm to B.Pharm	30	184
Post Basic B.Sc. (Nursing)	48	1027

(*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 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 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 taken 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. To protect the interests of our State, Government of Tamil Nadu is urging the Government of India to take legislative

measures to protect the existing fair and transparent policy of admissions to Medical and Dental Colleges at the Under Graduate and Post Graduate levels. Further, the Tamil Nadu Legislative Assembly has recently unanimously approved and passed two Bills for protecting the existing admission policy for Under Graduate and Post Graduate admissions in Medical and Dental Colleges. With the approval of His Excellency, the Governor of Tamil Nadu, the said two Bills have been sent to the Government of India for obtaining the assent of the President of India under Article, 254(2) of the Constitution of India. The State Government is continuing to take all steps to safeguard its stand. In case the assent of the President of India is not received before the release of rank lists for MBBS / BDS admission, with a view to protect the prospects of the State Board students who constitute over 95% of the students taking plus two examination and provide them fair and equal

opportunity, the Government has taken a policy decision to allocate 85% of State quota seats to the Tamil Nadu State Board students and balance 15% to the students from other Boards and conduct admission based on marks obtained in NEET.

4.8 New Government Medical College and increase of Under Graduate and Post Graduate medical seats: During the last six years, five Government Medical Colleges have been established at Sivagangai, Thiruvannamalai, Omandurar Government Estate, Chennai and ESIC Hospital, Coimbatore and Pudukottai. Because of the efforts of the State Government, totally 1000 M.B.B.S. seats have been increased in the last six years. Currently, there are 2,900 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
NEW MEDICAL COLLEGES		
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 Medical College and ESIC Hospital, Coimbatore	100
5	Government Pudukottai Medical College	150
INCREASE OF SEATS IN EXISTING MEDICAL COLLEGE		
6	Government Kilpauk Medical College, Chennai	50
7	Government Chengalpattu Medical College, Chengalpattu	50
8	Government Stanley Medical College, Chennai.	100

9	Madras Medical College, Chennai	85
10	Government Mohan Kumaramangalam Medical College, Salem	25
11	Government KAP Viswanatham Medical College, Tiruchirappalli	50
12	Government Thoothukudi Medical College, Thoothukudi	50
	Total	960

In addition the seats in IRT Medical College Perundurai has been increased from 60 to 100 thus increasing the overall seats to 1000 since 2012-13. It may be seen that of 32 Districts in Tamil Nadu, at present 22 Government Medical Colleges are functioning in the 18 Districts. In addition to the above, Government have already issued orders for establishing the new Government Medical College with an annual intake of 150 MBBS students, in the District of Karur. Government have issued administrative and financial sanction for the construction of

buildings for college/hospital 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.

4.9 Starting and increase of Post Graduate seats in 2017-2018: In the current year alone, 320 new PG seats under the new Government of India policy of relaxed norms for sanction of clinical seats in the Government Medical Colleges were approved by the Medical Council of India. Due to the strenuous efforts of the department, this is the first time that an unprecedented 25% increase of Post Graduate seats have been received by the State.

4.10 Starting of Paramedical Certificate Courses / Diploma Courses: In the academic year 2016-17, the following courses have been sanctioned in the following Government Medical Colleges:

Course	Name of the College	No. of Seats
Paramedical certificate courses	Thiruvannamalai Medical College	175
	Sivagangai Medical College	40
	Thiruvarur Medical College	72
	Government Medical College, Omandurar Estate, Chennai	60
	Madurai Medical College	20
TOTAL		367
Paramedical Diploma Courses	Sivagangai Medical College	100
	Thiruvarur Medical College	95
	Government Medical College, Omandurar Estate, Chennai	50
	Dharmapuri Medical College	50
TOTAL		295

4.11 Super Speciality Services in

Government Hospitals: The State Government have established the Multi Super Speciality Hospitals in the following places:

- I. Tamil Nadu Government Multi Super Speciality Hospital, Chennai functions with

400 bed strength using sophisticated equipments. In this hospital, Interventional Radiology is functioning with the 'State of Art' facilities, namely Aneurysm clipping, AVMs (Arterio-venous Malformation - coil embolization, EVAR (Endo-vascular aneurysm repair for abdominal aortic aneurysm) Procedures.

II. Super Speciality Block with Trauma Care Centre at Mahatma Gandhi Memorial Government Hospital, Tiruchirappalli has been established at a cost of Rs.100 crore and is functioning well.

III. Super Speciality Hospitals under Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) Scheme at Madurai, Thanjavur and Tirunelveli at a cost of Rs.150 crore each is in the process of establishment.

4.12 Centre of Excellence for Reproductive and Child Health (RCH) and Maternal and Child Health (MCH):

The Centre of Excellence for RCH at Institute of Obstetrics and Gynaecology and Government Hospital for Women and Children, Chennai, Government Mohan Kumaramangalam Medical College Hospital, Salem and MCH centres at Trichy and Tirunelveli Medical College Hospitals were established and well-functioning. RCH Centre in Government Rajaji Hospital, Madurai is in the process of establishment.

4.13 Radio Frequency Identification tag (Safe Infant Surveillance Programme)

RFID-SISU: In Government Rajaji Hospital, Madurai an unique system named RFID with technical assistance from Anna University has been implemented for preventing baby theft which uses an automated data capture technology to track and identify the real time location of infants through wireless network.

This programme has also been proposed for extension to all the Government Medical College Hospitals working under the control of this Directorate.

4.14 Out Patient Block at Institute of Child Health and Hospital for Children under Japan International Co-operation Agency (JICA Scheme): 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) was inaugurated by the Hon'ble Chief Minister on 04.03.2017. It provides 'State of Art' out-patient services to the Institute of Child Health and Hospital for Children which is a historic and renowned hospital attracting patients all over South India.

4.15 Setting up of Amma Master Health Checkup and Amma Women Special Master Health Checkup: In addition to the priceless

“Amma Arokiya Thittam” being implemented without any fees in all the Blocks in Tamil Nadu covering 25 diagnostic tests, in the Government General Hospital, Chennai, Amma Master Health Checkup and Amma Women special Master Health Checkup have been functioning since 01.03.2016, which provides the following package of tests with the cost package as 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 (Vitamin D, Calcium, Phosphorus and PTH)
Blood sugar F&PP, urea, Creatinine, Uric Acid		
<u>Lipid profiles</u> Total cholesterol, HDL, LDL, Triglycerides, Total cholesterol/HDL ratio		

Liver Function Test		
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		

Further, Government have issued orders to establish Amma Master Health Checkup and Amma Women Special Master Health checkup at Coimbatore, Madurai and Tirunelveli Government Medical College Hospitals at a cost of Rs.10.00 crore to each hospital (total cost Rs.30.00 crore).

4.16 Transplant Authority of Tamil Nadu (TRANSTAN): TRANSTAN has been established at Rajiv Gandhi Government General Hospital, Chennai to co-ordinate the activities of Organ Transplantation including cadaver Organ

Transplantation and related activities in the State of Tamil Nadu which caters the needs of the poor people coming from all over the State of Tamil Nadu as well as other States.

4.17 Modernisation of 'State of Art' Liver Transplantation Operation Theatre at Government Stanley Hospital, Chennai:

The Liver Transplant Theatre at the 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 equipments and gadgets have been added to make it a 'State of Art' Theatre. Some of the old equipments have also been replaced. The renovated building was inaugurated and is functioning.

4.18 Accident and Trauma Care Centres have been established based on the principle of "golden hour" of trauma within which the

patients are transported to a designated trauma care centres within an hour of injury to reduce mortality and to improve morbidity outcome in the following Government Medical College Hospitals/Government Hospitals:

- Government Vellore Medical College Hospital, Vellore
- Government Kilpauk Medical College Hospital, Chennai
- Government Rajaji Hospital, Madurai
- Government Tirunelveli Medical College Hospital, Tirunelveli
- Government Kanyakumari Medical College Hospital, Kanyakumari
- Government District Headquarters Hospital at Karur
- Government District Headquarters Hospital at Krishnagiri

- Government District Headquarters Hospital at Kovilpatti
- Government District Headquarters Hospital at Dindigul

The Accident and Trauma care centres at the Government Chengalpattu Medical College Hospital, Chengalpattu, Government Coimbatore Medical College Hospital, Coimbatore and Government District Headquarters Hospitals at Kallakurichi and Kumbakonam have been recommended by Government of India.

4.19 SKILL CENTRES: The establishment of the Skill Centres (Emergency Life Support course training centres) at a cost of Rs.2.84 crore to impart skill based training for emergency life support to health functionaries (doctors, nurses and Para Medical personnel), standardised training curriculum in emergency medicine and providing the pre-hospital care in ambulances are under process in the

Government Medical college Hospitals at Coimbatore, Madurai and Rajiv Gandhi Government General Hospital, Chennai.

4.20 Burns Centres: The Burns Centre in Kilpauk Medical College Hospital, Chennai, was upgraded to 'Centre of Excellence' at a total cost of Rs.9.15 crore and the same is functioning well. Under the Government of India scheme of National Programme for Prevention and Management of Burns Injuries (NPPMBI) the State Government have taken steps to establish the burns centre in the following Government Medical College Hospitals.

1. Mahatma Gandhi Memorial Government Hospital, Tiruchirapalli.
2. Government Thanjavur Medical College Hospital, Thanjavur.
3. Government Vellore Medical College Hospital, Vellore.

4. Government Mohan Kumaramangalam Medical College Hospital, Salem.
5. Government Coimbatore Medical College Hospital, Coimbatore.

4.21 Regional Cancer Centres: Four Regional Cancer Centres are being established at Government Rajaji Hospital, Madurai, Government Coimbatore Medical College Hospital, Coimbatore, Government Thanjavur Medical College Hospital, Thanjavur and Government Tirunelveli Medical College Hospital, Tirunelveli at a total cost of Rs.60.00 crore. Construction of building works in all the above four centres are in progress.

4.22 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 contribution from the State, 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.

4.23 Breast Milk Banks: For the first time in Tamil Nadu, Breast Milk Bank had been established at the Institute of Child Health and Hospital for Children, Chennai, which was pioneering for the benefit of babies of non-lactating mothers, abandoned neonates, sick neonates, infants at health risk from breast milk of the biological mother and babies whose mother died in the immediate postpartum period. The same was further extended 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 Cath Lab: For the benefit of poor needy patients with cardiac disease who completely

rely on Government Medical Institution for investigation and treatment purposes the Tamil Nadu Government is establishing Cath Lab at a total cost of Rs.42.50 crore on par with private Hospitals to reduce the morbidity of the patients due to cardiac illness in the following Government Medical College Hospitals:

1. Government General Hospital, Chennai
2. Government Stanley Hospital, Chennai.
3. Government Kilpauk Medical College Hospital, Chennai.
4. Government Rajaji Hospital, Madurai.
5. Government Coimbatore Medical College Hospital, Coimbatore.
6. Government Vellore Medical College Hospital, Vellore.
7. Government Tirunelveli Medical College Hospital, Tirunelveli.

8. Government Thanjavur Medical College Hospital, Thanjavur.
9. Government Mahatma Gandhi Memorial Government Hospital, Trichy.
10. Government Chengalpattu Medical College Hospital, Chengalpattu.

4.25 College of Nursing, Madras Medical

College, as National Nodal Centre: In the State of Tamil Nadu, College of Nursing, Madras Medical College, Chennai has been identified to function as National Nodal Centre, by the JPHIEGO, Government of India during the year, 2015. Further, the National Health Mission has sanctioned a sum of Rs.79.37 lakh for establishment of National Nodal Centre for the financial year, 2016-2017. Now one batch of Nursing service candidates (15 Numbers of Nursing Tutors) have completed the 6 weeks programme successfully.

4.26 The details provided in the chapter are the gist of the multi-various activities of this department which has led to Tamil Nadu being able to provide 'State of Art' treatment in its hospitals in addition to creating a continuous pool of human resources of the highest class.

Chapter - 5

MEDICAL AND RURAL HEALTH SERVICES

5.1 The Directorate of Medical and Rural Health Services has been entrusted with the responsibility of providing secondary level medical care to the public and is the basic unit of Health Care System evolved in the State of Tamil Nadu and it has immeasurable records in the medical history for nearing a century. Sincere efforts are being taken by Government constantly to upgrade the facilities of multifarious speciality medical care to cater the needs of the public across the State with respective Joint Director of Health Services at the district level as incharge for the expanded medical services through the following network of hospitals located in the State:

District Headquarters Hospitals	29
Taluk Hospitals	206
Non - Taluk Hospitals	68
Women and Children Hospitals	7
Dispensaries	11
Tuberculosis Hospitals	2
Leprosy Hospitals	7
Rehabilitation Institute and Mental Health	1
TOTAL	331

5.2 The secondary care 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 providing 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 Diseases (NCD)

- Accident and Emergency Services, Family Welfare and Maternity and Child Health, TB Control and Blindness Control Programmes, Tamil Nadu Illness Assistance Society activities and District Mental Health Programme
- Comprehensive Emergency Obstetrics and Newborn Care (CEmONC) in 104 hospitals including all District Headquarters Hospitals and Newborn Stabilization Units (NBSUs) in 114 hospitals and Sick Neo-Natal Care Units (SNCUs) in 42 Government Hospitals exclusively for the Maternity and Child Welfare

ADMINISTRATIVE STRUCTURE

DIRECTOR OF MEDICAL AND RURAL HEALTH SERVICES	
ADDITIONAL DIRECTORS OF MEDICAL AND RURAL HEALTH SERVICES (MEDICAL)-(PLANNING AND DEVELOPMENT)- (INSPECTION)-(ADMINISTRATION) JOINT DIRECTOR OF MEDICAL AND RURAL HEALTH SERVICES(MEDICAL)(CEmONC)(PCPNDT&ACT)(NCD)	
FINANCIAL CONTROLLER	
Joint Director of Health Services	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

5.3 Other Programmes and

Responsibilities: This department is also responsible for implementing the Revised National Tuberculosis Control Programme, District Mental Health Programme, Accident and Emergency 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., which are explained in the forthcoming chapters.

5.4 Ongoing Development Activities: To facilitate better health care delivery in the hospitals, the Government during the year 2016-17 created the additional new posts of One Chief Accounts Officer, 81 Assistant Surgeon, 5 Medical Stores Officer, 39 Chief Pharmacist, 13 Nursing Superintendent Grade-I, 296 Nursing Superintendent Grade-II, 89 Staff Nurse, 39 Physiotherapist Grade -II, 27 Radiographer, 21 Lab-Technician Grade-II, 32 Office

Superintendent, 24 Assistant, 25 Junior Assistant, 39 Office Assistant, 38 Cook and 208 Multi Purpose Hospital Worker.

5.5 In order to provide better and multi speciality services, the Government issued orders for upgrading 12 Non-Taluk Hospitals and 27 Primary Health Centre / Upgraded Primary Health Centres as Taluk Hospitals and to the above newly created Taluk Hospitals, the Government released the funds of Rs.61.17 crore towards recurring and non-recurring expenditure for construction of building, equipment, furniture, linen and manpower.

5.6 This department serves as a bridge between the primary care under the Public Health wing and tertiary care under the Medical Education department providing the necessary treatment services within the district itself in taluks and district headquarters.

Chapter - 6

PUBLIC HEALTH AND PREVENTIVE MEDICINE

6.1 Tamil Nadu has the distinction of having been the first State to have a separate set up and Directorate exclusively for Public Health. Through this Directorate, the Government has been focusing on preventive and promotive health measure using this department as the base with interventions aimed to prevent and manage diseases, injuries and other health conditions through surveillance and promotion of healthy behavior among communities and environmental public hygiene. Functions of Public Health include Health Promotion through healthy behavior, 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 of Tamil Nadu, 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
- Health and Family Welfare Training Centres, Egmore 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
- ANM Training Schools

6.3 Administrative Structure

DIRECTOR	
Additional Directors	
Joint Directors (Programmes)	
Financial Advisor and Chief Accounts Officer, Personnel Officer and Joint Director (Financial and Human Resource Management and Administration)	
Deputy Directors of Health Services Zonal Entomologists and Principals of Regional Training Centres and ANM Schools	
Block Medical Officers, Medical Officers, Institutional and Field Health Functionaries Village Health Nurses and Health Inspectors	

6.4 The department has 1,747 Primary Health Centres (PHCs) including 386 Upgraded PHCs, 336 Urban Primary Health Centres (UPHCs) and 8,706 Health Sub Centres (HSCs). Additionally 140 Urban PHCs are functioning in Chennai Corporation limits.

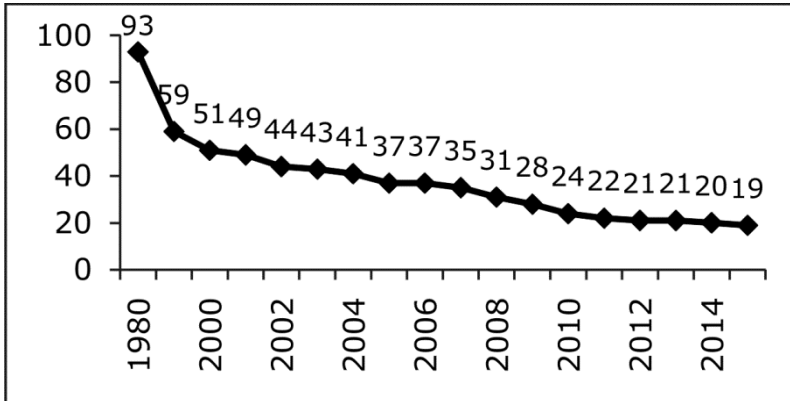
6.5 Infant Mortality Rate (IMR): Infant Mortality Rate, i.e., death of children before the age of one year per 1,000 live births, is a sensitive indicator of health and nutritional status of the population. The current level of IMR in Tamil Nadu for the year 2015 is 19 per 1,000 live births as per the Sample Registration System Survey (2015). 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 1,000 live births) by the year 2017 and on par with developed nations by the year, 2023.

Trend of IMR 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
2015	37	19

Source: Sample Registration System
(SRS) Bulletins

Trends in IMR in Tamil Nadu



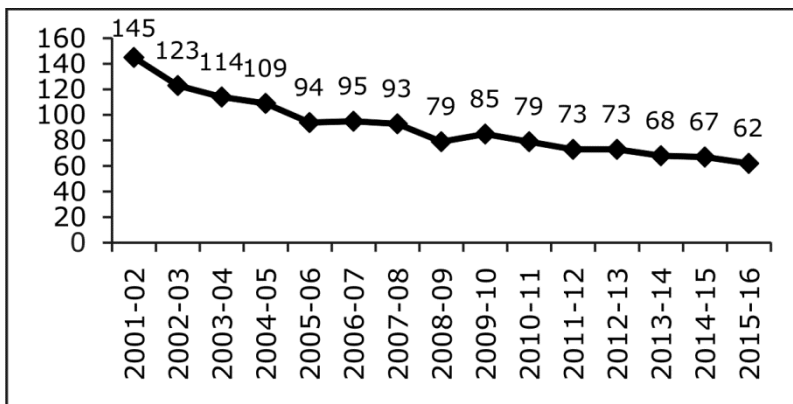
Source: Sample Registration System (SRS) Bulletins

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 efforts to bring down the Infant Mortality Rate by focussing on the components such as the neo-natal mortality rate etc. The goal is to ensure that all preventable deaths are prevented by providing support services at all levels.

6.6 Maternal Mortality Ratio (MMR):

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. Government of Tamil Nadu aims to bring down MMR to less than 44 by 2017 and on par with developed nations by the year, 2023.

Trend in Maternal Mortality Ratio – Tamil Nadu



In 2015-16, Tamil Nadu reported 637 maternal deaths amounting to a MMR of 62 per 1,00,000 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.

6.7 Initiatives for reduction of IMR and MMR: Under **Vision 2023**, the public health policy has been focussed on maternal and newborn health, with a multi-dimensional

approach including addressing issues such as empowerment of women, improved nutrition which are the key factors behind the advances in maternal and child health in Tamil Nadu. The impact of the initiatives of the Government is reflected in improved literacy, reduced incidence of early marriage, early pregnancy and frequent pregnancies and in a high level of public awareness on family planning and good nutrition. A dynamic public health system has made use of this environment to progress towards its goal of making pregnancy safer through effective women-centred initiatives.

6.8 Apart from schemes under the National Health Mission, 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 rooms, Accessible blood bank and Storage Centres,

Menstrual Hygiene Programme, Chief Minister's Comprehensive Health Insurance Scheme etc., have contributed significantly towards the improvement of health indicators. In addition to these schemes, strengthening of Basic Emergency Obstetric and Newborn Care (BEmONC), Comprehensive Emergency Obstetric and Newborn Care (CEmONC), Maternal and Child Health level II centres apart from upgradation of facilities are pioneering schemes in India which have later been adopted 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 rooms, 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

6.9 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 1,747 Primary Health Centres of which 1,641 PHCs are functioning in Government Buildings, while 106 PHCs are functioning in Rent / Rent Free Buildings. To improve the availability of Primary Health Care services to the urban poor, 336 Urban PHCs are functioning under the control of the Directorate of Public Health and Preventive Medicine. Additionally 140 Urban PHCs are functioning in Chennai Corporation.

6.10 Health Sub Centres: A Health Sub Centre (HSC) is established for a population of 5,000 in plain areas and 3,000 in hilly areas. Village Health Nurses (VHN) render services from the

HSCs and outreach services in the villages. There are 8,706 HSCs in Tamil Nadu. While 6,837 HSCs are functioning in Government buildings, 1,869 HSCs are functioning in rented buildings. Further, multi-various steps have been taken to construct own buildings for remaining HSCs through NHM and other resources. HSCs are the hub for delivering Maternal and Child Health (MCH) and Family Welfare (FW) services to the people in the rural areas. HSCs are supported by Primary Health Centres (PHC), Community Health Centres (CHC), Hospital on Wheels (HOWP) and School Health Teams. The set of services that the Health Sub Centre will provide is laid down under the Indian Public Health Standards (2012). For the sub centres to become the first port of call, assured set of services would be provided at the Health sub centre level. In urban areas, Urban Primary Health Centres (UPHC) would serve as the first point for delivery of

primary health care. Outreach services would be provided through Urban Health Nurses (UHNs) based in UPHCs. UHN would provide preventive, promotive and curative health care services to households through routine outreach sessions.

6.11 Universal Health Coverage: Since 2017, the scope of the Health sub centres is being further expanded to render the Universal Health Coverage (UHC). UHC seeks to implement IPHS guidelines for strengthening Health sub centres in the rural and urban areas in Tamil Nadu towards universalising access to Essential Assured Services to improve coverage and quality of institutional and outreach services with home visiting towards achieving health goals under Sustainable Development Goals (SDG). Essential Assured Health Services packages will be made available under UHC rendered through Health Sub Centres, Primary

Health Centres, Upgraded Primary Health Centres and Hospital on Wheels.

6.12 Upgradation of Primary Health

Centres: Next level to the basic PHC, a 30 bedded upgraded PHC is established at the rate of at least one per block to provide round the clock essential health care services. 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 248 block level and selected Upgraded PHCs to treat dental ailments. At present 386 Upgraded Primary Health Centres are functioning in 355 blocks. These facilities will be extended to the remaining 30 blocks. The Government have planned to provide dental health care services in all the

upgraded and block level PHCs in a phased manner.

6.13 Urban Primary Health Centres: The Urban Primary Health Centres (UPHCs) established under National Health Mission have been brought under the administrative control of the Directorate of Public Health and Preventive Medicine. Under National Urban Health Mission, 40 new Urban PHCs in Chennai Corporation and 37 New Urban PHCs in other Corporations and Municipalities have been established. 100 existing Urban Health Posts in Chennai Corporation and 243 existing Health facilities in 12 Corporations and 75 Municipalities have been 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.

Other important Services and Programmes

6.14 Dr.Muthulakshmi Reddy Maternity

Benefit Scheme: Dr.Muthulakshmi Reddy Maternity Benefit Scheme (MRMBS) is 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 newborn babies. The assistance which was given at Rs.6,000 per beneficiary has been increased 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. 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 benefit from the scheme every year. For the financial year 2016-17, Rs.667 crore has been allocated for this programme and upto 31 March, 2017, Rs.609.37 crore has been disbursed to 6,49,904 mothers under this programme. An amount of Rs.1,000 crore has been provided for the year 2017-18 for this programme. This has since been enhanced to Rs.18,000 per beneficiary.

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
2016-17	609.37	6,49,904
TOTAL	3696.70	39,57,398

6.15 Hospital on Wheels Programme:

416 Mobile Medical Units, which now have necessary additional manpower, laboratory facilities and other diagnostic equipment to provide high quality medical care, cover the remote villages and hamlets as per the fixed day, fixed time plan specific for each block in a camp mode. 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. The performance for six 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
2016-17	416	2,05,452	1,65,23,783
Total		10,96,417	7,04,73,600

6.16 Promotion of Menstrual Hygiene:

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. 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 woman 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.

6.17 Deworming: Under this initiative, children in the age group of 1 -19 years are given 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. In order to control infection and to improve health, as initiated in 2015, National Deworming Day (NDD) was conducted on 10th February, 2017 (Friday) followed by Mop-up day on 15th February 2017, (Wednesday) was conducted. 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)

This initiative will help in controlling anaemia to a great extent among children.

6.18 Amma Baby Care Kit: In the floor of assembly, the late Hon'ble Chief Minister on 12.08.2014 announced this novel initiative, 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 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, upto March, 2017, 8.83 lakh mothers have been given these kits for their babies.

6.19 Amma Arokiya Thittam: This annual wellness health checkup programme is implemented 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 Block PHCs. 25 parameters are screened under this program. The scheme is now extended to the urban areas through the selected Urban PHCs. If any disease condition is identified during this screening, the

patients are treated at the Primary Health Centres / Government Hospitals / Medical College Hospitals / Empanelled Hospitals free of cost as applicable under Hon'ble CMCHIS. During the financial year 2016-17, a sum of Rs.486 lakh was sanctioned for implementation of this scheme by National Health Mission. So far, 21 lakh persons have availed benefit since the launch of the scheme in March, 2016.

6.20 '104' Health Helpline: '104' Health Helpline which was launched on 30.12.2013 helps in providing the following services:

- 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 on 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.

6.21 Grievance Redressal: 2,580 Closed User Group (CUG) mobile connections have been distributed to all the Nodal Officers and District level officers in the Health Department for the

Real Time Grievance Redressal related to Health care service.

6.22 Facilities for Lactating Mothers: 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. With a view to facilitate Breast feeding even during travel, rooms providing privacy for breast feeding was inaugurated in 352 bus stands / terminus on 03.08.2015.

6.23 Other Programmes: 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 Tamil Nadu is considered as a pioneer in the implementation of the Family Welfare Programme in the country. The Family Welfare Programme is recognized as a priority programme and is being implemented in Tamil Nadu since 1956 with 100% central assistance to reduce Birth Rate to the extent necessary to stabilize the population at a consistent level. The Programme is implemented in coordination with various related departments. In view of commendable progress achieved by the State in reducing the birth rate, the focus has shifted from a "Target based approach" to "Community Needs Assessment Approach" where importance is given to meet the unmet needs for family planning services and improving maternal and child health. This has been achieved due to the strong social and

political commitment and a robust administrative setup.

7.2 Demographic Indicators:

As per the last census (2011), 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. The projected population for 2017 is approximately 7.91 crore. The demographic scenario of the State is furnished below:

Sl. No	Indicators	Current level
1	Crude Birth Rate	15.2 / 1000 population
2	Crude Death Rate	6.7 / 1000 population
3	Total Fertility Rate	1.6
4	Infant Mortality Rate	19 /1000 live births
5	Maternal Mortality Ratio (2015-16 HMIS)	62 /1,00,000 live births
6	Natural Growth Rate	0.85%

7.3 Administrative Structure:

- Director
- Joint Directors
- Deputy Directors
- Chief Accounts Officer
- Deputy Directors in all districts

7.4 Family Welfare Services: Permanent Methods like, Conventional vasectomy, No scalpel vasectomy, Tubectomy and Laparoscopic sterilization and temporary spacing methods like, Copper-T 380A and 375, Oral contraceptive pills, Injectable contraceptive (Antara), Centchroman pills (Chhaya), Emergency contraceptive pills and Condoms are made available in the Government Health Facilities to all eligible couples free of cost. Medical Termination of Pregnancy is provided by Manual

Vacuum Aspiration and Medical Method of Abortion.

7.5 Facilities providing Family Welfare

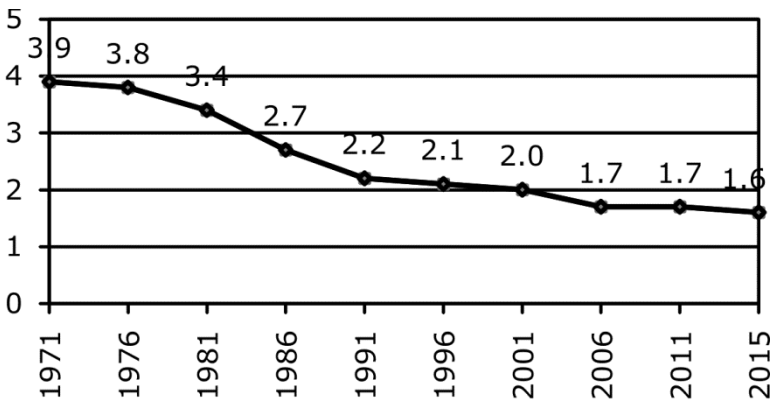
Services: The Family Welfare Services are provided in the following facilities:

1	Primary Health Centres	1,362
2	Community Health Centres	385
3	Urban Primary Health centres	473
4	Health Sub-Centres	8,706
5	Rural Family Welfare Centres attached with PHC/CHC	382
6	Post Partum Centres	110
7	Urban Family Welfare Centres	108
8	Urban Health Posts	193
9	Voluntary Organisations	27
10	Approved Private Nursing Homes	2,136

7.6 Performance in Family Welfare Outcomes:

7.6.1 Total Fertility Rate (TFR): Total Fertility Rate means average number of children born to a woman in her reproductive age group. The current level of Total Fertility Rate in Tamil Nadu is 1.6 as per the Sample Registration Survey-2015. The State ranks as the lowest among the major States in the country.

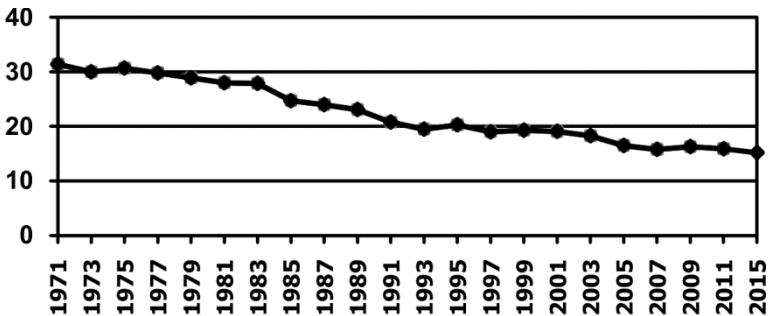
Trends in Total Fertility Rate (TFR)



7.6.2 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 15.2 per 1000 population as per the Sample Registration Survey - 2015. The State ranks as the second lowest among the major States in the country.

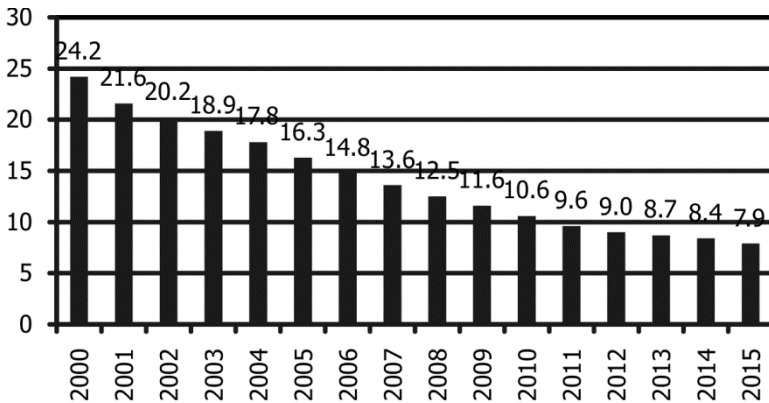
Trends in Crude Birth Rate:



7.6.3 Higher Order Births (3 and above order of births): Third and above order of births are termed as higher order births. The State has shown significant decrease in the

percentage of higher order births which has been reduced from 24.2 (2000) to 7.9 (2015).

Trends in Higher Order Births:



7.7 Schemes implemented under the Family Welfare Programme:

7.7.1 Male Sterilization: It is an ongoing programme implemented in the State. Special awareness campaigns are conducted to motivate males to accept No Scalpel Vasectomy. NSV camps are conducted in all the districts to provide services to the needy people.

7.7.2 Female Sterilization: Sterilization services for female are provided in 259 Government Hospitals, 378 Primary Health Centres, 36 Health Centres in Municipal Corporations and 2,136 approved private nursing homes in the State. Mostly delivered mothers having two and above living children are provided sterilization services before discharge from the hospitals. During 2017-18, a sum of Rs.480.0 lakh will be incurred to provide diet to the sterilization acceptors in all the Government facilities.

7.7.3 Post Partum Intrauterine Contraceptive Device (PPIUCD): Copper-T inserted to the delivered mothers within 48 hours is called post partum intrauterine contraceptive device. The Doctors and staff nurses are trained to insert IUCD in the post partum period. Mostly mothers with one child are counseled and inserted IUCD immediately

after delivery. Delivered mothers who are not fit for Tubectomy will be counseled and inserted with PPIUCD. During 2017-18, it is proposed to train 450 doctors and 1200 para-medical (SN/HV/ANM) Staff in PPIUCD insertion at a total cost of 25.20 lakh. It is proposed to insert 2.5 lakh PPIUCD during 2017-18 and a sum of 3.75 crore will be incurred as service provider fees.

7.7.4 Injectable contraceptives: The injectable contraceptive, Medroxy Progesterone Acetate (MPA) given every three months as an injection, is a new method available in all Government health facilities through a programme called Antara. It can be given by a trained Doctor/Staff Nurse/ANM in the health facilities. It prevents pregnancy over a long period of time and helps in achieving spacing between children. During 2017-18 it is proposed to give training to doctors and para-medical staff

for injecting this contraceptive at a cost of Rs.25.6 lakh.

7.7.5 Centchroman pills (Chhaya):

Centchroman pill is also a new contraceptive pill introduced in all public health facilities in the name of Chhaya to benefit more women at no cost. Chhaya does not contain any hormone. It is a safe spacing option for both breast feeding and non-breast feeding women and needs to be taken only twice a week for first three months and then once a week.

7.7.6 Medical Termination of Pregnancy

(MTP) Programme: Annually 63,000 MTPs are performed in the Government and private institutions. About 37% of the MTPs are performed under Manual Vacuum Aspiration (MVA) technique. In order to provide safe abortion services to the needy mothers, the doctors and nurses of PHCs and Government Hospitals are imparted MVA technique training in

Eight Medical College Hospitals, Two Government District Headquarters Hospitals and One Non-Taluk Hospitals which is safe and simpler technique. During 2017-18, 100 doctors will be trained in the MVA technique at a cost of Rs.16.40 lakh and a sum of Rs.16.2 lakh will be incurred to supply 9000 Medical Method of Abortion drugs to all CEmONC centres.

7.7.7 Reduction of Higher Order Births

(3 and above): 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 are more than 10.5%. The unmet needs, MMR and IMR can be reduced by providing sterilization services to the uncovered mothers having two and above order of living children. Village wise line list of these eligible mothers were prepared and available with Village Health Nurse in the 120 blocks. These

mothers are counseled to accept sterilization in the government health facilities. Sterilization camps and IUCD camps will be conducted in these 120 blocks during 2017-18 and a sum of Rs.244.80 lakh will be incurred to conduct the camps.

7.8 Information, Education and Communication Activities: To create awareness about permanent and temporary Family Welfare methods among Eligible Couples (ECs) in the State, family welfare messages are printed in the display board and supplied to all districts and family planning messages are broadcasted through FM stations.

7.9 Family Planning Indemnity Scheme

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

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

7.10 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.

7.11 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. 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, MMR and stabilize the population in the State.

Chapter - 8

MEDICAL AND RURAL HEALTH SERVICES

(Employees' State Insurance)

8.1 The Employees' State Insurance Corporation (ESIC) of Tamil Nadu is a statutory body functioning under ESI Corporation, New Delhi. It has 10 ESI Hospitals and 216 ESI Dispensaries functioning under it. ESI Medical College at Coimbatore has been added to the Government Medical Colleges functioning under Government of Tamil Nadu. The Doctors and Para-Medical staff are placed from the Health and Family Welfare Department.

8.2 The administration of ESI Dispensaries in this State is done by four Regional Administrative Medical Officers (ESI) functioning at Chennai, Coimbatore, Madurai and Salem.

8.3 Of the 10 ESI Hospitals in Tamil Nadu, two hospitals viz. K.K. Nagar-Chennai and Tirunelveli are under the direct control of the ESI Corporation, New Delhi. The remaining seven ESI Hospitals are under the control of the Director of Medical and Rural Health Services (ESI), Tamil Nadu and one ESI Hospital, Coimbatore is under the control of the Director of Medical Education.

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

8.5 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 Policy Note.

Chapter - 9

INDIAN MEDICINE AND HOMOEOPATHY

9.1 Indian Systems of Medicine is the unique heritage of our Country. The Indian Systems of Medicine have been providing dependable health care to the teeming millions of Indians from time immemorial. These health care systems source their medicines mainly from the herbs commonly grown throughout the length and breadth of the Country. The efficacy of these traditional medicines remains time-tested. This proud tradition of these systems of health care has become inseparable part of the system of food habits and life style of the people. The popular adage of Tamil “உணவே மருந்து மருந்தே உணவு” succinctly illustrates the importance of regulated diet replete with traditional herbs in the day to day life in sync with nature. The ISM stands on the bedrock of the irrefutable principle of **“prevention is better than cure”**. The ISM

synonymous with AYUSH covers the traditional health care of Siddha system, Ayurveda, Yoga and Naturopathy and also includes the popular Unani system of medicine and Homoeopathy. Although Unani and Homoeopathy systems have come to India from the foreign soil, they have been well received by the public and became inalienable part of the health care protocol in the country. **Even before the advent of the modern medicine,** these ISM have been offering the most cost effective and the sustainable relief to all sections of the society from various ailments without any adverse side effects and they continue to retain the credit. During the past 5 years the ISM has made a big leap in health care delivery by successfully managing various diseases and has received patronage from public and Government of Tamil Nadu.

9.2 The “Department of Indian Medicine and Homoeopathy” which came into existence in 1970 is dedicated to teaching and providing health care in five systems of Indian Medicine viz., Siddha, Ayurveda, Unani, Homoeopathy, Yoga and Naturopathy.

Administrative Structure



Objectives of the Department

9.3 The main objectives of the department are:

- Bringing Indian system of Medicine into the mainstream to give holistic health care
- Opening of co-located ISM wings at PHC levels in all the districts
- Improvement of educational institutions in Siddha, Ayurveda, Unani, Yoga and Naturopathy and Homoeopathy to provide students with all the necessary infrastructure for gaining systematic knowledge in the respective system
- Encouraging the processing and manufacture of ISM&H drugs and promote research and development activities in ISM&H
- Developing the existing Government Indian Systems of Medicine and

Homoeopathy Medical Colleges and to improve the standard of Medical Education in these systems

- Opening of new Medical Colleges in these systems
- Encouraging the growth of Centre of Excellence in the field of Indian medicine
- Regulation of Drug Manufacturing and Quality Control of Indian System of Medicine to ensure availability of quality drugs to public.
- Introduction of Siddha Pura Maruthuva Muraigal (External Therapies of Siddha System of Medicine) like Varma, Thokkanam, Nasium etc., in all Siddha wings
- Establishing life style clinics in Yoga and Naturopathy in all Government Hospitals

Medical Treatment

9.4 Details of the institutions providing medical treatment, under Indian system of Medicine and Homoeopathy, are as follows:

System	Total
Siddha	1,058
Ayurvedha	101
Unani	66
Yoga and Naturopathy	158
Homoeopathy	108
Total	1,491

9.5. The Bed Strength in the Indian System of Medicine Colleges and various Hospitals managed by this department are as follows:

A 350 bedded Hospital is attached with Government Siddha Medical College, Palayamkottai, Tirunelveli. The 310 bedded Arignar Anna Government Hospital of Indian Medicine, Chennai has separate wards for Siddha, Varma, Ayurveda, Unani systems of medicine. A 100 bedded Hospital is attached

with Government Ayurveda Medical College, Kottar, Nagercoil. A 50 bedded Hospital is attached with Government Homoeopathy Medical College, Thirumangalam, Madurai. A 50 bedded Hospital is attached with Government Yoga and Naturopathy Medical College in Chennai. Apart from these, Government Pentland Hospital, Vellore is functioning with 25 bedded Siddha ward. District Head Quarters Hospitals at Dindigul, Erode, Kancheepuram, Nagapattinam and Tiruppur are functioning with 25 bedded Siddha ward. District Head Quarters Hospitals at Mettur, Namakkal, Nagercoil, Karur, Kumbakonam, Tiruvarur, Tiruchirapalli, Sivagangai, Villupuram and Virudhunagar are functioning with 16 bedded Siddha ward. Government Medical College, Thoothukudi is functioning with 15 bedded Siddha ward. District Head Quarters Hospitals at Cuddalore, Dharmapuri and Ramanathapuram are functioning with 15 bedded Siddha ward.

The Taluk Hospital, Chidambaram, Cuddalore District is functioning with 15 bedded Siddha ward and Non Taluk Hospital, Kadayanallur, Tirunelveli District is functioning with 15 bedded Siddha ward.

Medical Education

9.6 Under the control of Indian Medicine and Homoeopathy Department, Under Graduate degree courses (BSMS/BAMS/BNYS/BUMS/BHMS) in the systems of Siddha, Ayurveda, Yoga and Naturopathy, Unani, Homoeopathy and Post Graduate degree courses (M.D {S}, M.D {H} and M.D {Y&N}) in the systems of Siddha, Homoeopathy, Yoga and Naturopathy are being imparted in the respective 6 Government Colleges and 22 Self Financing Colleges as follows:

S. No	Medical System	No. of Govt. Colleges	No. of Private Colleges
1	Siddha	2	6
2	Ayurvedha	1	4
3	Unani	1	0
4	Yoga and Naturopathy	1	3
5	Homoeopathy	1	9
Total		6	22

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

- Government Siddha Medical College and Hospital, Palayamkottai, Tirunelveli District
- Government Siddha Medical College, Arignar Anna Government Hospital of Indian Medicine (AAGHIM) campus, Arumbakkam, Chennai

- Government Yoga and Naturopathy Medical College, AAGHIM campus, Arumbakkam, Chennai
- Government Homoeopathy Medical College and Hospital, Tirumangalam, Madurai District
- Government Unani Medical College, AAGHIM Campus, Arumbakkam, Chennai
- Government Ayurveda Medical College and Hospital, Kottar, Nagercoil, Kanniyakumari District

9.7 Tamil Nadu has the unique credit of being the only State in the Country where Government Medical Colleges have been established in all the disciplines of Indian Systems of Medicine and Homoeopathy. Number of seats available in the Government Colleges and the Private Colleges for admission to the Under Graduate (UG) and

Post Graduate (PG) Courses of ISM&H are given as under:

Sl. No	Discipline	Details of seats available for admission			
		Government		Private	
		UG	PG	UG	PG
1.	Siddha	160	94	310	--
2.	Ayurveda	60	--	190	--
3.	Unani	60*	--	--	--
4.	Yoga and Naturopathy	60	15	240	--
5.	Homoeopathy	50	--	610	30
Total		390	109	1350	30

(* The admission capacity in Bachelor of Unani Medicine and Surgery (BUMS) course in Government Unani Medical College, Chennai has been increased from 26 to 60 from the academic year 2016-17.)

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

9.8 Under the policy of main streaming, at present Indian System of Medicine and Homoeopathy treatment facilities are made

available in Allopathy Medical College and Hospitals, Multi Super Specialty Hospital, District Headquarters Hospitals, Taluk and Non-Taluk Hospitals and Primary Health Centres (including 475 wings funded under National Rural Health Mission) and AYUSH Wellness Clinics as shown below:

System	ISM&H and Homoeopathy Wings in Tamil Nadu (System wise)																				Grand Total		
	Regular											NRHM			AYUSH Wellness Clinic								
	Colleges	Major Hospital	MCHL	Multi Super Specialty Hpl. (Omanthurad)	DHQHpl	Taluk hpl.	Non Taluk Hpl.	PHC	Regular Dispy.	Tribal Dispy.	Mobile	Rural Dispy.	Total	NRHM at Taluk Hpl	Wings at PHC	Y & N Maternity Clinic	Total	Taluk	Non Taluk	PHC		Regular-Dispensary	Total
Siddha	2	3	15		31	190	58	407	13	7	1	45	772	4	271		275	4	2	5		11	1058
Ayurveda	1	2	3		4	2	2	25	6			3	48		52		52			1		1	101
Unani	1	1	2		3		4	14	0				25	1	39		40		1			1	66
Homoeopathy	1	1	9		20	8		6	5				50		57		57	1				1	108
Yoga and Naturopathy	1	1	19	1	30	31		2	5				90	2	20	29	51	15			2	17	158
Total	6	8	48	1	88	231	64	454	29	7	1	48	985	7	439	29	475	20	3	6	2	31	1491

Paramedical Human Resources

9.9 Two Diploma Courses (viz.) Diploma in Integrated Pharmacy and Diploma in Nursing Therapy are being conducted at Arignar Anna Government Hospital of Indian Medicine,

Chennai and Government Siddha Medical College, Palayamkottai, Tirunelveli. The courses are of two and half year duration and aim at promoting the availability of institutionally qualified Pharmacists and Nursing Therapists under this system of medicine. The numbers of seats sanctioned for Diploma Course in Integrated Pharmacy and for Nursing Therapy are as follows:

S. 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

State Drug Licensing Authority for Indian Medicine

9.10 Licensing of Indian Systems of Medicine drugs as per Drugs and Cosmetics Act, 1940 and Drugs and Cosmetics Rules, 1945 is being done by the State Licensing Authority (Indian Medicine) with effect from 29.11.2007. 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 Drugs in Ayurveda, Siddha and Unani 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

9.11 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 system 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). The Drug Inspectors (Indian Medicine) discharge their statutory function under section 33G of Drugs and Cosmetic Act, 1940. Statutory status has been conferred on the Laboratory. For the purpose of standardization and quality control of ISM

Medicines advanced and modern equipment have been installed in the Laboratory.

National Institute of Siddha

9.12 The National Institute of Siddha, a joint venture between the Central and State Government, is functioning from the year 2005 at Tambaram, Chennai. The institute is imparting Post Graduate education in Siddha apart from promoting research activities. The State Indian Medicine and Homoeopathy Department maintains a close liaison with the National Institute. The institute has 200 Beds for providing in-patient services and is providing treatment for an average of 1,500 out-patients per day.

Arignar Anna Government Hospital of Indian Medicine, Chennai

9.13 The Arignar Anna Government Hospital of Indian Medicine, located at Arumbakkam,

Chennai, is functioning in this campus since the year, 1970. It is a unique 310 bedded hospital where treatment to general public is imparted free of cost in all the systems of Indian Medicine i.e. Siddha, Ayurveda, Unani and Yoga and Naturopathy and in Homoeopathy. The medicines required for this hospital is being manufactured in the Pharmacy attached to this hospital. This Pharmacy is also manufacturing Siddha, Ayurveda and Unani medicines required for 12 Siddha dispensaries in Chennai City and 24 Unani dispensaries throughout Tamil Nadu.

CYCLONE (VARDHA) RELIEF CAMP

9.14 In the wake of Cyclone Vardah, Cyclone Relief Camps for distribution of “Nilavembu Kudineer” have been conducted from 18.12.2016 to 22.12.2016 in cyclone hit districts viz. Chennai, Kancheepuram and Thiruvallur. A total of 3,87,965 public have benefitted and some Siddha Medicines like Thalisyat

Chooranam, Thairchoondy Chooranam, Pain Balm, Vengavennai were also issued to prevent infection and viral fever.

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

9.15 Tamil Nadu Medicinal Plant Farms and Herbal Medicine Corporation Limited (TAMPCOL) was formed in the year 1983 with the main objective to manufacture Indian Systems of Medicines i.e., Siddha, Ayurveda and Unani. Its head office functions at Anna Hospital Campus, Arumbakkam, Chennai and its factory is functioning at SIDCO Pharmaceutical Campus, Alathur near Thiruporur, Kancheepuram District. The Corporation supplies its manufactured medicines to all ISM Institutions of the State and as a Nodal Agent, also procures and supplies medicines, equipments, etc., for ISM&H Institutions. It has two sales counters at

Chennai and Palayamkottai. A free Medical Consultancy Clinic is functioning at Corporate Office from Monday to Saturday between 9 a.m. and 12 noon in the morning and 3 p.m. to 5 p.m. in the evening with doctors from all streams of Indian System of medicines. The Corporation in its factory manufactures 119 medicines out of 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]. Chooranam, thailam, vennai, kudineer, parpam, chenduram, lehiyam, tablets, capsules, syrups, etc., are the various forms in which these medicines are manufactured. The Authorized and Paid up Share Capital of the Corporation is Rs.300 lakh. In the financial year 2015-16 the Corporation extended a rate rebate of 20% on the sales made to Government institutions during the months of February and March, 2016 amounting

to Rs.63,50,837/- and thus to that extent State Budget expenditure is saved. During 2016-17, the same rate rebate of 20% is extended with effect from 01.09.2016 to 31.03.2017, resulting in the savings of State Budget to a tune of Rs.175 lakh approximately. Supply of Sowbhagyasunti Lehiyam for Amma Baby Care Kit scheme for the newborn and maternal care is continued in 2016-17 also. 11 medicines under **Amma Magaperu Sanjivi Kit** for pregnant women have been supplied to all the Siddha wings in the State during the year 2016-17 at a cost of Rs.5.5 crore. The Corporation purchased land and building of Tamil Nadu Salt Corporation Limited at C-5, SIDCO Pharmaceutical Complex, Alathur for further developments and the above land and building was registered on 01.02.2017 in favour of TAMPCOL.

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

9.16 Due to sustained efforts of the department in creating awareness to the use of Malai Vembu, Nila Vembu, Papaya leaf juice and Kaba Sura kudineer in treatment of various diseases like dengue, Swine flu, viral fever etc, those medicines are gaining public acceptance and playing a very important role in controlling the spread of communicable diseases and increasing immunity levels of general public.

Kaba Sura kudineer

9.17 Kaba Sura Kudineer is an enriched Siddha Sasthric preparation containing 15 herbals ingredients to fight viral fever associated with respiratory diseases.

Ingredients:

1. Sukku	2.Thippili	3. Kirambu
4.Sirukanchori	5.Aragaram	6. Mulliver
7.Kadukkai Thole	8.Karpooravalli	9. Aadathoda
10. Kostam	11.SiruThekku	12. Nilavembu
13.VattaThiruppi	14.Muthakkasu	15. Chindil

Dosage: 30-50 ml 2-3 times a day

Ref: Siddha Vaidhya Therattu

Ingredients presented like Sukku, Kirambu, Kadukkai Thole, Nilavembu, Muthakkasu possess a strong Anti-Viral activity. Herbs like Chindil, Nilavembu, Adathoda, Siruthekku, Aragaram, Sukku has a strong anti-pyretic action and hence help to control the very high temperature in infections. Chindil and Kadukkai present in kaba sura kudineer possess a great anti - oxidant property. Kostam, kadukkai and muthakkasu present in kaba sura kudineer possess immuno-modulatory action and help to boost the immune system of the patient. Aadathoda, Thippili, karpuravalli, sukku,

Kanchori ver, Vattaththiruppi present in Kaba Sura Kudineer helps to reduce the cough, headache, sinusitis and it helps to strengthen the respiratory system. The herbal ingredients present in kaba sura kudineer are in practice in siddha medicine for several centuries to fight deadly fever which primarily affects the respiratory systems. It is very clear from the Siddha literature evidence that the Kaba Sura Kudineer formula not only helps to fight the fever but also helps to prevent the complication and severity of the fever especially affecting the respiratory system. **Like the Siddha herbal decoction Nilavembu Kudineer, which plays a vital role in fighting dengue in Tamil Nadu, so will be the role of Kaba Sura Kudineer in treating Swine Flu.**

9.18 Acknowledging the role of Yoga and Naturopathy in preventing and curing of Life Style Disorders/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 Government Yoga and Naturopathy Medical College, Chennai. The Post Graduate students were admitted from the year 2014-2015.

Amma Magaperu Sanjeevi Kit

9.19 It is well known that the holistic motherhood does not end with child birth alone. It expands and includes the Neo-natal care of the baby and post delivery health of women. With a view to support the health care needs of a woman during pregnancy, 11 (eleven) herbal medicines used in Siddha system are being supplied to pregnant women in the name of "Amma Magaperu Sanjeevi Kit".

9.20 The Government accorded sanction for Rs.5.2 crore for construction of Gents Hostel for Government Yoga and Naturopathy Medical College, Chennai during 2016. The construction work is nearing completion. The Government accorded sanction for Rs.11.45 crore for construction of Ladies Hostel for Government Yoga and Naturopathy Medical College, Chennai based on announcement made by the Hon'ble Chief Minister under Rule, 110 of the Legislative Assembly. Action is being taken to construct the above hostel.

9.21 National AYUSH Mission: In the year 2014, Government of India have constituted National AYUSH Mission (NAM), comprising the components of

- a. AYUSH Services.
- b. AYUSH Educational Institutions.

c. Quality Control of Ayurveda, Siddha, Unani and Homoeopathy Drugs.

d. Promotion of Medicinal Plants.

9.22 Based on the guidelines of the Government of India, the Government have formed the "State AYUSH Society – Tamil Nadu" to implement the schemes sanctioned to the State under the National AYUSH Mission. The 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. For the year 2016–17, the total resource allocation was Rs.31.09 crore.

Chapter - 10

FOOD SAFETY AND DRUGS ADMINISTRATION DEPARTMENT

FOOD SAFETY

10.1 In order to ensure safe and wholesome food to the community, Food Safety and Standards Act, 2006, was enacted by the Government of India by repealing the Prevention of Food Adulteration Act, 1954, and other related Acts, which came into force all over India including Tamil Nadu from 5th August, 2011. Tamil Nadu Food Safety Department was created in the State on 22.12.2011 under the provisions of this Central Act.

10.2 The department is headed by the Commissioner of Food Safety who is assisted by the Director and Additional Commissioner of Food Safety, other supportive Staff at State Level and 32 Designated Officers at Districts and

584 Food Safety Officers (385 for Blocks and 199 for Urban) to implement the Act. Six Food Laboratories established at Chennai, Thanjavur, Madurai, Salem, Coimbatore and Palayamkottai have been notified under the Food Safety Act for testing food samples.

10.3 All Designated officers and Food Safety Officers have been given orientation training on the implementation of the Food safety and Standards Act, 2006 and Rules, 2011.

10.4 Under the Food Safety and Standards Act, 2006, all the Food Business Operators, whose annual turnover is more than Rs.12 lakh have to get license from Designated Officers and Food Business Operators, with less than Rs.12 lakh have to get registration certificate from the Food Safety Officers for their food establishments. All the food business vendors are expected to manufacture, store and sell only safe food as per the Food Safety and Standards Act. Field officers

have the primary responsibility of ensuring safety of food and food related items in their area. The Food Safety and Standards Authority of India has not extended the time limit for taking license and registration after 04.08.2016.

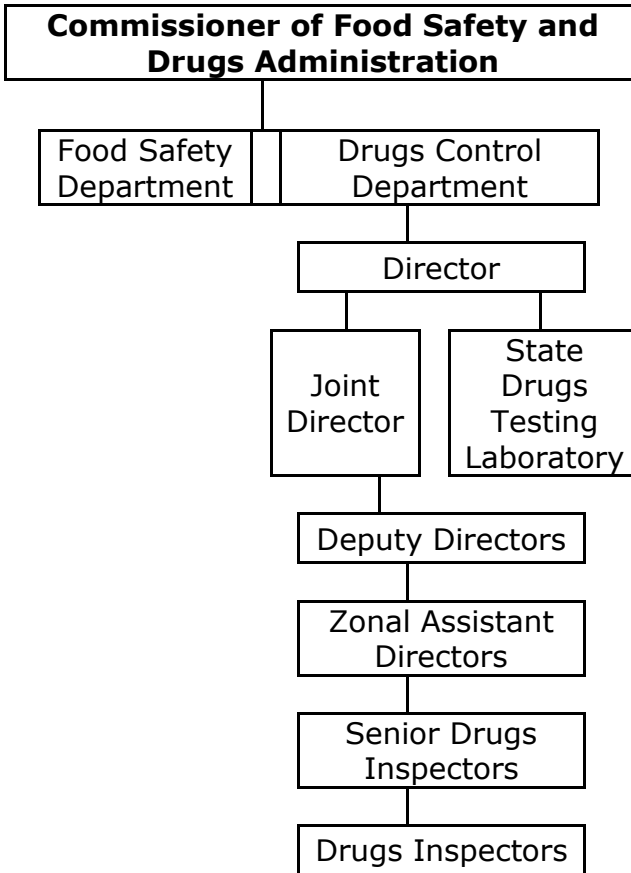
10.5 Online Licensing / Registration facility is implemented in all districts since June, 2013.

10.6 The Tamil Nadu Government banned the manufacture, storage, distribution, transport and sale of gutkha, panmasala, chewing tobacco and other food products containing tobacco or nicotine as ingredients by whatever name or description, 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.

DRUGS CONTROL ADMINISTRATION

10.7 The Drugs Control Department, Tamil Nadu has been functioning as a separate department with effect from 13.11.1981 with the Director of Drugs Control as Head of Department now under one umbrella organization namely Tamil Nadu Food Safety and Drugs Administration (TNFS & DA) Department, under the administrative control of “Commissioner of Food Safety and Drugs Administration”.

Administrative Structure



10.8 Drugs Control Department, being statutory body, 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.

10.9 There are 14 Zonal Offices (5 in Chennai, remaining in other areas) and a Mobile Squad at Madurai under the control of Directorate of Drugs Control Department, each headed by an Assistant Director of Drugs Control. The Zonal Assistant Directors are delegated with the powers of issuing licenses for the grant / renewal of sales concerns in the zone. In the Directorate, there is one post of Joint Director of Drugs Control and three posts of Deputy Director of Drugs Control to assist the Director of Drugs Control in the functioning of the department. Out of 15 Senior Drugs Inspectors and 146 Drugs Inspectors in the State, 12 Senior Drugs Inspectors and 136 Drugs Inspectors are in various Zones and three Senior Drugs Inspectors and six Drugs Inspectors are in the Office of the Director of Drugs Control, Chennai and four Drugs Inspectors in the Mobile Squad, Madurai. The Intelligence Wing with a Mobile Squad is headed by a Deputy Director of

Drugs Control. There is a Legal Adviser to advise on handling of legal issues and six Drugs Inspectors as part of the Intelligence Wing.

10.10 The Director of Drugs Control is the controlling authority and licensing authority for grant and renewal of licenses for manufacture (for sale) of Allopathic, Homeopathic 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.

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 and Cosmetics for the purpose of test or analysis to ascertain its quality.

10.12 The manpower available in the Department is detailed in table below:

**Details of Manpower in Drugs Control
Administration**

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 with a Mobile Squad is functioning in the Directorate to attend the complaints relating to spurious drugs / cosmetics and investigates specific complaints in Chennai and in Southern Region respectively. It is headed by a Deputy Director of Drugs Control and it processes legal matters and undertakes special investigations including interstate investigations in association with the Drugs Control Department of other States.

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 Number of Licensed Premises

Sales Licences		Manufacturing Licences			Blood Banks	Blood Storage Centres
Retail Licences	Wholesale Licences	Allopathic Drug	Homeopathic Drug	Cosmetics		
37,093	14,894	670	08	149	293	509

10.16 Number of inspections conducted during 2016-17

Details	No. of Inspections
Sales Premises	60,796
Manufacturing Premises	1,077
Hospitals and Medical Stores	3,787
Blood Bank	671

10.17 Details of samples drawn, tested and reported as Not of Standard Quality Drugs during 2016-17

Total No. of samples drawn	9,561
No. of samples tested	9,859
No. of samples declared as Not of Standard Quality	392

10.18 No. of Sales Licences Suspended during 2016-17

No. of Retail Licence suspended	76
No. of Wholesale Licence suspended	29
Total No. of Licence suspended	105

10.19 Prosecution for certain contraventions under Drugs and Cosmetics Act, 1940 and Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954 during 2016-2017

Sl. No	Details	No. of cases
1.	For the manufacture of spurious drugs	6
2.	For the manufacture of Not of Standard quality drugs	80
3.	For the sale of drugs without supervision of Pharmacist	171
4.	For the sale of drugs without prescription of Registered Medical Practitioner	281
5.	For the stocking/sale of date expired drugs	4
6	Total number of retail and Wholesale licenses suspended	105
7	Contraventions under Drugs and Cosmetics Act 1940 and Rules 1945	370
8	Contraventions under DMR (OA Act) 1954	15

Special teams have been formed to carryout raids in various districts of Tamil Nadu 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 the dealers under the provisions of the Drugs and Cosmetics Act, 1940 and Rules, 1945.

10.20 Future Plan: Action will be taken to increase the number of samples taken from the Manufacturing Units and Hospitals for testing purpose and to increase the number of inspections to be carried out on Sales concerns, Manufacturing Units, Blood Banks, Approved Laboratories and the Government Hospitals and to carryout surprise inspection on the above premises. By the above methods, the movement of substandard drugs in the market and the function of blood bank will be monitored. Action will be taken for construction of own building for all zonal offices.

Chapter - 11

TAMIL NADU STATE HEALTH TRANSPORT DEPARTMENT

11.1 Tamil Nadu State Health Transport Department is vested with the exclusive responsibility of maintenance of all the vehicles attached to the various Directorates of Health and Family Welfare Department plying in the State. Though the origin of this department dates back to the year 1959 when six mobile repair units were launched for the maintenance of Health Department vehicles, it became a separate organization only in the year 1971 as per an all India pattern that was evolved by the Government of India. Initially this organization viz. State Health Transport Organization (SHTO) started functioning with one Central Workshop at Tiruchirappalli and three Regional Workshops at Chennai, Salem and Madurai. Later in the year 1981, to give impetus for the effective

maintenance of vehicles, this organization was made as a separate independent Directorate. Consequent to this move, the department has grown and developed in all aspects. Currently this department has a varied fleet of 2,733 vehicles under its maintenance.

11.2 Functions and Objectives:

- To maintain all the Health and Family Welfare Department Vehicles plying in the State in an effective and economical manner
- To repair and deliver all the vehicles admitted in the workshops at the earliest
- To provide complete solutions to all the problems encountered by the vehicle owning officers in the maintenance as well as in the operation of vehicles

- To provide professional assistance during the tender evaluation while new vehicles are purchased by different entities and while awarding customized fabrication work
- To test and appraise the fabrication work executed in vehicles like ambulances and hearse vehicles
- To recommend the right vehicle specifications to the needy Directorates during vehicle procurement and also to draft and propose designs for customizing special purpose vehicles as per the needs and requirements of end users
- To act as a repository of all data related to vehicles maintained
- To identify the aged and obsolete model vehicles that are un-economical for further retention and to liaise with the vehicle

owning Officers for its early condemnation and disposal

- To provide apprenticeship training every year to I.T.I. Certificate holders and to Engineering Diploma and Degree holders sponsored by the competent authorities

11.3 Activities of Regional / District and Mobile Workshops: The seven Regional Workshops located at Chennai, Salem, Madurai, Coimbatore, Trichy, Tirunelveli and Vellore maintain a fleet of around 400 vehicles each. The nine District Workshops at Chengalpattu, Dharmapuri, Virudhunagar, Udhamandalam, Erode, Thanjavur, Pudukottai, Nagercoil and Villupuram assist the Regional Workshops in maintaining all the vehicles in a proficient manner. Apart from Regional and 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.

11.4 HICORP: This department is successfully implementing HICORP, an acronym for Health department vehicles Information and Complaint Redressal Programme to provide a **single window** grievance redressal and information providing facility for the Medical Officers and Drivers. **This is a first of its kind 24x7 cost free facility run by a Vehicle Maintenance Government Department.** The concerned vehicle owning officers and drivers, when required, 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 significant initiative taken by this department for hassle free maintenance and maximum utilization of vehicles has**

been rated highly by the concerned stake holders.

11.5 Disposal of Condemned materials including vehicles by e-auction: This Department disposes all the condemned materials including condemned vehicles attached to various Directorates of Health and Family Welfare Department through e-auction conducted by Metal Scrap Trading Corporation Limited, a Government of India Enterprise. This move has not only resulted in effective participation of tenderers but also in quick disposal of materials by preventing cartel formation and collusive tendering.

11.6 Appraisal and Evaluation of Fabrication Work: This department regularly assists Government entities like Tamil Nadu Medical Services Corporation, Tamil Nadu Health Systems Project and 'State Health Society-Tamil Nadu' in appraising and

evaluating the fabrication work executed in vehicles like ambulances and hearse vehicles. Further, this department with the expertise it possesses in managing a large vehicle fleet also offers suggestions to the above entities to arrive at the right technical specification of vehicles that are to be newly procured and to customize them as per the needs and requirements of user departments.

11.7 Computerization of Activities:

With in-house resources, a vehicle management Database Programme has been developed and implemented in this department. Using this Programme, the activities carried out in all the workshops and in the technical sections at the Directorate have been computerized. Monthly evaluation of the performance of each workshop attached to this department is also done using this programme and ranks are awarded to each Workshop to encourage healthy competition.

11.8 Performance: Consequent to the computerized monitoring of workshop activities, the performance of various workshops attached to this department has drastically improved on various parameters. All steps have been taken to ensure that all vehicles admitted in the workshops are delivered at the earliest and no vehicle irrespective of the magnitude of repairs required is detained for more than 30 days. As a result of effective management, the percentage of fleet in operation is maintained at around 98% at any point of time.

Chapter - 12

HUMAN RESOURCES AND MEDICAL SERVICES RECRUITMENT BOARD

12.1 For any department to function effectively, high quality and adequate human resources are the most essential requirements. Tamil Nadu has sufficient number of medical institutions which produce qualified medicare personnel at all levels. 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 formed by the Government. MRB plays a very important role in contributing the human resources required for the effective functioning of the Health and Family Welfare Department comprising of more than ten Directorates under its control. Over a lakh posts in over 200 categories exist in various Government Medical Institutions throughout the State.

12.2 Formation of Medical Services Recruitment Board:

Medical Services Recruitment Board was formed in January, 2012 with an aim to carry out all direct recruitments in order to fill up vacancies in a speedy manner to various categories of posts including Medical, Para Medical and Non-Medical staff in the Health and Family welfare Department, to ensure timely provision of health care services to the public. The Medical Services Recruitment Board started functioning with effect from 06.02.2012. Before the formation of Medical Services Recruitment Board, the direct recruitment to the posts in Medical, Para Medical and Non-Medical categories were made through Tamil Nadu Public Service Commission and Employment Exchange by the various Directorates.

12.3 The Medical Services Recruitment Board conducts recruitment through a fair 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 and duly following the existing rules on communal reservation.

12.4 The Medical Services Recruitment Board has recruited the candidates for the following categories of post till 31.05.2017:

S. No	Name of the post	No. of candidates selected
01.	Assistant Surgeon (General)	6,131
02.	Assistant Surgeon (Speciality)	1,284
03.	Assistant Surgeon (Dental-General)	59
04.	Assistant Surgeon (Dental-Speciality)	67
05.	Pharmacist	651
06.	Nurse	9,190

07.	Village Health Nurse	1,317
08.	Lab Technician (Grade-III)	181
09.	Radiographer	194
10.	Medical Officers selected for TN Government Multi Super Speciality Hospital	72
11.	Fitter Grade-II	60
12.	Physiotherapist Grade-II	48
13.	ECG Technician	29
14.	Therapeutic Assistant	8
15.	EEG / EMG Technician	12
16.	Prosthetic Craftsman	33
17.	Audiometrician	14
18.	Occupational Therapist	18
19.	Therapeutic Assistant (Male) – ISM	57
20.	Therapeutic Assistant (Female) - ISM	49
21.	Assistant Surgeon (Special Qualifying Examination)	1,151
22.	Dark Room Assistant	227
	TOTAL	20,852

12.5 'Walk-in' Selection Process for Specialities: Medical Services Recruitment Board has so far recruited 1,284 Assistants

Surgeons (Speciality) through 'walk-in' selection process following the communal rotation and rule of reservation in force, in order to facilitate the competent candidates with PG Degree / PG Diploma to work in various Government Medical Institutions.

12.6 Out of 20,852 candidates recruited by Medical Services Recruitment Board since its inception, 4,974 candidates were recruited between 01.04.2016 and 31.03.2017. Further to say, the recruitment processes are under way for filling up 2,054 posts under the following 12 categories. Efforts are on to finalise the pending Court cases in four categories under para-medical and expedite the recruitment process.

S. No	Name of the post	No. of posts Notified
01.	Anaesthesia Technician	77
02.	Plaster Technician Grade-II	87

03.	Heart Lung Hypothermia Machine Technician	7
04.	Assistant Medical officer (Siddha / Homoeopathy / Ayurvedha)	106
05.	ECG Technician	9
06.	Physiotherapist Grade-II	63
07.	Radiographer	93
08.	Refractionist	14
09.	Pharmacist	333
10.	Lab Technician Grade-II	524
11.	Lab Technician Grade-III	710
12.	Assistant Medical Officer / Lecturer Grade-II (Yoga and Naturopathy)	31
	TOTAL	2,054

12.7 Medical Services Recruitment Board has also conducted a Special Qualifying Examination for the temporarily appointed Assistant Surgeons who are in service to regularise their services on 20.11.2016. Earlier such special qualifying examination was conducted by Tamil Nadu Public Service Commission. The Medical Services Recruitment Board is constantly striving to improve and strengthen the recruitment process

by reforming the procedures to make the process of recruitment more transparent and candidate-friendly. Its foremost aim is to achieve zero vacancy in various Government medical institutions by filling up the posts in a speedy manner.

Chapter - 13

STATE HEALTH SOCIETY

13.1 The State Health Society and District Health Societies have been constituted under the National Health Mission for implementation of various health programmes in the State. 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. Since 2015-16, the fund sharing pattern of this Mission is 60: 40 between the Central and State Government respectively. The successful implementation of various innovative initiatives of the State Government along with the programmes being implemented under the National Health Mission have resulted in the overall improvement of all health indicators in the State. Tamil Nadu has already achieved the targets set under United Nations

Millennium Development Goals 2015 and is well poised to achieve the targets and the measurable indicators well ahead of time, under the Sustainable Development Goals to be achieved by 2030.

13.2 National Health Mission – Vision 2023 and SDG Road Map for 2017-18: The National Health Mission envisages the concept of applying the health systems approach to strengthen the health care delivery in the State. The Mission embarking on a path of systems approach is trying to address the issues by creating necessary policy framework and programs taking into account of Global Disease Burden (GDB) targets set in Sustainable Development Goals (SDG) and Vision 2023. Considering the above said approach, the Mission is set to address some of the major areas in the year 2017-18 within the National Health Policy as listed below:

- i. Universal Health Coverage in primary care settings and extend it to all levels in phased manner.
- ii. Formulate State Trauma Care Policy
- iii. Formulate State Cardiac Care Policy
- iv. Formulate State Cancer Care Policy
- v. Formulate State Mental Health Policy
- vi. Formulate Program for STEMI care by creating a HUB and Spoke Model
- vii. Establishment of State and District NCD cells
- viii. Role out Revamped PICME for Eligible Couple Tracking
- ix. Implement Comprehensive Pain and Palliative care percolating to the field level

- x. Work towards Strengthening of District Hospitals by commencement of DNB Programme
- xi. Strive to achieve Indian Public Health Standards (IPHS) for infrastructure, equipment, laboratory and human resource at all levels of health care in a phased manner.

Tamil Nadu approach to achieving the Sustainable Development Goals

13.3 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) with 169 targets. The health targets per-se is likely to galvanize action in many programme areas. The SDGs also provide a new and exciting opportunity for

strengthening governance for health and interaction with policy processes in other sectors at Global level and increasingly at Regional and Country levels.

**SDG 3 targets and implementation
Strategies**

Sl. No.	SDG Goals	Implementation strategies in Tamil Nadu
1	By 2030, reduce the Global MMR to less than 70 per 1,00,000 live births	Provision of 24x7 delivery care services Promotion of Institutional deliveries Birth Attendance by skilled health professionals Dr.Muthulakshmi Reddy Maternity Benefit Scheme (MRMBS) 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

		<p>Karyakram (JSSK - Drugs/Diagnostics/Diet/ Drop back)</p> <p>Emergency Transport Services</p> <p>Maternal Anaemia Intervention (Blood Bank, Iron Sucrose)</p> <p>Chief Minister's Comprehensive Health Insurance Scheme (CMCHIS)</p> <p>Girl Child Protection Scheme (Social Welfare Department)</p> <p>Maternal Death Audit (State & District Level)</p> <p>Strengthening of District Hospitals by commencement of DNB programme</p>
2	<p>By 2030, put an end to the preventable deaths of newborns and children under five years of age, with all countries aiming to reduce neonatal mortality to at least as low</p>	<p>Provision of Resuscitation & Essential Newborn care services</p> <p>Facility based Newborn care</p> <p>Home based Newborn care</p> <p>Integrated Management of Neonatal and Childhood Illness (IMNCI) services</p> <p>Janani Sishu Suraksha Karyakram (JSSK)</p> <p>Neonatal Ambulances</p>

	as 12 per 1000 live births and under-five mortality to atleast as low as 25 per 1000 live births.	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)
3	End the epidemics of AIDS, Tuberculosis, Malaria and Neglected tropical diseases and combat Hepatitis, Water-borne diseases and other communicable	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

	diseases by 2030	<p>TB (XDR-TB) Management</p> <p>Implementation of National Vector Borne Disease Control Programme (NVBDCP) in co-ordination with DPH&PM and Local Bodies / Provision of Domestic Breeding Checkers (DBC's)</p> <p>Implementation of Integrated Disease Surveillance Programme (IDSP)</p> <p>Establishment of District Public Health Laboratories</p> <p>Strengthening of existing Laboratory services to IPHS standards</p>
4	By 2030, reduce by one third premature mortality from Non-communicable diseases through prevention and treatment and promote mental health and well-being.	<p>Implementation of Non-Communicable Diseases Control Programme (NCD)</p> <p>Establishment of NCD Clinics in all health facilities</p> <p>Coverage of NCD Complications under CMCHIS</p> <p>Implementation of National Mental Health Programme</p>

5	Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.	Establishment of De-addiction Centres Counseling services
6	By 2020, halve the number of Global deaths and injuries from Road Traffic Accidents.	Establishment of Trauma Care Centres in road accident prone areas Provision of '108' Emergency Transportation Services TN State Trauma Care Policy
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.	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

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.	Piloting of Universal Health Coverage (UHC) in 3 districts (1 Block each) Formation of Core Committee at State level for UHC services package. Implementation of the UHC commenced on 23 rd January, 2017
9	By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals, air/water/soil pollution and contamination.	Implementation of Bio-Medical Waste Management Rules, 2016 Implementation of Food Safety and Standards Act (FSSA)
10	Strengthen implementation of framework convention on Tobacco control.	Implementation of National Tobacco Control Programme (NTCP) Establishment of State and District Tobacco Control Cell

11	Provide access to medicines and vaccines for all; support Research and Development of vaccines and medicines for all.	Providing free drugs, vaccines and diagnostics in all Government Health facilities Providing financial support to King Institute of Preventive Medicine
12	Increase health financing and health workforce in developing countries	Provision of substantial increase in health budget over years by 10% Recruitment of health manpower through exclusive Medical Services Recruitment Board (MRB)
13	Strengthen capacity for early warning, risk reduction and management of health risks.	Implementation of Integrated Disease Surveillance Programme (IDSP) Provision of capacity building of health functionaries

As mentioned earlier in the introductory chapter, the Vision 2023 released by former Hon'ble Chief Minister has already set a higher benchmark, which the State is aiming in attaining and excelling the targets achieved by the developed countries by the year, 2023.

Maternal Health

13.4 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.

13.5 '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 with provision of quality maternal health care services as an important component within the RMNCH + A strategy in the State.

13.6 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 health institutions. About 4,13,747 mothers are benefitted under this scheme during the year 2016-17.

13.7 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 health 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 health institutions under JSSK scheme, it is expected that home deliveries may be reduced. Under this scheme, during the year 2016-17, 6,08,122 pregnant women have

been benefitted by getting free drugs, diet and consumables. Further, 2,65,816 pregnant women have been transferred from home to health facility (including inter facility transfer) and 1,77,977 delivered mothers have been dropped back from health facility to home.

13.8 Comprehensive Emergency Obstetrics and Neonatal Care Centres (CEmONC): In order to provide emergency and quality ante-natal care as well as to provide 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 24x7 to the mother and newborn.

13.9 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. The hiring incentive provided to specialists in Ramnathapuram, The Nilgiris, Nagapattinam districts and Hilly and Tribal areas has been doubled since August, 2016.

13.10 Control of Anaemia among Ante-natal 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 wellbeing. About, 4,47,049 pregnant mothers diagnosed

with maternal anaemia during the year 2016-17 have been given Injection Iron Sucrose.

13.11 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. 10,26,173 antenatal mothers have been screened and 12,132 antenatal mothers have been diagnosed as positive for Gestational Diabetes Mellitus during the year 2016-17.

13.12 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 12 new blood banks is under process. 3,38,507 units of blood from 89 Blood Banks and 24,617 units of blood from 287 Blood Storage Centres have been transfused during the year 2016-17.

13.13 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 CEmONC. These centres are being strengthened with additional inputs to provide Emergency Obstetric Care and Safe

Abortion Services, New Born Stabilization services, poison management etc.

13.14 Feeding and dietary charges: The antenatal mothers who come for antenatal checkup have 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, during the year 2016-17, 5,84,951 antenatal mothers and 1,40,097 delivered mothers have been provided with diet in the State who attended PHCs for check-up and delivery. Post Natal diet is also being provided to mothers delivered in secondary and tertiary care health institutions.

13.15 Life Saving Anaesthetic Skills (LSAS) / Emergency Obstetric Care (EmOC) training for Medical officers: In order to provide skilled man power, to ensure safe

confinement to antenatal mothers, 24 weeks intensive training programme is given to the PHC 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 are provided for observation of high risk mothers in the Medical College Hospitals. So far, 566 Medical Officers were trained in LSAS training and 61,257 caesarian sections and 2,66,167 procedures like family planning procedures have been conducted by the trained Doctors, since 2007. 130 Medical Officers have been trained in EmOC training and 7,263 caesarian sections and 23,945 procedures like family planning procedures have been conducted by the trained doctors since 2009.

13.16 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 to 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 Headquarters 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.

13.17 Interventions to reduce maternal deaths: The Government have taken the following interventions to address the above

issues, so as to decrease the Maternal Mortality Ratio.

13.17.1 Anaemia Control

- i. Annual deworming, Weekly Iron and Folic Acid Supplementation (WIFS) tablets for all adolescent girls to prevent anaemia, since they are the future mothers
- ii. Oral Iron and Folic Acid (IFA), Iron sucrose injections are provided at all PHCs
- iii. Blood transfusions for severely anaemic mothers through functional Blood Storage centres even at PHC level
- iv. Voluntary Blood donation camps are held in all blocks twice a year in all 385 blocks.
- v. Supplementary feeding through ICDS.

13.17.2 Hypertension complicating pregnancy:

- i. Early identification at sub centre level itself with high risk follow-up, prescription of

tablet-Labetalol to decrease Blood Pressure.

- ii. Standard Protocols to identify and treat hypertension during pregnancy through injection-Magnesium Sulphate is available even at PHC level
- iii. Functional 75 Obstetric ICUs with facilities to treat any complications arising due to hypertension complicating pregnancy.

13.17.3 Post-Partum Hemorrhage:

- i. Standard Protocols to identify and treat post-partum hemorrhage at PHC level itself through usage of Misoprostol tablets, anti-shock garments and early referral to secondary / tertiary institutions.
- ii. Blood Banks and Blood storage centres in all First Referral Units (FRUs) to treat such

mothers with PPH through specialized blood products like FFP, platelets, etc.

13.17.4 Sepsis:

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

13.17.5 Heart Disease complicating pregnancy:

- i. Early identification and corrective surgeries during school health visits /

adolescent period through RBSK programme

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

13.17.6 Maternal death audit:

- i. For better monitoring of MMR in all districts, community and facility based death audits is done by the health team under the Chairmanship of the District Collector every month.
- ii. A State level Video Conference by State Health Society is held every month by the

Mission Director, NHM to review maternal deaths.

13.18 Interventions to reduce Higher Order Birth (HOB): Higher Order Births contribute significantly to maternal deaths in the State. Hence, top 120 HOB blocks in 21 districts of Tamil Nadu has been identified to concentrate on better provision of Family Welfare Services. 1,32,428 uncovered mothers with 2 and above living children have been line listed and these mothers have been motivated for permanent sterilization and interval IUCD insertion. Till date, 15,637 mothers have been sterilized and 6,523 IUCD have been inserted. Detailed survey and monthly plan for each PHC has been developed and monthly performance being monitored at the State level. The services of SHGs, NGO and Line leaders of the concerned area are being utilized for Inter personnel Communication.

13.19 Pre – Conception and Pre – Natal Diagnostic Techniques (Prohibition Of Sex Selection) Act, 1994:

Generally, female sex ratio declines mainly due to female foeticide, infanticide and neglect of female child from birth. In order to prevent sex determination, to eradicate female foeticide and for maintaining the high level juvenile sex ratio (0-6 years) and male and female ratio, the Government of India has enacted the Pre – Conception and Pre – Natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994. Under the Act, 6,405 scan centres have been registered so far and cases have been filed against 114 scan centres for the violation of this Act. Out of 114 cases filed, judgments have been delivered in 87 cases and 27 cases are under trial. As a part of enforcing the Act, surprise checks of the scan centres and MTP centres is being conducted in all taluks and districts which are below the State average of juvenile sex ratio. The

Government of Tamil Nadu has conducted various IEC activities such as street plays, rallies, essay competitions and debate for creating awareness among the public about the PCPNDT Act, 1994 and women empowerment.

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

13.20.1 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 stabilization units have been established at FRUs and Level-II MCH centres to stabilize 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. 1,05,018 children have been admitted and treated in SNCUs in the year 2016-17. Establishment of 5 new SNCUs is under process. Regular follow up clinics are being conducted to review the newborn discharged from the SNCUs.

13.20.2 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.

13.21 Nutrition Rehabilitation centres: Two nutrition rehabilitation centres have been established as a pilot project each in Government 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. 336 children have been treated at these centres during the year 2016-17.

13.22 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 (MHT). GPS is being installed in all 770 vehicles of MHT.

13.23 District Early Intervention Centre (DEIC): 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 2016-17, 1.28 crore children have been screened and 11,49,533 children have been identified with defects. About 6,27,408 children have been referred by the MHT and provided treatment. Around, 88,750 children have been managed at DEIC and surgery done for 3,296 cases in 2016-17.

13.24 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. 182 Adolescent Friendly Health Clinics (AFHCs) have been established so far. 73,301 adolescents have received clinical services and 63,220 adolescents have received counseling services in these AFHCs.

13.25 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

13.26 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 antenatal / postnatal mother care, promotion of institutional delivery, motivation of eligible couples for male / female sterilization, home based newborn care, reporting of events, infant deaths and 1-5 year deaths, participation in Village Health and Nutrition Day meetings, Immunization activity, Vitamin A & Deworming, Care of TB cases, acting as DOTS provider, Care of Leprosy cases, surveillance and reporting of fever, ARI, diarrhea, jaundice etc.

13.27 Birth waiting room in 17 tribal PHCs:

In view of the fact that most of the tribal habitations are located in 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 foothills 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 have been provided for round

the clock care and services. 2,872 mothers have been provided with diet in these Birth Waiting Rooms in 2016-17.

13.28 Tribal Mobile outreach services:

20 Mobile Medical Units (MMUs) are being operated 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. 3,10,545 out-patients have been treated during the year 2016-17. GPS installation is being done in all the 20 MMUs this year.

13.29 Referral Services in Tribal Districts:

The State has a well-established emergency referral transport system established through TN-EMRI. 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 considering the issue of reaching the tribal hamlets due to the size of the regular ambulances and hilly terrains.

13.30 Tribal Counsellors: Tribal communities in general and primitive tribal groups in particular are compounded by lack of education / awareness, 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.

13.31 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. Till date 444 Primary health centres, 315 Upgraded primary health centres, 499 FRU buildings, 8 Centre of Excellence buildings and 46 buildings for the Regional Training schools have been supported by NHM.

13.32 Patient Welfare Society: Patient Welfare Societies have been constituted in all the PHCs, District Headquarters Hospitals and Taluk / Non-Taluk Hospitals and amount of Rs.1.75 lakh, Rs.10 lakh and Rs.5 lakh per year being provided respectively towards functioning of these societies. All the societies are registered and functioning effectively. These societies co-ordinate 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 NHM. 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.

13.33 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 established 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 is being used for improvement of the health and sanitation of the village. The Committee

members have already been given training regarding the village health activities.

13.34 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. Average of 40 camps are being conducted in a month by each Mobile Medical Unit. GPS is being installed in all 416 vehicles.

13.35 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 were 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. NHM is supporting 348 dental units in Government Hospitals and PHCs.

13.36 Oral Pre-Cancer Screening

Programme: A pilot program on “Oral Pre-Cancer Screening Programme” was launched in one block each in four districts (Dindigul, Vellore, Salem and Thoothukudi) with handheld device (TABLET) to identify patients with pre- cancer and cancerous lesions by door to door survey by the dental assistants in all adult persons of age of above 18 years especially in high risk group using tobacco products for early detection and intervention. The suspected lesions in mouth are photographed with handheld device using Oral Pre-Cancer Screening App and uploaded to be visualized by the Dental Surgeon before and after staining with 1% Toluidine Blue solution. The suspected cases are sent to Dental Surgeons in the upgraded PHC for biopsy. The patients are

referred to higher units for further management like surgery, chemotherapy, radiation and Palliative Services which is also covered under Chief Ministers Comprehensive Health Insurance. Around 25 households in each block will be screened each day, 6 days a week to cover entire population. The software is developed and maintained by National Informatics Centre. This programme is now been upscaled to 293 units in the State in the current year. Totally 23,76,067 have been screened, 10,566 identified as suspects and 199 were confirmed as cancer patients by punch biopsy and referred for further management.

13.37 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 retaining such status during subsequent assessments, would be incentivized. Quality assurance process has been implemented in all facilities in 31 districts during this year. The State level committee will monitor monthly all the aspects of the quality standards detailed below to improve the patient care and the hospital facilities:

- i. Quality Assurance Team at the facility level.
- ii. Internal Assessment.
- iii. Patient Satisfaction Survey.
- iv. Key Performance Indicators.
- v. Quality Policy at the facility.
- vi. Quality improvement methodologies to be followed.

- vii. Quality audits: prescription audit, nursing audit, medical audit, death audit.
- viii. Standard Operating Procedures.
- ix. External Quality assurance on Lab/Equipment.

A very clean supervisory system on quality at the hospital/facility level is being created in every hospital by the hospital head and monitored at the district level quality committee. For the year 2016-17, seven District Headquarters Hospitals have been awarded with State certification.

13.38 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 lakh), Government District Headquarters Hospital, Erode (2nd prize Rs.20 lakh) 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. For the year 2016-17, all Taluk / Non-Taluk Hospitals, CHCs and PHCs are included in Kayakalp Programme in addition to District Hospital. External assessment has been completed for Kayakalp Programme and the reports have been forwarded to Government of India for awards. Government Headquarters Hospital (GHQH), Padmanabapuram (1st prize Rs.50 lakh), Government Headquarters Hospital

(GHQH), Namakkal (2nd prize Rs.20 lakh), 15 Government Headquarters Hospitals (GHQHs) (Commendation Award Rs.3 lakh each), Sub-District Hospital (SDH), Hosur (1st prize Rs.15 lakh), Community Health Centre (CHC), Thirupoondi (2nd prize Rs.10 lakh), 16 SDH and 24 CHCs (Commendation award Rs.1 lakh each). 31 Primary Health Centres (1st prize Rs.2 lakh in each of 31 Districts) and 23 PHCs (Commendation award Rs.50,000 each) have achieved Kayakalp Awards.

National Urban Health Mission (NUHM)

13.39 The Government of India has formulated National Urban Health Mission in May, 2013 as a sub Mission to National Health Mission to effectively address the health concerns of the urban poor especially in slums and vulnerable areas by establishing 71 new Urban Primary Health Centres and strengthening the existing 349 Urban Health Centres (Total

420 UPHCs) in 12 Corporations including Chennai and 75 Municipalities with more than 50,000 population.

13.39.1 The Government of India has allotted (including State share) Rs.105.32 crore to Tamil Nadu for 2013-14, Rs.156.89 crore for 2014-15, Rs.186.65 crore for 2015-16 and Rs.114.80 crore for 2016-17. The sharing pattern of the fund under this project is 75:25 between the Government of India and the State Government respectively up to 2014-15. From the year 2015-16, the fund sharing pattern has been revised as 60:40.

13.39.2 Rashtriya Bal Swasthya Karyakram hitherto implemented in rural PHC is also extended as a new scheme under NUHM by providing 12 units for 5 other Corporations besides 15 units already approved for Greater Chennai Corporation in 2015-16.

13.39.3 10 Urban Mobile Medical Units has been approved in 2016-17 by Government of India under NUHM (5 Greater Chennai Corporation and 5 other Corporations) to cover the slum, migrant population and the workers of unorganized sector, etc., for which Rs.270 lakh was approved.

13.40 Development work under State Balanced Growth Fund (SBGF): Recognizing 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 is implementable in 105 identified 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 after ensuring not being duplicated in any other schemes.

New Initiatives in 2017-18

13.41 Formulating a State Cardiac Care Policy: This is being formulated with an objective of reducing 1/3rd premature deaths (<70 years) due to Cardiovascular diseases in Tamil Nadu, with specific focus on STEMI and aims to reduce the incidence, morbidity and mortality of cardiovascular diseases (CVD) by reducing CVD risk factors and their determinants, implementing standard prevention, screening and treatment protocols at

all levels of care and monitoring the trends of CVD and its risk factors. In addition to screening of children upto 18 years of age and screening offered under the ongoing Non Communicable diseases programme for those over 30 years, a population based screening is proposed in phased manner to cover the left out population between age group of 18 to 30 years. The expected outcome includes reduction in premature deaths due to CVD, reduction in incidence of CVD in Tamil Nadu, improved awareness on CVD risk factors in Tamil Nadu and thereby decreased smoking prevalence and improvement in quality of life among patients.

13.42 Develop a State Cancer Care Policy:

Tamil Nadu State Cancer Prevention and Control policy is being developed with specific focus on prevention, early detection, screening, treatment including high end facilities, follow up and palliative care. Proposed for implementation

over ten years period, it is envisaged that Tamil Nadu will have a functional system of cancer control with a network of equitably accessible 'State of Art' cancer treatment facilities which would reduce the cancer incidence, morbidity and mortality rates in relation to other States by 2030. Around 55,000 new cancer cases are identified every year in Tamil Nadu. It is higher among women (84 per one lakh) than men (65 per one lakh) in the age group of (35–64) years amounting to 1 in 13 people running a life time risk of developing cancer. As per Cancer Registry, high incidence of cancers is observed in Chennai, Kancheepuram, Thiruvallur, Cuddalore, Coimbatore and Kanyakumari districts. Tamil Nadu proposes to roll-out the policy to achieve 1/3rd reduction in premature deaths caused by cancers both in paediatric and adult population in Tamil Nadu by 2030. Specific focus will be on early detection and ensuring complete follow up

of those screened to complete the appropriate treatment course. The proposed policy would also include the cost-effective interventions to prevent, screen and treat, promote vaccination for HPV, Hepatitis B and C; treat Helicobacter Pylori; promote tobacco cessation policy and implement state level legislation on tobacco use and establish data management systems with quality checks. Screening and health promotion for most common cancers such as cancer of breast, cervix and mouth to be implemented in the population based screening starting from the sub-centres and those screened positive will be referred to district / medical college hospital for further investigations and treatment. The expected outcomes would include reduction in the number of new cases of cancer, decline in death rates from cancer, increase in number of people receiving effective and best treatment as per Standardized Treatment Protocols and improvement in quality of life of patients.

13.43 TN STEMI Program: ST Segment Elevation in Myocardial Infarction (STEMI), a grave type complication of Coronary Artery Disease (CAD) is a significant health care problem in India. A Cardiac Care Network (HUB and Spoke model) will be established in Tamil Nadu to ensure that all the patients in the cluster are able to access the 'State of Art' Cardiac care. It is based on the outcome of a pilot study made on STEMI system of care using Hub and Spoke model at 4 hospitals including Government Stanley Medical College and Hospital in 2013-15. The '108' Ambulance Service is used to transport the patient from home/spoke hospital and the hospitals are empanelled under CMCHIS with special STEMI packages. A STEMI treatment protocol has been put in place. The STEMI system of care involves combining the two strategies of Primary PCI and Pharmaco-invasive strategy. This model will strengthen the Cardiac Care Network which will

reduce the morbidity and mortality related to Myocardial Infarction in particular Segment Elevation by increasing access to quality treatment, especially in patients from rural areas. The 11 new Catheterization labs will be placed in Medical College Hospitals all over the State acting as Hubs which will function 24x7. Each hub hospital will be linked with 8 spoke hospitals that will act as Feeding hospitals where Pharmaco-invasive treatment using thrombolytic drug will be initiated and referred to the respective Hub hospital. A second pilot has been sanctioned by the Government to use Injection Reteplase, an advanced thrombolytic drug and the study has commenced with Government Salem Medical College Hospital as one of the HUB Hospital.

13.44 Revamped Pregnancy Infant Cohort Monitoring Software (PICME): The PICME software which is used to track the Eligible

Couple, Pregnant women and Children, has been now revamped and integrated with MRMB. A new software has been developed with many new features which are as follows:

- Provision to register antenatal mother through Common Service Centre / toll free number.
- Provision for entering the details of Eligible Couples Registration and updation by Village Health Nurse (VHN).
- Aadhar authentication for every pregnant mother is included to avoid duplication of beneficiary.
- Unique PICME number has been designed according to the Government of India Software "Integrated RCH Web Portal" so that the data could be transferred into Government of India Software seamlessly

and aligning with Government of India, is ensured.

- Under Immunization, the details of children up to 16 years age group can be entered. This ensures the tracking of child health.
- Whenever mother goes to native place for delivery, she has to re-register herself in that area which ensures that visitor mother also be tracked in the new software.
- Provision to linkage with CRS software ensures that even the private delivery also be tracked.
- SMS alert may be sent to the beneficiary regarding due of service delivery for mother and infants.

- SMS alert may be sent to the field health functionaries regarding due date for follow up for high risk mother / infants.
- As part of technology up-gradation, it is proposed to use the Tablet (hand held device) by the field health functionaries, so that real time data is obtained.

13.45 National Programme for Pain and

Palliative Care: The programme aims at ensuring availability and accessibility of pain relief and palliative care services to the needy patients and thereby enhancing their quality of life with positive influence on the course of illness. Implementation has been initiated in 8 district headquarters hospitals namely Cuddalore, Dindigul, Krishnagiri, Namakkal, Kovilpatti, Ramanathapuram, Thiruvallur and Tiruppur and in 2 Medical College Hospitals – Thiruvarur and Thiruvannamalai as Facility based service delivery i.e. out-patient

care, inpatient care, dispensing of essential medicines including opioids for pain relief, nursing care within the existing facilities by trained health staff. The programme will be extended to the entire State and the palliative care services will also be offered as Community based service delivery with trained palliative care workers at the block level. Home based care will be the corner stone of community based service delivery, reaching out to the patients at their home who cannot reach the health centres. The services at the block level includes, pain relief management, wound care including fungating ulcers, bed sores, bladder catheterization, lymphedema care and symptom management in cancer patients (dyspnea, nausea, vomiting, constipation etc.)

13.46 Indian Public Health Standards:

Indian Public Health Standards (IPHS) are a set of uniform standards envisaged to improve the

quality of health care delivery. In order to provide effective health care to the entire populace of the State, the IPHS for Sub-centres, Primary Health Centres (PHCs), Community Health Centres (CHCs), Taluk/Non-taluk and District Hospitals have been used as a reference point for planning the public health care infrastructure of the State. The IPHS guidelines not only act as a main drive for continuous quality improvement but also serving as the bench mark for assessing the functional status of health facilities. A gap analysis using IPHS guidelines for the infrastructure, equipment, laboratory and human resource has been done by NHM – Tamil Nadu and the identified gaps has been proposed under Programme implementation Plan of Tamil Nadu (PIP) 2017-18, to strengthen the hospitals across primary, secondary and tertiary care and provide maintain an acceptable standard of

quality of care to general public across the State.

13.47 Dialysis Programme: Strengthening of district hospitals has been a key priority under National Health Mission so that people can receive affordable multi-specialty care close to their place of stay. End Stage Renal Disease (ESRD) continues to be an emerging burden of Non Communicable Disease and dialysis is the first and only choice of treatment for ESRD patients, as the options of “Renal Transplant” warrants huge infrastructure and man power. Hence, dialysis treatment is being provided in all tertiary care teaching hospitals and secondary care institutions. NHM has supported facilities with 127 machines in addition to 211 machines procured from Government sources to these tertiary care teaching hospitals and secondary care institutions. About, 18,131 patients have undergone dialysis during the year 2016-17.

13.48 DNB Programme in district hospitals:

Diploma of National Board (DNB) is the title awarded by the National Board of Examinations (NBE), an autonomous institute of Government of India, to candidates who successfully complete their postgraduate or postdoctoral medical education under it. Starting of DNB courses in selected districts hospitals of the state could potentially be useful as this will help to get immediate specialists requirements and help to get long term specialists gap fulfillment in the secondary care hospitals. The state government has identified the district hospitals with minimum bed strength as per requirements of the NBE norms and made provisions for necessary infrastructure and facilities at identified district hospitals, as per requirements for the DNB programme. The state government has put up a proposal of request to NBE to start DNB programme in the specialties of General Medicine, General Surgery, Obstetrics &

Gynecology, Orthopedic Surgery, Ophthalmology, Paediatrics and Emergency Medicine as per prescribed proforma of application and got approval for 48 seats. DNB programme in District Hospitals will begin from 2017.

13.49 Conclusion: The activities and the programmes listed are only illustrative as the State Health Society performs a cross cutting role in the department and on its programmes, hinges the performance of State in various health indicators. Due to its cross cutting nature, certain new initiatives and regular activities have also been described in relevant chapters.

Chapter - 14

TAMIL NADU URBAN HEALTH CARE PROJECT

14.1 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.

14.2 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.

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 which the existing hospital

campus has been facing to improve the patient safety and effective hospital management based on a long term Master Plan.

- iii. The project intends to promote advanced Japanese medical technology such as hybrid operation theatre system, interventional radiology. 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.

Tamil Nadu Urban Health Care Project has an outlay of Rs.1,634 crore for implementation under the Japan International Co-operation Agency (JICA) assistance. The formal agreement for the project was signed by Government of India and JICA on 31st March, 2016. The Project

cost of Rs.1,634 crore includes JICA loan component of Rs.1,388 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 will be implemented over a period of seven years.

The project component includes-

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

14.3 Locations: The project will be implemented in 17 cities and cover 21 facilities. Under this project the Government Medical College Hospitals located at Madurai, Kilpauk at Chennai, Coimbatore, Salem, Vellore, Thanjavur, Tirunelveli, Pudukottai, Tiruchirapalli, Thoothukudi and Kanyakumari are included. Further, six district hospitals of Erode, Tiruppur, Cuddalore, Dindigul, Krishnagiri and Periyakulam and four secondary care hospitals at Avadi, Maniyanoor (to be established) at Salem, Velampalayam at Tiruppur and Kandiyaperi at Tirunelveli will also be strengthened.

14.4 Details of the Activities

14.4.1 Upgrading Tertiary Hospitals (Infrastructure Rs.356.50 crore and equipment Rs.497.41 crore): With regard to infrastructure, it is proposed to provide Advanced Operation Theatre(OT) Centre containing OT Centre for General, OT Centre for

Vascular, OT Centre for Cardiothoracic, OT Centre for Plastic, OT Centre for Urology, OT Centre for ENT, Paediatric Surgery & Hybrid OTs, IVR rooms, Pre-operative Care unit, Sick Intensive Care Unit, Post Anaesthesia Care Unit, Imaging Centre, Auditorium, Haemodialysis centre etc. Government Medical College Hospitals at Madurai, Kilpauk and Coimbatore at a cost of Rs.356.50 crore and with regard to equipment, it is proposed to provide equipment for Advanced Operation theatre centre containing OT centre with Operation light, Anaesthesia work station, C-arm machine, X-ray machine, Endoscopes, Hybrid OT equipment, IVR system, Angiography system, Imaging Centre with MRI, CT scan, Training Centre with ICU simulators, Haemodialysis centre with Haemodialysis units etc., at Government Rajaji Hospital, Madurai, Kilpauk Medical College Hospital and Coimbatore Medical College Hospital at a cost of Rs.497.41 crore.

14.4.2 Strengthening Referral Hospitals (Equipment - Rs.153.60 crore): It is proposed to provide equipment for Radiology in Imaging Department with CT, Mammography etc., and Endoscopy centre with Gastro-fiberscope, Duodenoscopes, Haemodialysis centre with Haemodialysis units, Reverse Osmosis System Operating Microscope, Ultrasound scan, C-arm machine, X-ray machine, etc., in eight Government Medical College Hospitals at Salem, Vellore, Thanjavur, Tirunelveli, Tiruchirapalli, Pudukkotai, Thoothukudi and Nagercoil and also it is proposed to provide equipment for six District Head Quarters Hospitals at Erode, Tiruppur, Cuddalore, Dindigul, Krishnagiri and Periyakulam, such as CT scan, Digital Fluoroscopy, Endoscopy, Gastro-fiberscope for Imaging department, Haemodialysis units, RO system for Haemodialysis centre and C-arm, X-ray unit, Anaesthesia work station etc., for

Operation theatre at a total cost of Rs.153.60 crore.

14.4.3 Strengthening Secondary Care Hospitals-(Infrastructure Rs.80 crore and equipment Rs.51.43 crore): With regard to infrastructure, it is proposed to provide In-patient wards, OT block, Out-patient department for General Medicine and Surgery, Obstetrics and Gynaecology, Paediatrics, Ear, Nose, Throat and Ophthalmology, Comprehensive Emergency Obstetric and Newborn Care centre (CEmONC) and Sick Newborn Care Unit (SNCU), Casualty Department, Haemodialysis centre, Imaging Department at a cost of Rs.80 crore and with regard to equipment, it is proposed to provide Beds, Infusion stands in in-patient wards, Operation tables Anaesthesia machine in Operation theatre, Treatment table film viewer, dental units in Outpatient department, Cardiotocography, Radiant warmer, Ventilator in SNCU and CEmONC, Emergency carts,

defibrillator in casualty department, digital X-ray machine, Computed Radiography in Imaging Department at a cost of Rs.51.43 crore in the Secondary Care Hospitals at Avadi in Chennai, Maniyanoor in Salem, Velampalayam in Tiruppur and Kandiyaperi in Tirunelveli.

14.4.4 Strengthening hospital management

– (Rs.20 crore): It is proposed to give training on hospital management, medical equipment and Non Communicable Diseases (NCD) and trauma care management at a cost of Rs.20 crore.

14.4.5 Strengthening primary health care-

(Rs.10.90 crore): It is proposed to establish model skills lab for NCD at a cost of Rs.10.90 crore at Regional Training Centres at Chennai and Madurai and training on NCD will be given to primary health care personnel.

14.4.6 Administrative cost, contingency, consultancy, taxes, etc: Apart from this, a

provision of Rs.70.4 crore is allocated for administrative cost and Rs.393 crore for physical contingency, consultancy, taxes etc.

14.5 Implementation of this project is expected to improve the urban health care by providing 'State of Art' facility for referral care thereby ensuring that the improvement already being done in the Urban Health Care as part of National Health Mission and as part of our State initiatives gets fillip through these focused strengthening to infrastructure and equipment in these facilities.

Chapter - 15

COMPREHENSIVE EMERGENCY OBSTETRIC AND NEWBORN CARE CENTRES

15.1 Comprehensive Emergency Obstetric and New Born Care (**CEmONC**) centres were started from the year, 2005 to provide Comprehensive Emergency Obstetric and New Born Care services. Currently, 126 centres are functioning in various Government Hospitals in the State. Among these 126 CEmONC centres, 22 are functioning in Medical Colleges and the remaining 104 are functioning in the District / Taluk / Non-Taluk Hospitals under the Directorate of Medical and Rural Health Services. These hospitals are referral hospitals providing 24 hours services for the expectant mothers and newborns. All the CEmONC centres are provided with additional specialists and staff nurses and modern equipments like Boyle's apparatus, Ultrasound scan, Operation tables, Anaesthesia

machines, Generators etc. For better blood transfusion, all Medical College hospitals are provided with blood component separators. The operation theatres in CEmONC Centres are provided with central oxygen supply and shadow less lamp equivalent to world class standards.

CEmONC Performance – From 2011 -12 to 2016-17

Details	2011 -12	2012-13	2013-14	2014-15	2015-16	2016-17
Total maternal admission	2,27,353	2,51,236	2,79,605	2,79,571	4,59,587	5,73,954
Deliveries	1,41,132	1,57,693	1,69,980	1,70,879	2,78,124	3,21,622
LSCS	62,233	73,504	87,768	90,113	1,45,351	1,68,282
Blood trans- fusion for OG cases	27,806	38,897	48,232	52,083	1,22,273	1,23,981
Scan for OG Cases	1,44,623	2,13,992	2,77,956	3,02,545	4,93,013	5,30,476
Neonatal admissions	1,41,890	1,24,454	1,16,641	1,03,344	1,40,525	1,28,085

Since 2015-16, data of 22 CEmONCs in tertiary care hospitals is also included in the above table.

Chapter - 16

HOSPITAL MANAGEMENT INFORMATION SYSTEMS AND OTHER E-GOVERNANCE INITIATIVES

Health Management Information System (HMIS)

16.1 HMIS is a judicious combination of Information Technology (IT) and Management Systems, to deliver improvised evidence based health care to the needy and poor patients utilizing the services of public hospitals which would act as tool for decision support system. Web based application envisaged by the Health and Family Welfare Department of Government of Tamil Nadu through Tamil Nadu Health Systems Project as an initiative for IT enablement of health sector. The four major components of HMIS includes, Hospital Management System (HMS) for capturing real

time patient data, Management Information System (MIS) for a reporting system pertaining to administrative modules including clinical, finance and HR etc., College Management System (CMS) for covering the academic activities of the Government Medical Colleges and paramedical institutions under Director of Medical Education (DME) and University Automation System (UAS) for the academic and office activities of Tamil Nadu Dr. MGR Medical University. Currently, HMIS has been implemented in a phased manner across 287 Secondary Care Hospitals, 20 Government Medical College Hospitals and allied health institutions, 1,747 Primary Health Centres and Tamil Nadu Dr. MGR Medical University at a total budget of Rs.216 crore. The application software has been developed in compliance of major requisites of EHR standards of Government of India. At present, HMS application has been implemented for out-patient flow in Government

Medical College Hospitals and allied health institutions and the same will be extended to in-patient flow in a phased manner. As a part of pilot implementation of Inpatient flow Department of Cardiology and Department of Radiology have been identified in Rajiv Gandhi Government General Hospital and training for the end users to implement Picture Archiving and Communication System (PACS), Lab Information System (LIS) has been provided. Government Medical College, Pudukottai and ESI Medical College Hospital, Coimbatore, Tamil Nadu Government Multi-Super Specialty Hospital, Omandhurar Estate, Chennai, newly upgraded 33 Secondary Care Hospitals and 10 dispensaries requires infrastructure for HMIS implementation, which will be taken up in this financial year.

16.2 The proposed future initiatives includes

- i. implementation of HMS in all PHCs,

- ii. linking of Unique ID PIN with Aadhaar,
- iii. Integrating HMS and Tamil Nadu Medical Services Corporation (TNMSC) for fully automated online indent system,
- iv. Collection of Private Medical institutions' clinical data through MIS for comprehensive health data analysis in SHDRC,
- v. Out-patient Appointment system for specialty investigations like CT-Scan, MRI-Scan, Angiography etc., in Tertiary care institutions,
- vi. Incorporation of features for adhering to the requisites for Electronic Health Record (EHR) standards – International Statistical Classification of Diseases (ICD)-10, Health Level (HL)-7, Digital Imaging on Communications in Medicine (DICOM), International Standards ASTM.

16.3 New IT Initiatives

- a. **HRMIS:** Human Resource Management and Information System is an electronic version of service records of all contractual and regular staff funded under NHM. The software is under process and will be rolled out in 2017-18.

- b. **Equipment Monitoring Information System:** Functional maintenance of equipment with minimal down-time has been a challenge especially in remote locations. Life saving equipment lies unrepaired for small reasons which could have been rectified then and there with minimum interventions. Hence, it has been planned to have a comprehensive equipment monitoring system to keep the medical devices fully functional at various levels of healthcare facilities to ensure uninterrupted delivery of essential health

care. The inventory management is being maintained through HMIS software with a separate module for regular updating of equipment by the pharmacist in the '*Equipment-Inventory System*' as and when the hospitals receive the supply at their facilities from various sources including TNMSC.

- c. **Public Finance Management System (PFMS):** The Public Financial Management System (PFMS) is a web-based application for payment, accounting and reconciliation of Government transactions and integrates various existing standalone systems. This initiative is being implemented in National Health Mission with integration of banks and Aadhaar cards of the beneficiaries. The various modules available in PFMS are Expenditure module, Direct Benefit Transfer module and Transfer to lower agencies module. The aim of this

application is to dispense with Cheque, ECS and other mode of disbursement of funds. Details of fund releases and expenditure are captured and thereby facilitating centrally monitoring mechanism.

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. 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.

17.2 Objective: 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, Institute of Social Obstetrics and Government Kasturba Gandhi Hospital for Women and Children and General Hospital, 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 of the following officials:

- 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 specialty 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 one of these samples is chosen at random. Its 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 12 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.50.00 lakh per annum in the previous three years. In case of failure, the drug will be re-tested 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 29 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 ICT 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 medicines 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 Headquarters Hospital has as many as ten. The hospitals can send their indents online, whereas CHCs and some 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 fixing 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 warehouse 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:

TNMSC is making effective use of the Information Technology in inventory management including placing of orders, receipt

of supplies, distribution to medical institutions, making payment to the suppliers etc. All the drug warehouses are connected online with the TNMSC's Head Office and various operations are monitored online. The passbooks and bin cards in the warehouses are also computerized which minimizes the human interface and improves efficiency. It is also maintaining a user friendly website www.tnmsc.com. All the drug suppliers are provided with User ID and password to view their transactions in a very transparent way including the status of supply received, quality test passed and the status of processing of bills from their places instead of visiting the Corporation. It is in continuous process of utilizing the technology and very soon the real time SMS to all the vendors, shareholders, etc., about the tenders and other related matters, linking of all CT Scan Centres with Head Office for better close monitoring of performance of the Centres, installing of CCTV at the premises of

warehouses and CT/MRI Centres, to have close watch on the premises will be put into place.

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. TNMSC is procuring and supplying drugs to the Lakshadweep Administration (Department of Health Services).

17.12 'Vardah Cyclone' Relief: During the very severe cyclonic storm 'Vardah', the most intense to have hit the Tamil Nadu capital Chennai, in December, 2016, the Corporation rose upto the occasion to procure health goods needed such as bleaching powder, sodium hypochloride, lizol, etc., to prevent any possible epidemic outbreak.

OTHER SERVICE ACTIVITIES

17.13 CT Scan Centres: The Corporation is maintaining 70 CT Scanners at 58 Centres (three 128 slice, two 64 slice, three 16 slice, thirty five 4 slice 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 slice CT scanners and three nos. 128 slice 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 Slice	Government General Hospital, Chennai
2	64 Slice	Government Rajaji Hospital, Madurai
3	128 Slice	Government Mohan Kumaramangalam Medical College Hospital, Salem
4	128 Slice	Tamil Nadu Government Multi Super Specialty Hospital at Omandurar Government Estate, Chennai
5	128 Slice	Government Stanley Hospital, Chennai

17.14 MRI Scan Centres: 18 MRI Scanners at 17 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 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	Government Thanjavur Medical College Hospital, Thanjavur
9	Government Mahatma Gandhi Memorial Hospital, Trichy
10	Government Tirunelveli Medical College Hospital, Tirunelveli
11	Government Vellore Medical College Hospital, Vellore
12	Government Chengalpattu Medical College Hospital, Chengalpattu
13	Government Villupuram Medical College Hospital, Villupuram
14	Government Dharmapuri Medical College Hospital, Dharmapuri

Sl.No	Place
15	Tamil Nadu Government Multi Super Specialty Hospital, Omandurar Estate, Chennai
16	Institute of Child Health & Government Hospital for Children Chennai
17	Government Royapettah Hospital, Chennai

Further, one 0.35 Tesla MRI Scanner under Public Private Partnership (PPP) mode is in operation at Government District Headquarters Hospital, Udthagamandalam. In addition, four more Nos. of 1.5 Tesla MRI under PPP mode are established in the Government Medical College Hospitals at Kanyakumari, Thoothukudi, Sivagangai and Theni. One more 1.5 Tesla MRI Scanner under PPP mode is being established in the Government Medical College Hospital at Tiruvarur.

17.15 Lithotripsy Centres: Three Lithotripsy Centres at Government General Hospital, Chennai, Government Rajaji Hospital, Madurai

and Government Medical College Hospital, Coimbatore 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, one more Lithotripsy Machine at Government Medical College Hospital, Tirunelveli is 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:

- The ISO 9001 certified G.I.Bleed and Hepato Biliary Centre in the Surgical and Gastroentrology Department in Government Stanley Hospital, Chennai, now upgraded as Liver Transplant Centre
- Pay ward (Maternity) in IOG, Egmore, Chennai, established in February, 2003

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

17.17 Warehouses: During the year, four new Drug Warehouses were added to the existing 25 Drug Warehouses. The Corporation is now having scientifically designed and constructed 29 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. By such establishment of warehouses, each district will have one warehouse thereby ensuring easy availability of drugs to the institutions at a short notice.

CHAPTER - 18

TAMIL NADU STATE AIDS CONTROL SOCIETY

18.1 Tamil Nadu constituted the State AIDS Control Society on 22.04.1994 to prevent, control the spread of HIV and provide care, support and treatment to the HIV infected / affected persons. Tamil Nadu State AIDS Control Society (TANSACS) implements HIV/AIDS control programme in the State under the guidelines of National AIDS Control Organisation (NACO). The Society works with the aim of achieving the goal "Getting to Zero—No new infection, No HIV/AIDS related deaths, No HIV/AIDS related Stigma and Discrimination" for which number of State level initiatives are undertaken. Tamil Nadu has been successful in bringing down 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.

18.2 National AIDS Control Programme Phase-IV (NACP-IV) is being implemented with effect from April, 2012, jointly funded by Government of India, World Bank and Global fund. The objectives of the NACP-IV are as follows:

- To Reduce New infections by 50% (2007 Baseline of NACP III)
- Comprehensive Care, Support and Treatment to all persons living with HIV/AIDS.

18.3 The basic components of TANSACS activities are as follows:-

1. Prevention of New Infections
2. Information, Education and Communication
3. Care, Support and Treatment
4. Strategic Information Management System

18.4 Prevention of New Infections

The TANSACS is implementing the following the schemes to prevent new infections:

18.4.1 Integrated Counseling and Testing Centres (ICTCs): HIV Counseling and testing services is the gate way to HIV prevention, treatment, care and other support services. In Tamil Nadu there are 781 Stand Alone ICTCs branded as “Nambikkai Maiyam” providing Counseling and testing services. In these centres consent, confidentiality, counseling, correctness of test results and connection to appropriate services are ensured. The ICTCs are located in Government Medical College Hospitals, Government District Head Quarters Hospitals, Government Hospitals and Government Primary Health Centres. In addition to this, 16 Mobile ICTCs are deployed to reach the unreached and provide services at their door steps. There are 1,102 Facility Integrated Counseling and Testing

Centres (FICTCs) functioning in the Additional Primary Health Centres, where ICTC service is provided through 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. During the year 2016-17 TANSACS has expanded the HIV counseling and testing services to 49 Designated Microscopic Centres (TB) and 216 Additional Primary Health Centres. Currently 2,375 HIV counseling and testing service facilities are functioning in Tamil Nadu. During 2016-17, 30,81,765 General Clients and 9,68,248 Antenatal Mothers were tested for HIV. In the year 2017-18, HIV Screening facility will be expanded to all the remaining health facilities upto additional Primary Health Centre level and other Government health facilities.

18.4.2 Prevention of Parent to Child Transmission (PPTCT):

The objective of the Prevention of Parent to Child Transmission (PPTCT) program is to ensure prevention and care intervention among antenatal women and their family which is one of the routes of HIV transmission from an infected pregnant mother to her newborn. In India, the PPTCT programme started with administering single dose Nevirapine in 2001-02 (tablet for mother and syrup for babies). In September, 2012, under PPTCT the regimen was modified from single dose Nevirapine to multi drug regimen. 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 is geared up to achieve the goal of 'zero' transmission of HIV from infected mother to the new born.

18.4.3 Sexually Transmitted Infection / Reproductive Tract Infection (STI/RTI) Services

18.4.3.1 Designated STI/RTI Clinics: There are 157 Designated STI/RTI Clinics (DSRC) “**Sugavazhvu Maiyam**” functioning in Government Medical College Hospitals, Government Headquarters Hospitals and Government Hospitals at taluk level. In these facilities, counseling, screening and treatment services for STI / RTI are provided for all clients. All antenatal mothers are screened for Syphilis at the time of registration in order to achieve elimination of congenital syphilis. High Risk Groups (HRGs) are provided with Regular Medical Checkup (RMC) once in three months and syphilis testing done once in six months.

18.4.3.2 Regional and State Reference Centres: Regional Laboratory has been established in Institute of Venereology, Madras

Medical College, Chennai and the four State Reference Centres (SRCs) have been established at Medical Colleges in Madurai, Coimbatore, Tirunelveli and Chennai (Stanley Medical College) for technical support, Operational Research and training in STI/RTI programme.

18.4.4 Targeted Intervention: The Targeted Intervention (TI) is being implemented through the Non-Governmental Organizations (NGOs) / Community Based Organizations (CBOs), in order to bring behavioral 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 Transgenders (TG) in the State, who are at risk of contracting HIV infections. Currently, 72 NGOs/CBOs are functioning and services are provided to 74,856 HRG Population (FSW-42,012, MSM-29,220, TG-3,112, IDU-512), Migrants-35,137 and Truckers-42,487.

Employer Led Model (ELM) to reach out to industry workers and unorganized sectors is implemented in 34 industries. This programme is implemented by the industries / corporate for their own employees.

18.4.5 Link Workers Scheme: Link Workers Scheme (LWS) is implemented in 15 districts to provide prevention to care continuum of services to rural based High Risk Groups, vulnerable population and bridge population (Truckers / Migrants). 100 villages based on the epidemiological profile are selected in each of these 15 districts and HIV related services are provided to 8,696 HRG Population through this scheme (FSW-7,818, MSM-872, TG-6), Migrants-32,936 and Truckers-9,952.

18.4.6 Condom Promotion: As usage of condoms is the most effective means for prevention of HIV and STI infection among high risk and general population, free condoms are

provided to people through STI clinics, ICTC, ART Centres and other outreach programmes implemented through NGOs/CBOs through Targeted Interventions and Link Workers Scheme. During the year 2016-17, 2.02 crore pieces of free condoms were distributed. In addition to routine distribution in service facilities, a special drive of condom distribution was carried out at Vikravandi and Omalur toll plaza in National Highways where 73,000 condoms were distributed.

18.4.7 Blood Safety: In Tamil Nadu, 293 Blood Banks (State Government – 89, Central Government – 8 and Private – 196), 138 Blood Components Separation Units (Government - 31 and Private - 107) and 509 Blood Storage Centres (Government - 387 and Private - 122) 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 units are received from voluntary blood donors. During the year 2016-17, totally 3,49,566 units of blood were collected through 4,090 voluntary blood donation camps conducted by the Government Blood Banks across the State. The patients who are in need of blood and blood components are provided with blood at free of cost in all the Government Hospitals. The use of blood components are being encouraged for optimal utility. The stock of whole blood units and blood components in the Government Blood Banks is made available in the public website **www.tngovbloodbank.in** and updated daily. The collection and therapeutic utilization of blood and blood components in the Government Blood Banks is monitored on daily basis with the Supply Chain Management Software (SCM).

18.5 Information, Education and Communication (IEC): Information, Education

and Communication (IEC) is one of the components of National AIDS Control Programme (NACP). Under this component, TANSACS creates awareness and provides information through Website, Mobile App, FM Radio, Television, Newspapers, Folk Programme, Hoardings, Wall Painting, Posters, Pamphlets and Outdoor events. The mobile IEC vans are used during awareness campaigns for promotion of IEC, demand generation for testing services among general population. Active IEC campaigns have resulted in reduction of stigma and discrimination attached to HIV/AIDS.

18.5.1 Greater Involvement for the People Living with HIV/AIDS (GIPA): People Living with HIV / AIDS (PLHIV) and Community Based Organisations (CBOs) are implementing this project and programmes at the district level and the same is being monitored by them, to ensure service facilities at the grass root level. They are

part of planning programmes related to IEC and CST activities. They are also members in Tamil Nadu State AIDS Control Society (TANSACS) Governing/Executive and Grievances Redressal Committees.

18.5.2 Hello + Helpline 1800 419 1800: To enlighten the callers with required information about HIV/AIDS, STI and also to clear the myths, misconception and doubts about HIV/AIDS this service is operated by informing the callers about the service centres available in the respective districts.

18.5.3 Legal Aid Clinic (LAC): In association with Tamil Nadu State Legal Services Authority (TNSLSA) this is implemented and has already been established in 16 districts to address the legal and non-legal issues of People Living with HIV/AIDS (PLHIVs) and High Risk Groups (HRGs).

18.5.4 Red Ribbon Club (RRC): As a pioneer in the Nation, TANSACS established Red Ribbon Clubs (RRC) in the year, 2005 to create awareness and to raise the risk perception and behavioral changes among the youths. There are 2,021 Red Ribbon Clubs functioning in Arts and Science, Polytechnic, Engineering, Medical, B.Ed colleges and Teacher Training Institutions in the State. Through Red Ribbon Clubs (RRC), a special initiative is implemented for enrolling new Blood Donors in order to create comprehensive single point Voluntary Blood Donor Registry and strengthen the Voluntary Blood Donation activity. In addition to the existing donors, more than 3,20,000 new donors have been enrolled.

18.5.5 Life Skill Education Programme in Schools (LSEP): This programme aims to provide information on Life Skills and knowledge on prevention of HIV/AIDS among the 9th and

11th Students in Tamil Nadu. It is implemented in 9,580 schools through State Council of Educational Research and Training (SCERT).

18.5.6 Intervention among Self Help Group

on HIV and AIDS: This intervention has been jointly implemented in 21 districts through Tamil Nadu State AIDS Control Society (TANSACS) and Tamil Nadu Corporation for Development of Women (TNCDW) with a view to raise awareness on HIV/AIDS and related issues among the Self Help Groups (SHG). So far, one lakh SHGs have been covered involving more than 21 lakh women.

18.6 Care, Support and Treatment:

Government is committed to provision of life-long Care, Support and Treatment to people detected as HIV positive at ICTC through the ART centres. 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 & linkage services are also rendered through ART centres. Currently, 1,04,115 PLHIVs are taking regular treatment through 55 ART centres. In addition, there are 174 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.

18.7 Strategic Information and Management System (SIMS): It is a web-based Integrated Monitoring and Evaluation Service for monitoring and taking corrective steps to streamline the HIV/AIDS programme.

All the units of TANSACS report through this system.

18.8 Other activities

18.8.1 HIV Sentinel Surveillance: HIV Sentinel Surveillance (HSS) are being conducted in the Country once in two years to study the disease prevalence among pregnant women and High Risk Groups (HRGs). In Tamil Nadu for the year 2016-17, 71 ANC sites and 44 HRG sites have been selected by random sampling and this survey has been carried out from 1st February, 2017 to 30th April, 2017. District AIDS Prevention and Control Unit (DAPCU) are district level units to monitor, supervise and coordinate with other district departments related to HIV/AIDS programme. As of now, there are 29 DAPCUs and three Non DAPCU functioning in Tamil Nadu. Out of 29 DAPCUs, 27 are being supported by NACO. DAPCUs were established at

Ariyalur and Tiruppur Districts with the support of State Government.

18.8.2 Integrating Social Benefits: The Government of Tamil Nadu has established a trust 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.1,000/- is being provided under the 'Honorable Chief Minister's Uzhavar Pathukappu Thittam' to the individuals who are affected by TB, HIV/AIDS and other vulnerable diseases holding farmers card. Nearly 8,486 PLHIVs, both men and women are benefited 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 attend 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.

Chapter - 19

TAMIL NADU STATE BLINDNESS CONTROL SOCIETY

19.1 The Government of India, in order to reduce the prevalence of preventable blindness from 1.4% to 0.3% among population, launched the National Programme for Control of Blindness (NPCB) in the year, 1976 as a 100% centrally sponsored programme. The implementation of the said programme was subsequently decentralized in 1994-95 with formation of District Blindness Control Society in each district of the Country. In Tamil Nadu, Tamil Nadu State Blindness Control Society (TNSBCS) was formed on 01.04.1996 as a separate entity to give thrust to the goal by planning, execution and monitoring at the district level.

19.2 The TNSBCS is a registered body and is headed by a senior ophthalmologist as Project

Director who is also the State Programme Officer NPCB. The TNSBCS is represented by the District Blindness Control Society (DBCS) in districts of Tamil Nadu, where the Collector of the District is the Chair person and the programme is executed by District Project Manager (DPM), a senior ophthalmologist from the District Head Quarters Hospital. The TNSBCS has been brought under the overall control of Medical Officer of the State Health Society since 01.04.2007 and is a part of Non-Communicable Diseases Programme.

19.3 The cataract being the main reason for avoidable blindness, accounts for more than 60% of blindness. Under NPCB, the cataract operations are done at free of cost both in Government Hospitals and Private Hospitals and a grant-in-aid of Rs.1,000/- per operation is allowed to the NGOs.

19.4 The development of strong eye-care facility supported by well-trained doctors is the

necessity to fight the avoidable blindness. Therefore, districts are being chosen every year to build a dedicated eye ward, at a cost of Rupees One crore and there are 64 such facilities across the State. Recently, a dedicated eye ward has been sanctioned to the Government Hospital, Vaniyambadi in Vellore district. Frequent training to ophthalmic surgeons in various sub- specialties are also given under the scheme at various centres well established both in Government and NGO sectors using latest techniques.

19.5 The achievements in the year 2016-17:

- 4,03,645 persons were operated for cataract
- A pilot project under assistance of Queen Elizabeth trust and IIPH Hyderabad to screen for Diabetic Retinopathy eye

ailment due to diabetic has been initiated at the CHC level in Tirunelveli District

- A project to screen for Retinopathy of prematurity eye ailment in new born children has been commenced in 34 Special New Born Care Units (SNCUs)
- The awareness on eye donation and opportunity to get treatment for corneal diseases has been enhanced among the public
- New eye banks have been started and functioning in Thanjavur and Tiruchirapalli
- Tamil Nadu stands first in Eye Donation in India

19.6 The plans for this year 2017-18:

- Diversify to diagnosis and treat for ailment's other than cataract which include Glaucoma, Retina diseases, etc
- Enhancing infrastructure in Regional Institute of Ophthalmology and Government Ophthalmic Hospital on par with All India Institute of Medical Science Centre
- Strengthening of 8 Medical Colleges with equipments
- Continuing cataract operations both in Government and NGO sector, with Grants In Aid from Government of India along with State contribution
- Strengthening of Eye banks across the State for more utilization of donated cornea

Chapter - 20

REVISED NATIONAL TUBERCULOSIS CONTROL PROGRAMME

20.1 The Revised National Tuberculosis Control Programme (RNTCP) is implemented throughout the State of Tamil Nadu from the year, 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 (6-8months). The Programmatic Management of Drug Resistant TB (**PMDT**) implemented in the State during the year, 2009 also aims at early diagnosis of Drug TB resistance TB cases and treating them with DOTS plus regimen for 24-36 months. With the programme now in its second phase, the aims are to consolidate the gains made till date, widen the services both in terms of activities and access and to sustain the achievements to achieve ultimate

objective of TB control Programme in the country – ‘Elimination of TB’.

The components of new Stop TB Strategy which are incorporated in the second phase of RNTCP 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. Also employing ICT based technology to improve treatment adherence
- Address TB-HIV, MDR-TB and other challenges, by scaling up TB-HIV joint activities, DOTS plus and other relevant approaches and implementing the ‘3-I’ strategy throughout the State

- 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 (STCI) Standard for TB care in India by all health providers
- 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 technologies and vaccines. Encouraging Operational Research through State Task

Force to identify new initiatives to improve Programme performance

20.2 The Objectives of the current Programme are:

- To achieve 90% notification rate of all TB cases
- To achieve 90% success rate for all new and 85% for all retreatment cases
- To achieve decreased morbidity and mortality of all HIV-TB cases
- To improve the treatment outcome of TB care in private sector

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

- **State and District Infrastructure:** In Tamil Nadu, at State TB Cell (**STC**) and

State TB Demonstration and Training Centre (**STDC**) are functioning. State TB Officer and Director for State TB Demonstration Training Centre are in place. 23 categories of contractual staff are also posted in these 2 centres. The State Drug Store (**SDS**) and Intermediate Reference Laboratory (**IRL**) are functioning under STDC. District TB Officers (**DTO**) posted in each district are in charge of the Programme

- **TB Units:** There are 461 **TB Units**. One TB Unit is formed for every 1.5 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 829 Designated Microscopy Centre (DMC) in the State. One Designated Microscopy Centre (DMC) is available for every one lakh population such that there are two to three DMCs functioning in each TB Unit. Each Microscopy Centre has one RNTCP trained Laboratory Technician (LT) from the Health system and each laboratory is monitored for quality assurance by a Senior TB Laboratory Supervisor – (STLS)

- **Drugs:** The required Anti - TB drugs are supplied 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) in

Tamil Nadu situated at Chennai and Tiruchirapalli. These State Drug Stores in turn distribute drugs to the other districts drug stores in District TB Centres

- **Monitoring, Notification regarding number of cases diagnosed, number of cases treated:** Web based, case based entry of all Patients registered are 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. Public health action is taken for those cases notified which requires support. So far 10,967 (as on 31.03.2017) private health facilities got registered in **NIKSHAY**.

No. of TB cases through NIKSHAY NOTIFICATION:

2013	2560
2014	4804
2015	5747
2016	12345
2017	3815
Total	29271 (as on 31.03.2017)

20.4 Achievements under RNTCP Programme:

Program Indicators							
Year	% Out Patients examined	Annualized total case Detection per lakh	Annualized Detection rate / new Sputum+ve per lakh	Ratio of new Sputum+ve:Sputum-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%	85%
2016	2.1	105	50	2.7:1	90%	83%	89%
2017	2.1	105	50	3:1	90%	84%	90% *

(*as on 31.03.2017)

20.5 Programmatic Management of Drug Resistant TB(PMDT):

Specialized Laboratory Diagnosis Services:

- **Solid Culture (LJ) test-** is available at Intermediate Reference Laboratory (**IRL**), Chetpet-Chennai, Puducherry and Madurai and also at Trichy Medical College and CMC Hospital, Vellore.
- **Liquid Culture test (MGIT)** - is available at Intermediate Reference Laboratory (**IRL**), Chetpet-Chennai, Puducherry and IRL Madurai.
- **Line Probe Assay (LPA)** is available at IRL Chetpet-Chennai, Puducherry and IRL Madurai.
- **CBNAAT (Gene Expert)** 33 machines are available in the State and all the Districts

are having except The Nilgiris and Thoothukudi.

- **NIRT Chennai** is supporting the Programme and they have all the above four diagnostic facilities

Specialized Treatment Services: DOTS plus for MDR and XDR TB

- **DRTB Centres** or DOTS plus sites.
- Regional Nodal Centres for treatment of Drug resistant TB cases are established at Kancheepuram(GHTM), Vellore, Madurai, Tirunelveli, Thanjavur, Coimbatore and Chennai, where treatment for drug resistant TB cases are initiated and then continued at the concerned PHI (Peripheral Health Institution) in the Districts, where the patient is residing.

PMDT SERVICES – MDR TB –YEAR 2017 (from January to March)		
No. Screened for MDR TB	No. Diagnosed *	No. Put on Treatment
23,284	348	276

* 30 cases diagnosed at CMC Vellore are notified

PMDT SERVICES – XDR TB –YEAR 2017 (from January to March)		
No. Screened for XDR TB	No. Diagnosed	No. Put on Treatment
472	8	8

20.6 Bedaquiline - the New TB Drugs (for MDR and XDR TB Patients):

The GOI introduced a new TB drug namely Bedaquiline for MDR and XDR TB patients at six centres in India. GHTM Tambaram in Tamil Nadu is one among them and our State is the first in the country to cover the entire State, so that the benefit of Bedaquiline drug is available for all the eligible cases in the State. Till date in

Tamil Nadu 62 eligible patients are taking Bedaquiline drug.

20.7 TB – HIV Services: '3-I' project is completely implemented in Tamil Nadu and all the presumptive TB Suspects and registered TB patients are being 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 CPT (Cotrimoxazole Prophylaxis Treatment). 'ICT based 99 DOTS' has been implemented in all the 53 ART centres in Tamil Nadu for better treatment adherence of all HIV-TB Co-infected cases. All suspects from ART centres are tested by CBNAAT for diagnosis of TB. All the PLHIV cases are given INH tablets as prophylaxis to reduce TB disease.

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
2016	80049	4269	4392	4335
2017	20090	1020	1067	1057 (as on 31.3.2017)

20.8 Paediatric Services (Diagnosis and Chemoprophylaxis): Tablet Isoniazid is being given for 6 months to all children (under 6 years) who are contacts of all microbiologically positive patients. Dispersible tablets for Paediatric cases, depending on their weight bands are also available in all Government Hospitals.

20.9 Newer initiatives: As the incident cases in Tamil Nadu is also showing a steady decrease, we are also planning to initiate End TB Strategy in low Prevalent Districts like The Nilgiris, Dindigul – (Perumal Malai TU) and Theni. The Intensive case finding strategy will be initiated in high prevalent districts like Chennai, Kancheepuram and Tiruvallur initially and in all the Districts in the State in July, 2017. All efforts are being undertaken to improve the involvement of Private Sector in the Programme and it has shown positive results. MDR treatment initiation shall be decentralized to District level in the near future. ICT (Information Communication Technology) based technology like 99 dots is being used in all districts to monitor the treatment adherence of TB-HIV Co-infected cases. This will be extended to all patients once the FDC (daily treatment) is implemented. Treatment from Intermittent regimen to daily regimen will be implemented

from 1st of July for all registered cases. 'ZERO' TB Project, a project by Stop TB Partnership is planned for Chennai Corporation.

Chapter - 21

NATIONAL MENTAL HEALTH PROGRAMME

21.1 The National Mental Health Programme was initiated by the Government of India to integrate Mental Health with other Health services at the field level.

21.2 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 services, advising the State Government on all matters relating to mental health and advocating for integration of mental health in general health care and in all social development sectors. The authority has a tremendous responsibility to create greater awareness about the services in this sector and is striving to enhance the role of government in integrating mental health hospitals/units, private organizations and the society at large, thereby taking care of the mentally ill patients. After the enactment of Mental Health Act, the Board of Visitors and guidelines of State Mental Health Authority are strictly followed. With the help of Medical Officers of the Hospitals, the other services such as Gynaecology, ENT and Dentistry related facilities are also made available. Since the last few decades, Psychiatrists and Psychiatric social

workers are working in full strength towards rehabilitation and counselling. Over a period of last few years there is a revamp in the living condition of the inmates.

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

- Government General Hospital, Chennai
- Government Kilpauk Medical College Hospital, Chennai
- Government Stanley Hospital, Chennai
- Chengalpattu Medical College Hospital, Chengalpattu

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

21.4 To address the need for qualified human resources in this sector: Under the

National Mental Health Programme action is being taken to start new course in Psychiatry, Clinical Psychology, Psychiatric social work and Psychiatric Nursing in the Madurai Medical College, Madurai and Coimbatore Medical College, Coimbatore.

21.5 District Mental Health Programme: The District Mental Health Programme was implemented as pilot programme in Tiruchirapalli District for treating the mentally ill persons living in villages. Subsequently this programme has been extended to the following district in phased manner as indicated below:

Sl. No	Name of the Districts	Year of Implementation
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

The Government of India has now approved for extending the District Mental Programme to the remaining seven districts of Ariyalur, Nilgiris, Thanjavur, Vellore, Krishnagiri, Salem and Coimbatore and the programme will commence in these districts very shortly. With this implementation, all the people in Tamil Nadu will be getting services for all mental illness under the District Mental Health Programme.

21.6 Facilities offering Mental Health

Services: As already mentioned, 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 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.

21.7 Recent approaches to mental health:

The main focus of the recent approach to mental health has been to reduce the stigma. The aim

also is to provide the care within the premises of general health care system and not apart from it as the main focus is to reduce the stigma. Simultaneously effort is being made to ensure that the identified patients get the mental health care throughout their life span. The Community based rehabilitation of mentally ill persons and the example of the success achieved by the Dawa and Dua programme in Erwadi is a pointer to the fact that both the traditional approach and treatment approach can be linked to alleviate the sufferings.

21.8 Role of NGOs: NGOs have been involved in disseminating the knowledge on early diagnosis and prompt community support toward mental illness. They are also actively encouraged to be part of the efforts in provision of health in form of targeted interventions, training of staff for addressing Mental health, identification of persons and linking them to

nearest treatment centre at the Government level are some of the initiatives where they have partnered Government.

21.9 Focus on Depression-Let us talk: As part of World Health Day theme for this year, a year long initiative to focus on the challenges of depression has been undertaken as mandated by the World Health Organisation. As per the National Mental Health Survey Report (2015-16) in India, the depression prevalence rate was 2.7% while in Tamil Nadu it was 4.5%. Our State has also been taking all steps to create awareness and using the international focus on depression as an opportunity to make people come out and talk about it and address the issue and where needed extend all treatment facilities.

21.10 Conclusion: The Government continue with its recent approach as part of the National programme and simultaneously encourage the local initiatives both by the State Government

and the Non Governmental organisations involved in such efforts and focus on reducing the stigma and encourage community level care and quick reintegration of the patients.

Chapter - 22

COMMUNICABLE DISEASES

22.1 Communicable diseases can be classified into two - vaccine preventable and those without a vaccine. 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 has been 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.

22.2 Vaccine Preventable Diseases: Vaccine Preventable Diseases (VPDs) namely diphtheria, pertussis, tetanus, poliomyelitis, tuberculosis, hepatitis B, haemophilus influenza B, polio, measles and rubella are covered under the Universal Immunization programme. With an objective to eliminate Measles and Rubella, a massive vaccination campaign was conducted in Tamil Nadu during February and March, 2017 and 1.7 crore children in the age group of 9 months to 15 years were vaccinated with Measles-Rubella vaccine.

Immunization Programme

22.3 All pregnant women and their newborns need to be protected against Vaccine Preventable Diseases. Immunization programme aims to reduce mortality and morbidity due to Vaccine Preventable Diseases (VPDs), particularly for children. Tamil Nadu started the immunization programme against six vaccine

preventable diseases in 1978. In order to strengthen the programme further Universal Immunization Programme 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. The State has consistently reported coverage of over 95%. The coverage with respect to BCG, Oral Polio Vaccine, Pentavalent and Measles are 91%, 95%, 95% and 87% respectively during 2016-17. On 06.02.2017 administration of Measles-Rubella Vaccine was started. The remaining children due for measles were administered with MR Vaccine for 2016-17. Because of this consistent immunization for more than two decades, vaccine preventable diseases like neo-natal and maternal tetanus, diphtheria and whooping cough have disappeared from the State. Polio free status is

maintained for the past thirteen years. There has also been a significant reduction in measles cases.

Pulse Polio Immunization (PPI)

22.4 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 2017, two rounds of pulse polio immunization campaigns have been conducted on 02.04.2017 and 30.04.2017. The State is polio free since 2004. World Health Organisation certified the eradication of Polio virus type-2 signifying a great leap in eradication of poliomyelitis. Consequently instead of trivalent OPV the State has introduced bivalent OPV. In addition injectable polio vaccine is added in the immunization schedule.

Japanese Encephalitis Vaccination

22.5 Japanese Encephalitis (JE) Vaccination programme is being implemented in identified endemic districts namely Cuddalore, Villupuram, Virudhunagar, Madurai, Thiruvarur, Tiruchirapalli, Perambalur, Ariyalur, Thanjavur, Tiruvannamalai, Pudukottai, Karur and Thiruvallur to prevent Japanese Encephalitis.

Mission Indradhanush

22.6 The Ministry of Health and Family Welfare (MoHFW) Government of India, launched Mission Indradhanush in December, 2014 as a special drive to vaccinate all unvaccinated and partially vaccinated children below two years and pregnant women under Universal Immunization Programme. The Mission focuses on interventions to improve full immunization coverage for children in India from 65% in 2014 to more than 90% by 2020. The

Government of India have identified 201 high focus districts across the country that have unvaccinated or partially vaccinated children. In Tamil Nadu, Mission Indradhanush has been implemented in three phases as detailed below:

Phase I

In Tamil Nadu, 8 districts namely Coimbatore, Kancheepuram, Madurai, Tiruchirapalli, Tirunelveli, Tiruvallur, Vellore and Virudhunagar were identified and covered.

Phase II

Mission Indradhanush programme was conducted from October, 2015 to January, 2016 in 19 districts namely Ariyalur, Chennai, Coimbatore, Cuddalore, Dharmapuri, Dindigul, Kanyakumari, Nagapattinam, Perambalur, Pudukottai, Salem, Sivaganga, Thanjavur, Thiruvarur, Tirunelveli, Tiruvannamalai, Tuticorin, Villupuram and Virudhunagar.

Phase III

Mission Indradhanush programme was conducted from April, 2016 to July, 2016 in Coimbatore district only. In addition, Erode, Karur, Namakkal, Nilgiris, Tiruppur Districts and hilly areas of all Districts and slum areas of all Corporations, have been covered by the State. Recently left out areas namely Ramanathapuram, Paramakudi, Theni and Krishnagiri were identified and four rounds were completed.

Introduction of Measles-Rubella Vaccine

22.7 As per the National Technical Advisory Group on Immunization (NTAGI) recommendation, MR vaccination campaign has been conducted during the month of February, 2017 targeting all children aged 9 completed months to <15 years with a simultaneous switch from measles to MR vaccine in the National

Immunization Schedule once the campaign is completed. When rubella infection occurs during early pregnancy which leads to Congenital Rubella Syndrome (CRS) i.e., congenital cataract, congenital glaucoma, congenital deafness, congenital cardiac defects and microcephaly. There is no specific treatment for rubella and the disease can be prevented only through immunization. Measles–Rubella vaccination was done from 6th February, 2017. In the campaign, all children in the target age group are vaccinated irrespective of previous immunization status or history of measles/rubella disease. MR vaccine is a safe vaccine.

National Vector Borne Disease Control Programme and Epidemic Control Activities

22.8 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

22.9 Though Tamil Nadu has been able to keep Dengue, a viral disease with four serotypes and spread by Aedes mosquito which breeds in clean water, under control yet constant surveillance and preventive measures are needed as the disease 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 30 Sentinel Surveillance

Centres including Medical College Hospitals, Zonal Entomological Teams, Institute of Vector Control and Zoonosis, Hosur and District Headquarters 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 there are over 90 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, where fresh water can stagnate, 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. Daily surveillance is carried out and the disease is now fully under control.

Chikungunya

22.10 Chikungunya is also a viral disease spread by *Aedes* mosquitoes. There is a decline in Chikungunya cases due to the control measures taken by the Government. The prevention and control measures against Chikungunya are carried out in an integrated manner with the Dengue control measures.

Zika Virus

22.11 Zika Virus Disease (ZVD) is again a mosquito-borne (*Aedes*) viral disease caused by Zika virus (ZIKV). It presents as mild fever, rash (mostly maculopapular), headaches, arthralgia, myalgia, asthenia and non-purulent conjunctivitis, occurring about two to seven days after the bite of the infected mosquito. One out of five people may develop symptoms, but in those who are affected, the disease is usually mild and may last between two and seven days.

Its clinical manifestation is often similar to dengue, also spread by the same vector. In Tamil Nadu, no persons are affected by Zika Virus and all travellers from the affected country are monitored. Airports are kept free of Aedes mosquitoes.

Malaria

22.12 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. 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 for the last year was 4,341. In the current year (up to 14.05.2017), 964 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.

Japanese Encephalitis

22.13 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 Culex vishnui 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.

22.14 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

22.15 Acute Encephalitis Syndrome (AES) Surveillance is being carried out in District Headquarters Hospitals, Medical College Hospitals and major private hospitals. During 2015, 847 cases were reported without any fatality. In 2016, 859 cases with 2 deaths and

during the current year (upto 14.05.2017), 445 cases were reported without any fatality. Under this programme, Paediatric Intensive Care Units (PICU) are being strengthened in Medical College Hospitals in Villupuram, Madurai, Thanjavur, Tiruvarur and District Head Quarters Hospital in Karur. Physical Medicine and Rehabilitation Department (PMRD) is being established at Government Rajaji 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 Pediatric 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

22.16 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. 25,176 Lymphatic filariasis cases have been recorded in this State. Morbidity management kits are also issued to these patients for foot care. Since most of the Filaria endemic districts have reported less than 1% Micro Filaria Rate, Transmission Assessment Survey had been completed in all the 20 Filaria endemic districts. Government is providing financial assistance to the Grade IV Filaria patients at the rate of Rs.1,000/- per month. 5,654 patients have been benefitted by this scheme.

Multi-Dimensional approach to mosquito borne diseases control

22.17 The mosquito borne diseases have become a global challenge even in western and developed countries, South East Asian nations and countries across the continents. The

following steps have been taken to prevent and control spread of such diseases.

- 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 equipments 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 Nila Vembu, Malai Vembu 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.

Leptospirosis

22.18 Leptospirosis is an important public health problem associated with significant morbidity and sometimes deaths also. It is a

serious zoonotic disease which requires timely diagnosis, treatment and control measures. A State Level Reference Laboratory is functioning at State Headquarters to provide laboratory confirmation and training. 1,216 cases were recorded during 2016. During the current year, 313 cases are reported (upto 14.05.2017).

A H1N1 Disease (Swine Flu)

22.19 Swine Flu is one of the types of Influenza fever. 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 AH1N1 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. This year saw an upsurge in

all the southern states including Tamil Nadu. Preventive steps taken by the State Government are listed in brief below:

- **Awareness Campaign:** Intensive awareness and screening camps were conducted in all public gathering places like major railway stations, District Headquarter Bus stands, Pilgrim centres, State Borders, Domestic terminal at Chennai Airport, all Medical College Hospitals, all District Headquarter Hospitals, all Block Level Hospitals
- **Medicines:** The State have stocked 16 lakh Capsules of Oseltamivir, 47 thousand bottles of Oseltamivir syrup, 58 thousand N95 masks and 15 lakh triple layer masks for management of Swine flu in Tamil Nadu. The drugs are also made freely available to private sector wherever needed

- **Vaccines:** As per the guidance of the experts from the Ministry of Health and Family Welfare and the current accepted protocols, vaccines have been given to the hospital workers, doctors, nurses and Para-medical staff. In 2016-17, 4,03,000 doses of swine flu vaccines have been purchased through TNMSC Ltd., to vaccinate the health functionaries who are involved in the Swine flu treatment
- **Personal Protective Equipment (PPE):** 13,108 PPE Kits were made available in all the HUDs to protect the Health Workers, who are involved in the Swine flu treatment in the Hospitals
- **Laboratory Investigation:** Tamil Nadu Government approved seven Government laboratories and 13 private laboratories for testing Swine Flu cases. These approved laboratories have adequate stock of lab reagents

- **Training:** Training was conducted to the Government and Private Practitioners on the treatment protocol as per the WHO Guidelines for handling the Swine Flu cases. Swine Flu confirmed cases are identified and educated to get treatment in initial stage at the nearby Government Hospitals and Primary Health Centres
- State and District level Meetings are held when incidence are seen

Epidemic Control Activities at the district level

22.20 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

same 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.

22.21 The State level epidemic monitoring committee and the Public health disease surveillance unit, 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 regular cleaning of water tanks, testing samples, preventing sewage

contamination and 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, 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 Programme (IDSP)

22.22 Integrated Disease Surveillance Programme (IDSP) was launched as a Project with World Bank assistance in November, 2004 to detect and respond to disease outbreaks

quickly. The project was further extended up to March, 2012. Currently, IDSP is implemented as a programme by NHM with Government of India support. The important achievements of IDSP are,

- Surveillance units established in the State / District level are reporting to the Central Surveillance Unit (CSU) functioning in the National Centre for Disease Control, New Delhi
- Training of State / District Surveillance Teams and Rapid Response Teams (RRT), Block Health Team (BHT) have been completed
- IT network connecting all the sites in States / District headquarters and premier institutions has been established for data entry, training, weekly video conferencing and outbreak discussion

- Weekly disease surveillance data on epidemic prone communicable diseases are collected from reporting units such as Health Sub Centres (HSCs), Primary Health Centres (PHCs), Community Health Centres (CHCs), Hospitals including Government and Private Sector Hospitals and Medical Colleges. The data are collected on 'S' syndromic; 'P' probable and 'L' laboratory formats using standard case definitions. Presently, more than 90% districts report such weekly data through e-mail / portal (www.idsp.nic.in). The weekly data are analysed at State Surveillance Unit (SSU) and District Surveillance Unit (DSU) for disease trends. Early Warning Signal (EWS) is generated whenever there is rising trend of illnesses or any clustering of cases from Government and Private Institutions. EWS is sent to the periphery for the early

intervention and control of any eventual outbreak

- The outbreaks are notified immediately to the Public Health System

District Public Health Laboratories (DPHL) under IDSP

22.23 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 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.

Role of the District Public Health Laboratory

- Establish a system of specimen collection, transportation and investigation to enable outbreaks in the district to be investigated and confirmed rapidly
- Monitor any clustering of cases from laboratory data received from Government and Private Institutions to detect Early Warning Signals (EWS) of impending epidemics and provide information to the District Surveillance Unit (DSU) at the earliest

- Implement the Bio-Medical Waste Management protocol in all the health institutions
- Ensure Quality Assurance in laboratory services with Standard Operating Procedures (SOPs) and effective implementation of Internal and External Quality Assurance Scheme (EQAS)
- Training, technical support, supervision and monitoring of peripheral laboratories functioning in Primary Health Centres (PHCs) and Government Hospitals
- Operation Theatre Swab (OT Swab) Analysis for the prevention and control of hospital acquired infections
- Bacteriological analysis of drinking water to prevent Acute Diarrhoeal Diseases

DPHLs Performance

22.24 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 DPHLs. In 2016, a total of 70,068 tests have been performed in the DPHLs, showing a 33% increased sample load when compared to the previous year.

Laboratory Confirmation of Outbreaks

22.25 The role of DPHLs in the laboratory confirmation of outbreaks of communicable diseases has also been steadily improved from 6.4% in 2013 to 33.8% in the year, 2015. In the year, 2016, 56.1% of the outbreaks of the epidemic prone communicable diseases have been confirmed by DPHLs network under IDSP.

Human Resource

22.26 One Microbiologist, One Laboratory Technician and One laboratory Attendant have been appointed in the District Public Health Laboratories (DPHL) and necessary training have also been imparted to carry out the routine laboratory investigations specified under IDSP.

International Health Regulations (2005)

22.27 The IHR (2005) aim 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 International Health Regulations (2005) or "IHR (2005)" is an international law which helps countries work together to save lives and livelihoods caused by the international spread of diseases and other health risk and came into effect since 15th June, 2007 and are binding on 194 countries across the Globe, covering all WHO Member States / Countries including India. 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.

Specific Diseases under the IHR (2005)

22.28 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 which functions on Tuesday and Friday and another at Port Health Organization, Chennai which 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 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 of 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, 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 CMWSSB also independently do such testing at their levels also.

Epidemic Information Cell

22.32 This cell is used as the contact point for public and stakeholders to interact and register issues. The phone numbers are 044-24350496, 044-24334811 and 9444340496. Functions of the cell are -

- i. 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.
- ii. The information collected from the 42 HUDs about Cholera, Fever etc., are communicated (through email, Phone and SMS) to concerned Deputy Director of Health Services to monitor and review the public health measures against the spread of diseases.

- iii. Health related issues during natural disasters such as earth quake, flood and cyclone are also communicated through this cell.

One Health Initiative

22.33 Tamil Nadu is the first State in India which has started adopting 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 gradually be expanded to research to supplement the efforts in respective fields.

Research and Development

22.34 Directorate of Public Health and Preventive Medicine have made many research initiatives in improving Health care delivery system. Tamil Nadu state pioneered many

activities including administration of iron sucrose, Introduction of vaccines like Japanese encephalitis, Pentavalent, PICME, etc. These pioneering activities were subsequently adopted as National policy and implemented throughout the country. As the continuation of research and development activities, Tamil 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 TANII, developing Real time Communicable Disease Surveillance for 12 Corporations at a total cost of Rs.2.98 crore is being developed.

Disaster mitigation and management

22.35 Ensuring adequate shelter, water, sanitation and food and providing basic health care are the most effective means of protecting the health of those affected by natural or manmade disasters. A systematic approach to

the control of communicable diseases is a key component of humanitarian response and is crucial to protect the health of affected populations. Over the years large number of doctors, health inspectors and other staff are well trained in disaster management. Hospital on Wheels functioning on fixed tour plan covering 40 villages per month can now be deployed in large numbers during disasters very effectively as done successfully during the recent floods and cyclone in Chennai and adjoining districts.

Chapter - 23

NON-COMMUNICABLE DISEASE PREVENTION, CONTROL AND TREATMENT

23.1 Non-Communicable Diseases (NCD) are emerging as leading cause of death and the mortality and morbidity due to these diseases are significant both in urban and rural areas. Therefore our State is implementing the Non-Communicable Diseases Intervention Programme. This is the first of its kind to be implemented on a very large scale in India. It is under implementation in all the 32 districts in Tamil Nadu involving 2,363 Government health facilities across Primary / Secondary / Tertiary and municipal levels of health care. Under the programme, screening, treatment and follow-up services are provided for Hypertension, Diabetes Mellitus, Cervical and Breast cancer to all individuals aged 30 years and above who are 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 program also focuses on 'Life Style Modification' by providing counselling to individuals detected with the disease. While until 15 September, 2015 this was part of the World Bank supported Tamil Nadu Health Systems Project (TNHSP) now after the closure of TNHSP, this programme is 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 activity wise details and the performance is given below.

23.2 Cardio Vascular Diseases (CVD) Prevention and Control Programme: From July, 2012 to March, 2017, NCD screening was carried out for 4,12,54,261 individuals aged

30 years and above. Out of those people 38,59,179 were found to be positive for hypertension. 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 Headquarter Hospitals and two Medical College Hospitals. This would be subsequently expanded to other districts in the State.

23.3 Prevention and Treatment of Diabetes

Mellitus: 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 March, 2017, out of 3,33,00,977 individuals screened for Diabetes Mellitus, 14,15,288 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 March, 2017, NCD Screening was carried out for 1,39,91,751 women for Cervical cancer, of whom 4,34,096 were detected positive in the screening test. They have been referred to tertiary care 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 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 March, 2017, 1,71,52,133 women were screened for breast cancer, of whom 1,93,194 women were found positive and referred to higher institutions for further evaluation and follow-up as per protocol.

23.6 State Level and Regional Cancer

Centres: Adyar Cancer Institute in Chennai is functioning as State level higher treatment centre for Cancer and that institute is being upgraded as "Centre of Excellence" at a cost of Rs.120 crore. Besides this, 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. Government Thanjavur Medical College Hospital, Thanjavur

23.7 NCD Mobile App: As an initiative to improve the quality in health care in the State, an user-friendly mobile app is being developed for capturing NCD data related to screening, treatment and follow-up of hypertension, diabetes mellitus, cervical and breast cancer. It is proposed to provide a hand-held device for capturing the NCD data related to screening, treatment and follow up of the 4 diseases by NCD Nurses who are the end-users positioned in all the health facilities in Tamil Nadu. The application is being developed under the technical guidance of National Informatics Centre (NIC), Chennai. This NCD mobile app will be piloted in few districts before up-scaling to all other districts.

23.8 A 'Population (or) Community based screening for NCDs' has been proposed to be implemented in two cities (Tirunelveli and Coimbatore) and five districts listed

covering 1,203 Health Sub-Centres (HSCs) during 2017-18. The five districts include, (i) Perambalur, (ii) Krishnagiri, (iii) Pudukottai, (iv) Karur and (v) Ramanathapuram. Upon implementation of the population based screening in the above districts and cities, the programme will be up-scaled to other districts in a phased manner. A new field worker termed as 'Women Health Volunteer' would be appointed at one per sub centre for the community. The proposed budget for this initiative is 14.66 crore.

Chapter - 24

OTHER NATIONAL PROGRAMMES

National Tobacco Control Programme

24.1 The National Tobacco Control Programme is implemented in Tamil Nadu since 2003. The State Tobacco Control Cell is functioning under the Director of Public Health and Preventive Medicine since 2007. The District Tobacco Control Cell has been formed in all the districts and functioning under supervision of the Deputy Director of Health Services. Under National Tobacco Control Program, two districts namely Villupuram and Kancheepuram have been selected as pilot districts for implementation of the District Tobacco Control Program. In 2015, three districts Madurai, Coimbatore and Tiruchirapalli have been added as new districts under NTCP. The total financial support received from Government of India from 2007 to 2017 for

the State and 5 Districts (Villupuram, Kancheepuram, Madurai, Coimbatore and Tiruchirapalli) for implementation of National Tobacco Control Programme is Rs 2.06 crore. The major components of the Tobacco Control Programme includes enforcement of tobacco control law, capacity building of various stakeholders on tobacco control, raising awareness in schools and colleges and declaration of tobacco free educational institutions, organizing mass IEC awareness campaigns and establishment of tobacco cessation centres.

24.2 Tamil Nadu is the first State in India to collect maximum number of fine amount from the violators of the Cigarette and Other Tobacco Products Act (COTPA), 2003. From 2nd October, 2008 to 31st March, 2017, 1,53,596 persons were fined and sum of Rs.2.01 crore has been collected from the violators of COTPA, 2003.

Enforcement squad is formed at State, District, Village and Block Level to monitor the violations under the COTPA, 2003. Officials from Government Departments such as Police, Education, Railway, Airport, Health, etc., and Non-government organizations such as civil societies, self help group, youth club, police boys club, etc., were trained on tobacco control. So far 1,161 training sessions was organized and 62,244 persons attended the training on tobacco control. In Tamil Nadu, 12,798 schools and 1,344 colleges were declared as "Tobacco Free Educational Institutions" under specified criteria. 684 Medical Officers, 148 NCD Staff Nurses, 53 ICTC Counsellors 178 youth Health volunteers were trained on tobacco cessation methodologies for setting up of tobacco cessation clinic / centres in their Hospitals / Primary Health Centres. Mass IEC campaigns such as celebration of World No Tobacco Day, Rally, IEC on Wheels, Human Chain, Signature

campaign, distribution of pamphlets etc., has been held on regular basis to educate public about ill-effects of tobacco.

National Leprosy Eradication Programme

24.3 The National Leprosy Eradication Programme (NLEP) 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 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 Susruth Samhita and treatment with 'Chaulmoogra' oil was known at that time.

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 to 7 years and is classified as pauci bacillary or multi bacillary, depending on the bacillary load. Leprosy is a leading cause of permanent physical disability. Timely diagnosis and treatment of cases, before nerve damage has occurred, is the most effective way of preventing disability due to leprosy.

24.4 Milestones in NLEP

- 1955 - National Leprosy Control Programme (NLCP) launched
- 1983 - National Leprosy Eradication Programme 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 16 States/UTs

24.5 In Tamil Nadu also National Leprosy Eradication Programme (NLEP) was launched during the year 1954-55. 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 population as on March, 2017. Intensive activities are carried out in 31 high endemic blocks where new case detection rate is more than 10 per 1,00,000 population during 2016-17. Re-constructive Surgery has been done to 117 patients in 2016-17 and special varieties of chappals were given to 9,239 patients. Self-Care kit to deformed

Leprosy patients has been issued to 13,911 persons. At present, 5,680 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.

National Iodine Deficiency Disorders Control Programme (NIDDCP)

24.6 This programme is implemented as part of the National Health Mission. The important objectives and components of National Iodine Deficiency Disorders Control Programme (NIDDCP) include 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 and Health education and publicity.

Chapter - 25

GERIATRIC CARE

25.1 Increase in human longevity in this millennium has resulted in the phenomenon of population ageing globally needing special attention to Geriatric care as aged persons need specialized health care facilities indispensable for providing accessible, affordable, high-quality, comprehensive and dedicated health care facility for the aged people. The population over the age of 60 years has tripled in last 50 years in India and will relentlessly increase in near future. The proportion of older people which was 7.7% in 2001, is gradually rising towards 9 to 10%. Along with rising numbers, the expectancy of life at birth is also consistently increasing, indicating that a large number of people are likely to live longer than before. As per the projected population, the elderly population of Tamil Nadu is currently around 5.7 million. Among the

diseases, the non communicable diseases are common in old age which requires large quantum of health and social care, irrespective of socio-economic status which can functionally compromise the ability to pursue the activities of daily living.

25.2 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. At the primary care level, the infrastructure and the health system machinery is geared up primarily to deal with the maternal and child health but also addresses other health challenges including geriatric care. Elderly and their health problems also need specialized care. Thus a model of care providing comprehensive health services to elderly, at all levels of health care delivery is imperative to meet the growing health need of elderly. Moreover, the immobile

and disabled elderly need care close to their homes. With this objective in view, steps have been taken to establish the Geriatric centres of various levels like National Geriatric Centre at King Institute of Preventive Medicine, Chennai, which is in the process of establishment, Regional Geriatric Centre at Government General Hospital, Chennai which is established and functioning well and Geriatric care units in various Government Medical College Hospitals as mentioned below:

- i. **National Institute of Ageing:** The Establishment of National Institute of Ageing at an estimated cost of Rs.126.87 crore is under active progress, for which 10 acres of land has been allotted 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 civil works, equipment and ambulance. The civil works is almost nearing completion.

- ii. **Department of Geriatric at Government General Hospital, Chennai, has been upgraded to Regional Geriatric Centre** which provides referral treatment, research, manpower development and also the department is involved in developing and updating training materials for various levels of health functionaries, developing IEC materials and guidelines. Funds have been provided for manpower, equipment, medicines, construction of building, training etc. An additional unit has been developed at Government General Hospital, Chennai, under the National Programme.

- iii. **20 bedded geriatric ward and also OPD service for the elderly** are provided in medical college hospitals in five districts at Coimbatore, Salem, Tirunelveli, Thiruchirappalli and Madurai under the National Programme for the Health Care of the Elderly (NPHCE). This service has been extended to three districts in Villupuram, Vellore and Thanjavur in a phased manner.
- iv. **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.
- v. **Two new Geriatric units** have been developed at Chengalpattu Medical College Hospital and Government Mohan Kumaramangalam Medical College Hospital by creating one Associate Professor of Geriatrics in each college.

- vi. **Geriatric Unit at 10 District Headquarters Hospitals:** The programme is being implemented in 10 districts and 10 bedded geriatric ward and dedicated OPD services exclusively for geriatric patients have been provided. The grant-in-aid has been provided for contractual manpower, equipments, medicines, construction of building, training etc.
- vii. **Rehabilitation units at CHCs falling under the 10 identified districts:** A rehabilitation unit is being set up at all the CHCs falling under identified districts. The grant-in-aid has been provided for manpower, equipments, training. There is provision for dedicated health clinics for the elderly persons twice a week.
- viii. **Activity at PHCs in the ten identified districts:** Weekly geriatric clinics are arranged at the identified PHCs by a

trained Medical Officer. For diseases needing further investigation and treatment, persons will be referred to the first referral unit i.e., the Community Health Centre or District Hospital as per need.

- ix. **Activity at Sub-centre in the 10 districts:** The VHNs posted in sub-centres are encouraged to make domiciliary visits to the elderly persons in areas under their jurisdiction. She will arrange suitable calipers and supportive devices from the PHC and provide the same to the elderly disabled persons to make them ambulatory. There will also be provision for treatment of minor ailments and rehabilitation equipments at the identified sub-centres. Grant-in-aid will be provided to sub-centres for purchase of aids and appliances.

Chapter - 26

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

26.1 Every year a large number of precious lives are lost in road accidents. The families affected undergo a huge emotional stress and economic impact is also severe when the bread winner is lost. The State Government has taken concerted efforts to reduce the accidents and also to save invaluable human lives. The most important being the efficient running of the 108 Ambulance services and maintenance of Trauma care centres.

26.2 Accident and Trauma care Centres have been established in the following tertiary care institutions with the Government of India assistance:

- 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

26.3 Additionally, Trauma Care Centres have also been established in the Government District Headquarters Hospitals at Karur, Krishnagiri, Kovilpatti and Dindigul. The Accident and Trauma care centres at the Chengalpattu Medical College Hospital, Coimbatore Medical College Hospital and Government District Headquarters Hospital, Kallakurichi and

Kumbakonam have been recommended by Government of India.

26.4 In addition to these efforts, the Government has 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 Government Medical College Hospitals 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, ensuring that victims are reached within the Golden hour and stabilized will bring down the death toll in accidents substantially in a sustained manner.

108- Emergency Ambulance Services

26.5 “108” Ambulance Service is successfully being operated in Tamil Nadu through a single **Toll Free number** and the services are available **24x7 and free** to the public. This program is implemented through a Public Private Partnership between Government of Tamil Nadu and GVK EMRI. The MOU is extended for another 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).

26.6 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, 840 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-ambulances	BLS-ambulances	Neo-natal-ambulances	4WD-ambulances	Total ambulances	FR Bikes
Ariyalur	1	14	2	-	17	-
Chennai	2	26	3	3	34	13
Coimbatore	2	23	1	4	30	2
Cuddalore	3	26	3	-	32	1
Dharmapuri	1	14	2	4	21	-
Dindigul	2	15	2	4	23	-
Erode	1	18	3	5	27	2
Kancheepuram	4	50	2	-	56	3
Kanyakumari	2	6	1	1	10	-
Karur	2	11	1	1	15	-
Krishnagiri	1	15	2	6	24	-
Madurai	3	22	3	-	28	2
Nagapattinam	2	16	1	2	21	-
Namakkal	1	16	2	4	23	-
Perambalur	1	9	1	-	11	-
Pudukottai	2	18	2	1	23	1
Ramanathapuram	2	16	2	2	22	-
Salem	3	21	2	6	32	2
Sivagangai	2	12	2	-	16	-
Thanjavur	1	19	1	-	21	2
The Nilgiris	2	11	1	16	30	-
Theni	1	12	2	3	18	1
Thiruvallur	1	37	3	2	42	1
Thiruvanamalai	1	27	2	4	34	2
Thiruvarur	1	13	2	1	17	-
Thoothukudi	2	12	3	-	17	-
Tiruchirapalli	2	23	2	1	28	2
Tirunelveli	3	25	2	1	31	1
Tirupur	2	16	2	-	20	1
Vellore	-	45	4	4	53	2
Villupuram	2	40	2	3	47	-
Virudhunagar	2	13	2	-	17	-
Grand Total	57	641	65	78	840	38

26.7 Key Performance Highlight for the year 2016–17

- This service designed to serve 7.21 crore population of the State
- 83,46,313 calls answered by the Emergency Response Centre
- 10,91,075 Medical Emergency Cases handled
- On an average, per day, per trip, per Ambulance performance 3.57 cases

26.8 Categories of Medical Emergencies:

Type of Emergencies	Percentage
Road traffic Accident	20.87
Pregnancy Related	22.91
Acute abdominal pain	9.35
Cardiac Related	6.19
Poisoning	4.93
Respiratory	4.58
Injured in assault	3.88
Epilepsy	3.11
Neonatal	1.96
Suicides	0.49
Others	21.73
Total	100.00

26.9 Highlights:

- 74,910 lives in very critical condition, were saved
- 97 % of cases admitted at Government Hospitals
- 3 % of cases admitted in Private Hospitals on requests from victim / attenders
- 14.89 % of cases were given first aid
- 45,103 Medical emergencies attended in tribal areas
- 20,584 Neonatal cases handled

26.10 Beneficiaries details and other details under this Service

Parameters	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
a) Pregnant mothers	128476	139068	160160	207492	233109	232408	240827
b) Road Traffic Accident	124907	130226	147290	174248	180578	191988	219310
c) Other Emergency	257159	231062	326914	409053	471765	533595	590861
Total Beneficiaries (a+b+c)	510542	500356	634364	790793	885452	957991	1050998
Tribal related	6734	13411	15541	16879	26910	31935	45103
Neo natal cases	8613	11780	16964	21670	20376	21788	20584
Critical lives saved	14308	18609	15919	65945	46742	38608	74910
No. of vehicles	436	629	638	643	704	758	840
Funds sanctioned in lakh	4770.34	5227.92	7123.34	8840.54	10215.63	10821.14	12023

26.11 New Initiatives

- Hackathon with Indian Institute of Technology (IIT) for development of App
- Global Positioning System (GPS)
- Geographical Information System (GIS)

26.12 Neonatal Ambulances: For the 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 equipments 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 19,070 babies have been benefited in this specialty service in this year. Currently 65 ambulances are in operation in all the districts. In addition, 29 ventilators have been provided in the year 2016-17.

26.13 Four Wheel Drive: Four Wheel Drive ambulances were introduced for Hilly / Difficult terrain areas where the normal ambulances cannot travel or in bad road conditions where the ambulances take much time to reach the emergency site. 78 vehicles are in operation.

26.14 Source of Funding and Expenditure: The 108 Ambulance Service is funded by the State Government. However, NHM provides at Rs.250 per case for Antenatal, Neonatal and Tribal cases. NHM provides 20% of the operational cost based on the number of Ambulances. The expenditure for the year 2016-17 is about Rs.120.23 crore.

26.15 Monitoring: The District Monitoring Committee headed by the District Collector reviews the performance of the 108 ambulance service and at the State level, the Project Director TNHSP and the Secretary, Health and Family Welfare review the State level

performance. The State level Advisory Committee headed by the Chief Secretary to Government also reviews the performance once in 6 months. Apart from this, the programme officers and field level functionaries inspect the ambulances and provide suggestions for improvements.

Emergency Critical Care Centre (ECC)

26.16 ECC – Tambaram, Padiyanallur and Injambakkam: Emergency critical care centres have been established in Tambaram, Padiyanallur and Injambakkam 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 Government in June, 2014. Emergency critical care centre has been established at GH Injambakkam on East Coast Road in Kancheepuram district in June, 2015. At these

centres, 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 equipments like ventilator, defibrillator with multi para monitor, essential life saving medicines with 4 emergency care trained Medical Officers and Nurses who work on shift basis. So far, 8,951 cases in Tambaram centre, 5,612 cases in Padiyanallur centre and around 1,320 cases in Injambakkam centre have been stabilized.

Bike Ambulance Service

26.17 Need for bike ambulances: This help in-

- Reducing Response time and avoiding transportation of victims in unsafe vehicles.

- 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.
- Can be deployed at Mass Gathering events.

The primary task of the bike ambulance would be to reach the scene of the emergency safely, provide first aid as and when required and being able to render medical care to those in need as early as possible.

26.18 Bike Ambulance and Mobile medical kit: First Aid Kit – Comprehensive, portable, easy to handle at scene; It contains stand for

Portable O2 cylinder, blinkers, revolving lights and siren. Other accessories such as safety knee guards, helmets, Gloves, Mobile, GPS and Headsets etc are stocked. TNEMRI has trained Emergency Management Technicians. Those who are holding a valid driving license and having an aptitude for operating the Bike Ambulance are engaged in this service. An integrated approach to the existing 108 Ambulance service is adopted and the bike ambulances are 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. After fabrication, the bike ambulances have been launched on 08.02.2016. So far (up to March, 2017) 9,628 number of cases are transported through this service since launch.

26.19 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.

S. No	HEAD OF THE DEPARTMENT	No. of Ambulances
1	Directorate of Medical Education	62
2	Directorate of Medical and Rural Health Services	93
3	Directorate of Medical and Rural Health Services ESI	5
4	Directorate of Family Welfare	93
5	Directorate of Public Health and Preventive Medicine	233
6	Commissionerate of Indian Medicine and Homeopathy	3
	TOTAL	489

26.20 Free Hearse Service: Under this programme the corpse of 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 161 vehicles are in operation covering all Government Medical College Hospitals and Government Taluk and Non-Taluk Hospitals in 32 districts of the State. The Indian Red Cross Society is running the programme under the guidance of Tamil Nadu Health System Project. This service also renders support during major accidents, natural calamities and disasters by transporting the deceased to the Government Hospitals for autopsy and then to their destination. During 2016-17, 97,104 bodies have been transported to their destination at

free of cost. The cases require beyond 300 kms transportation is transported through Railways. Government have sanctioned funds of Rs.12.87 crore for this service in 2016-2017. The number of vehicles in 2011 was 55 and now it is 161. It is planned to increase the fleet strength to 180 in future.

26.21 Janani Sishu Suraksha Karyakram (JSSK): The Government of India launched Janani Sishu Suraksha Karyakram (JSSK) scheme nationally where all delivered mothers at Government Institution and treated sick infants get free drop back service. To provide 100% free drop back service to delivered mothers and treated sick infants to their home, a pilot project at the Institute of Obstetrics and Gynaecology and Hospital for Women and Children, Chennai was introduced through Indian Red Cross Society. The scheme has been extended to all other districts now. The NHM is

funding this scheme in Tamil Nadu. During the year 2016-2017, 48,382 cases have utilized this service in Tamil Nadu. 61 new vehicles are inducted into this in 2016-2017.

Trauma Care

26.22 Tamil Nadu State Trauma Care Policy is being developed with focus on saving lives during pre-hospital and hospital care of accident injury and trauma victims which envisages a detailed roadmap for strategic planning and establishment of trauma care centres over the period of next ten years with equitable access for all victims.

Existing Road Accident Scenario

26.23 Tamil Nadu is a highly urbanized State in the country with National and State Highways roads extending to 14,427 kilometers and ranks first in the country in deaths due to Road Traffic Accidents. As per Ministry of Road Transport and

Highways (MoRTH) report 2015, Tamil Nadu reported 79,746 accident and trauma cases which is 15.8% of the total Road Traffic Accidents in India and 15,642 deaths, which is 10.7% of all RTA related deaths in India.

Existing Trauma Care System

26.24 Victims of the Road traffic accidents suffer from serious injuries like head injuries, chest injuries and 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, at present the hospitals strategically located in the highways is being strengthened and designated as Trauma care centres. The Government of Tamil Nadu, through Directorate of Public Health and Preventive Medicine (DPH&PM), Directorate of Medical and Rural

Health Services (DM&RHS), Directorate of Medical Education (DME) and network of empanelled hospitals under Chief Minister's Comprehensive Insurance Scheme (CMCHIS) are currently providing the trauma care services in the State. Currently, these services are being provided by

- i. Six Level-2 Trauma Care Centres (TCC),
- ii. Fourteen Level-3 Trauma Care Centres (established with support from Government of India- NHM funds)
- iii. Three additional Level-3 Trauma Care Centres with State support at Thiruvallur, Kancheepuram and Palani
- iv. Emergency Stabilization Centres at PHCs located on highways.

- v. The Level-4; Pre-Hospital Trauma Care services is being provided by '108' ambulances by TN-EMRI.

26.25 Considering the urgent need to reduce and ultimately prevent deaths due to road accidents the **Tamil Nadu State Trauma Care Policy** is being developed with focus on saving lives during pre-hospital and post-hospital care of accident injury and trauma victims which envisages a detailed roadmap for strategic planning and establishment of trauma care centres over the period of next ten years with equitable access for all victims. As one of the 17 SDG targets, is intended to halve the number of Global deaths and injuries from Road Traffic Accidents by 2020, it is essential to ensure timely referral and definitive treatment for the injured victims within the "Golden Hour" in Tamil Nadu. This requires upgradation and strengthening of the existing public hospitals as

identified and designated as “Level-1 / Level-2 / Level-3 Trauma Care Centres” based on the Government of India standards with assured referral linkage services. Establishment of “State Injury and Trauma Registry Surveillance System” will provide a high quality data resource for planning and monitoring of future trauma care services. The scope of 3 levels of TCC is mentioned below:

- **Level-1 TCC** provides emergency interventions on Neuro Surgery, Plastic and Reconstructive Surgery, Vascular Surgery, Radiology, Orthopaedic Surgery, General Surgery and Anaesthesiology and Critical Care Medicine with a capacity of 30 inpatient beds including 10-ICU beds
- **Level-2 TCC** provides emergency intervention on Neuro Surgery, Radiology, Orthopaedic Surgery, General Surgery and Anaesthesiology and Critical Care Medicine

with a capacity of 20 inpatient beds including 10-ICU beds

- **Level-3 TCC** provides emergency intervention on Orthopaedic Surgery, General Surgery and Anaesthesiology, Radiology and Critical Care Medicine with a capacity of 10 inpatient beds including 5-ICU beds

26.26 The expected outcome includes, reduction in mortality rate due to accidents and injury, increase in number of trauma care services including timely life saving procedures done by various levels of TCCs under public hospitals.

Chapter - 27

CHIEF MINISTER'S COMPREHENSIVE HEALTH INSURANCE SCHEME

27.1 This flagship scheme of the Government of Tamil Nadu is being implemented 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 scheme was inaugurated by the Honorable late Chief Minister with effect from 11.01.2012. As on 10.01.2017, 17.30 lakh beneficiaries have received insurance coverage of Rs.3,398.66 crore under this scheme. In addition to this, 3.94 lakh persons were benefitted under diagnosis with the insurance coverage of Rs.77.84 crore. The Government hospitals have utilized the scheme effectively and rendered treatment for 6.93 lakh beneficiaries for an insurance coverage of Rs.1,161.61 crore. Moreover, Government

hospitals in the State have improved very well in their infrastructure, new buildings and other facilities. As announced in the Budget 2016-17, this scheme is continued from 11.01.2017.

27.2 The salient features of CMCHIS being continued from 11.01.2017 are as follows:

- i. **Sum insured:** The coverage will be Rs.1 lakh annually and Rs. 2 lakh for specialized procedures
- ii. **Procedures:** 312 new procedures have been added and 252 existing procedures have been merged and 49 low utilization procedures have been removed making the scheme qualitatively better with 1,027 medical and surgical treatment procedures, 154 specialized procedures, 154 follow up procedures, 38 standalone diagnostic procedures and 8 High end

procedures. 158 treatment procedures have been exclusively allotted for Government hospitals.

- iii. Migrant labourers, who have resided in the State for more than six months as certified by suitable authority, will be included after the payment of premium for migrant employees by the Labour Department.
- iv. Orphans, as defined by the State Government will be covered under the scheme and given single card.
- v. Existing health insurance card shall be continued. However, provision to download and print electronic cards is proposed by uploading the details in the website.
- vi. A mechanism is being developed in consultation with TNeGA to link Aadhaar with CMCHIS.

- vii. The Quality assurance standard of Government of India / National Accreditation Board for Hospitals and Health Care Providers (NABH) entry-level accreditation of hospitals is going to be insisted for all the hospitals including the Government hospitals.
- viii. Electronic health records with accessibility to beneficiary is being planned.
- ix. All grievances will be acknowledged immediately and updated within 3-7 working days. Individual grievance tracking to be made available in the website including the complaints against the empanelled hospitals.

27.3 In this scheme, the beneficiaries can get treatment free of cost for approved procedures in the empanelled hospitals by producing smart card. Public can contact toll

free No.1800 425 3993 for any details of the scheme / in getting guidance for treatment under the scheme / to set right the difficulties in taking treatment under the scheme / to register the complaints. Any complaints shall be submitted to the District Monitoring and Grievance Committee headed by the District Collector. Any appeal against the decision of the District Monitoring and Grievance Committee may be referred to the State monitoring committee headed by the Project Director, Tamil Nadu Health Systems Project.

27.4 During the first year of implementation of the scheme, 2.21 lakh persons benefitted to a tune of Rs.479.32 crore (actual approved amount), in second year, 3.41 lakh persons with Rs.679.97 crore (actual approved amount), in third year, 3.52 lakh persons with Rs.684.41 crore, (actual approved amount) in fourth year, 3.98 lakh persons with Rs.768.22

(actual approved amount) and in fifth year, so far, 4.16 lakh persons benefitted with Rs.786.73 crore (actual approved amount). Under the present policy from 11.01.2017 upto 31.03.2017, 57,393 persons have got insurance coverage for Rs.101.56 crore. Out of this, 24,896 beneficiaries have got treatment in Government hospitals for insurance coverage for Rs.36.14 crore. So far, 31,812 beneficiaries undergone diagnostic tests for approved amount of Rs.6.63 crore. Under high end procedures, 395 persons have been approved for surgery.

27.5 Under the scheme, from the receipts of insurance the empanelled Government hospitals generated funds as per the following details:

S. No.	Year	Amount Rs. in Lakh
1	11.01.2012 to 10.01.2013	14885.51
2	11.01.2013 to 10.01.2014	24546.29

3	11.01.2014 to 10.01.2015	24483.15
4	11.01.2015 to 10.01.2016	27131.06
5	11.01.2016 to 10.01.2017	25115.25
Total		116161.26

27.6 Diseases wise authorization issued for surgery are given in the following table:

**Table–Speciality wise Authorization Issued
(11.01.2012 to 10.01.2017)**

S. No	Specialty	No. of cases Approved	Approved Amount Rs. in Lakh
1	Cardiothoracic Surgeries	101386	81010.38
2	Genitourinary Surgery	106120	23845.82
3	Replacement	36346	24656.19
4	General Surgery	94582	20709.48
5	Nephrology	292072	24682.90
6	Neurosurgery	46977	18132.15
7	Ear, Nose and Throat	118056	14544.82
8	Gynecology and Obstetrics Surgery	81192	15267.45

9	Medical Oncology	245056	14596.89
10	Neonatology	83917	14791.30
11	Radiation Oncology	70842	15863.98
12	Orthopedic Trauma	65125	12997.88
13	Ophthalmology Surgeries	74189	9340.28
14	Cardiology	41276	11127.79
15	Surgical Oncology	31123	8158.43
16	Plastic Surgery	31894	7669.11
17	General Medicine	37689	8155.59
18	Neurology	37068	6998.66
19	Vascular Surgeries	20629	6006.98
20	Paediatric Intensive Care	31000	4357.26
21	Hepatology	49254	4015.47
22	Surgical Gastro Enterology	8671	3375.72
23	Paediatric Surgeries	8069	2356.76
24	Interventional Radiology	5435	2762.55
25	Gastroenterology	9926	1874.25
26	Pulmonology	8183	1408.18
27	Poly Trauma	5255	1007.27
28	Paediatrics	6749	763.85
29	Dermatology	2072	295.79

30	Rheumatology	3592	375.15
31	Transplantation	384	548.38
32	Chest Surgery	236	91.76
33	Endocrinology	661	145.85
34	Follow Up Procedures	8987	150.40
35	Diagnostics	394392	7783.53
	Grand Total	2158405	369868.25

27.7 To help the needy and poor people, especially children, who have to undergo costly surgeries such as Liver Transplantation, Renal transplantation including post transplant procedure for Immunosuppressant Therapy, Bone Marrow Transplantation, Cochlear Implantation and Stem Cell Transplantation costing more than Rs.1.50 lakh, corpus fund has been created for which Government have sanctioned Rs.35 crore. The extra cost of the surgery exceeding the eligible amount Rs.1.50 lakh per annum is met from this Corpus Fund. The entire cost of specialized surgery will

be borne by the insurance Company upto Rs.1.50 lakh and the remaining amount will be met from the Corpus Fund. All such cases are cleared by an Expert Committee. 4695 beneficiaries (4300+395) have been approved for these high end surgeries as per the following details:

Sl. No	Nature of Surgical procedure	Number of beneficiaries authorized
1	Liver Transplantation	209
2	Renal Transplantation	1415
3	Cochlear Implantation	2734
4	Bone Marrow Transplantation	326
5	Stem Cell Transplantation	11
Total		4695

27.8 Special Medical Camps: Under CMCHIS, camps have been conducted by both Government and Private empanelled hospitals every month. From Jan-2012 to Mar-2017, 29,930 individual and 1046 mega camps were

conducted and about 36,75,117 persons were screened and 3,16,257 persons were referred for further treatment. In Feb-2016, 1021 special camps were conducted and 2,73,113 people were screened in the camps and in February, 2017, 810 special camps were conducted and 2,52,550 people were screened in the camps. In these camps, NCD screening is also done for men and women for hypertension, diabetes and in addition cervical and breast cancer for women. So far, 12,25,223 persons were screened for further treatment.

27.9 Awards and Improvements: The Scheme 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, Tamil Nadu. Apart from this, certain cost control measures were effected, like cost of drug eluting

stent reduced from Rs.80,000 to Rs.18,500 for CMCHIS patients through negotiation with all major suppliers.

Chapter - 28

CERTAIN IMPORTANT ACTS

Transplantation of Human Organ Act, 1994

28.1 The Transplantation of Human Organ Act, 1994 was enacted 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. In Tamil Nadu, transplantation of human organs is being done in the hospitals registered under the Act. The Director of Medical and Rural Health Services is the State Appropriate Authority for implementation of the Act. The hospitals which are applying for registration under this act are inspected by the team of specialists from the Government Medical College Hospitals. Based on the inspection report furnished by the above specialists, the State Appropriate Authority issues the registration

certificate. In Tamil Nadu, 94 hospitals have so far registered under this Act for performing renal, heart, liver, lungs and heart valves transplantations. Tamil Nadu ranks number one in the implementation of the Deceased Organ Transplant Programme. For the past two years Tamil Nadu has received National Award for the best performing state under this category. 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 neighborhood, Vellore

South Zone - Tiruchirappalli, Madurai,
Tirunelveli, Nagercoil

West Zone - Coimbatore, Erode, Salem

Deceased Organ Transplant Programme

28.2 The Deceased Organ Transplant Programme has been implemented in the State of Tamil Nadu from 16.09.2008 and successfully entering to the ninth year as a "Premier" State in the country, with ten times higher than the average rate of other States. The Government of Tamil Nadu has formed Transplant Authority of Tamil Nadu (TRANSTAN), under the Chairmanship of the Hon'ble Chief Minister which enables extension of more effective implementation of the scheme. It was registered in 2015 to give it necessary functional and operational independence on the lines of the TNMSC and TANSACS.

28.3 The details of donors and donated organs in Tamil Nadu are given below:

	2016-17	From October, 2008 to March, 2017
Donors	190	934
Heart	103	284
Lung	56	145
Liver	184	881
Kidney	349	1695
Pancreas	11	16
Small Bowel	0	2
Total Major Organs	703	3023
Skin	76	55
Corneas	287	1420
Heart Valves	26	719
Blood Vessels	0	2
Total	1092	5219

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

28.4 Under the Act, 6405 scan centres have been registered so far and cases have been filed against 114 scan centres for the violation of this

act. Out of 114 cases filed, judgment had already been delivered in 87 cases and 27 cases are under trial. To implement the act very strictly in the taluks and districts where the juvenile sex ratio is below the State level of 943, surprise check of the scan centres and MTP centres are conducted.

Tamil Nadu Public Health Act, 1939

28.5 Tamil Nadu was 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. The main focus of the Public Health Act, 1939 is on environmental health, communicable disease control, food hygiene and maternity and child health measures. Considering emerging challenges in public health, the Public Health Act

also needs a relook and the Government is taking action to amend the act. 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.

Civil Registration System

28.6 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 in selected Town Panchayats and the Madras City Municipal Act, 1919 in Chennai Corporation. There are

16,142 registration units in 32 revenue districts of the State including Chennai urban district.

28.7 The Registration of Births and Deaths has been made compulsory at the place of occurrence under the Central Act, 18 of 1969. With the implementation of Tamil Nadu Registration of Birth and Death Rules, 2000 with effect from 01.01.2000 and in accordance with the provisions of section 30(2)(b) of the Registration of Births and Deaths Act, 1969, the registration of birth and death should be reported within 21 days of its occurrence for registration. However provisions are made in the act and rules to register the events beyond 21 days also. After 21 days but within 30 days, the events can be registered with late fee. After that but within a period of one year, the events can be registered with a written permission of the prescribed authorities along with late fee. For the events which have not been registered

within one year of its occurrence, only the Executive Magistrate not below the rank of Revenue Divisional Officer has been empowered to grant permission to register. Further, the child's name once registered cannot be changed. For all births / deaths which are registered within 21 days, one copy of birth / death certificate are issued at free of cost to the informant. As per the Act, the birth or death can be registered at the place of occurrence and not in the native place or at the place of burial.

28.8 Tamil Nadu has achieved 100% in birth and death registration during 2015. Since the implementation of birth and death registration at Primary Health Centres from August, 2009, 16.95 lakh free birth certificates have been issued up to March, 2017.

Medical Certification of Cause of Death

28.9 The Medical Certification of Cause of Death (MCCD) procedure is a part of Civil Registration System and is the only source which provides cause specific mortality data. The procedure was introduced in seven selected Municipalities and Chennai Corporation during 1969 and later it was extended to all Municipalities and Corporations from 1980. Further, it was extended throughout the State from 1984. To improve Medical Certification of Cause of Death, regular trainings are given to doctors every year.

Chapter - 29

RESEARCH AND TRAINING

Multi-Disciplinary Research Unit

29.1 To promote health research activities, Government of India has created a new Department (Department of Health Research) under the Ministry of Health and Family Welfare and has launched the following three schemes namely, Establishment of Multi-Disciplinary Research Units, Establishment of Network Laboratories for managing epidemics and natural calamities and establishment of Model Rural Health Research Units:

- i. **Multi-Disciplinary Research Units (MDRUs):** This scheme has been approved to establish Multi-Disciplinary Research Units (MDRUs) 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). Against the total sanction of 41 colleges in India, five MDRUs have been sanctioned to Tamil Nadu for Madras Medical College, Tirunelveli Medical College, Coimbatore Medical College, Dr.ALM Post Graduate Institute of Basic Medical Sciences, Taramani and Chengalpattu Medical College.

- ii. **Establishment of Network of Research Laboratories for Managing Epidemics and Natural Calamities - Viral Research Diagnostic Laboratory (VRDL):** 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 labs are being established at Madurai Medical College and Government Medical College, Theni. 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.

iii. **Model Rural Health Research Unit:**

Model Rural Health Research Units are established in rural areas of the country in order to serve as model for transferring the technology to State health personnel working for the rural masses. Such a unit has been established at Government Primary Health Centre, Kallur, Tirunelveli district and linked to Tirunelveli Medical College, Tirunelveli.

Public Health

29.2 For improving health care delivery system, Tamil Nadu has pioneered activities including monitoring of maternal and child health care through PICME, administration of iron sucrose, introduction of vaccines like Japanese encephalitis, pentavalent etc. These pioneering activities were subsequently adopted as part of National policy and implemented throughout the country. As the continuation of research and

development activities, Tamil Nadu is currently undertaking many innovative initiatives through State, national and international collaborations.

- i. An innovative project with the funding support of the State Planning Commission under TANII, has been launched for developing Real time Communicable Disease Surveillance for 12 Corporations at a total cost of Rs.2.98 crore.
- ii. **Centre for Disease Control (CDC) - India funding projects:**
 - a. Tiruvallur district has been taken as model district for disease control in collaboration with National Institute of Epidemiology (NIE) with funding support of CDC India.
 - b. Anti-Microbial Resistance (AMR) Programme through Global Health Security Agenda (GHSA) in two districts

(Kancheepuram and Tirunelveli) with funding support from CDC India.

- c. Acute Febrile Illness Pilot Project in Krishnagiri and The Nilgiris district with funding support from CDC, India
- d. Global Food Borne Diseases Prevention Network proposal in two districts viz. Kancheepuram and Cuddalore through funding from NCDC.

29.3 The path ahead: Tamil Nadu is always looked upon as a leader in health care sector and Chennai is referred to as the health care capital of India. Thus with the continued focus, based on its rich history, pioneering need based programmes and schemes, strong focus on improving the systems, world class human resources, robust public private partnership, 'State of Art' facilities, setting up of high benchmarks such as Vision 2023, well informed

and active public participation and the successful record of implementing all the National Health Mission Schemes, the State is now well placed and poised to scale greater heights in achieving the national goals, targets and outcomes in the health sector well ahead of the schedule. All these efforts in the health sector would continue to be implemented to the satisfaction of the people.

Dr. C. VIJAYABASKAR
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