



**HEALTH AND  
FAMILY WELFARE  
DEPARTMENT**

**Demand No.19**

**POLICY NOTE  
2018-19**

**Dr. C. VIJAYABASKAR  
Minister for Health**

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## Chapter – 1

### INTRODUCTION

இழிவறிந்து உண்பான்கண் இன்பம்போல் நிற்கும்  
கழிபேர் இரையான்கண் நோய் (குறள் 946)

“As pleasure dwells with him who eats moderately, so disease (dwells) with the glutton who eats voraciously.”

**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 pioneered several landmark schemes, which has enabled the State in being ranked among the top three States in the “Healthy State Progressive India” report brought out by the NITI Aayog. The State also has the distinction of bagging three consecutive best State award in deceased organ transplantation. The State has also received awards and

accolades from various independent review missions and institutions.

**1.2** The State Government is aware that achieving further improvements in the relevant Health Indicators would require further intensification of its efforts and addressing the intra and inter district challenges. The State has set itself an ambitious goal of achieving the levels attained by developed nations by 2023 well ahead of the time set for achieving the health specific Sustainable Development Goals (SDG).

**1.3** Tamil Nadu is credited with introduction of several landmark initiatives such as starting of first of its kind Tamil Nadu Medical Services Corporation (TNMSC), Tamil Nadu State AIDS Control Society (TNSACS), Transplant Authority of Tamil Nadu (TRANSTAN) on the one hand and implementation of pioneering schemes at the State level such as Dr.Muthulakshmi Reddy

Maternity Benefit Scheme with enhanced assistance, Chief Minister's Comprehensive Health Insurance Scheme, Menstrual Hygiene Programme, Birth Companion Programme, Amma Baby Care Kit, Amma Arogya Thittam, Amma Whole Body Check-up, Amma Magaperu Sanjeevi among others. Ensuring access to the Comprehensive Emergency Obstetric and Newborn Care (CEmONC) Centres, Neonatal Intensive Care Units, Blood Banks and Blood Storage Centres have been pivotal to the improvement in maternal and child health indicators. Apart from this, the State also has implemented all the programmes and schemes under the National Health Mission and achieved the targeted outputs and outcomes ahead of time.

### **State Profile**

**1.4** As against a population of 7.21 crore as per 2011 census in our State, it is estimated that

the mid-year population in 2018 would be 8.03 crore. The State has 42 Health Unit Districts (HUD) in addition to Chennai Corporation. The State has the lowest Total Fertility Rate (TFR) of 1.6 and has achieved an Infant Mortality Rate (IMR) of 17 per 1,000 live births as per Sample Registration System (SRS) 2016. The State has achieved the Maternal Mortality Ratio (MMR) of 66 as per the SRS 2014-16 and as per the State records has attained a figure of 62 per lakh live births. The State has achieved nearly 100% institutional delivery and 94.4% women register within the first trimester.

### **Current Scenario**

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

**Government Medical and Health  
Facilities in Tamil Nadu**

| <b>Sl. No.</b> | <b>Description</b>   | <b>Units</b> |
|----------------|--|--------------|
| 1              | Government Medical Colleges  | 22           |
| 2              | Hospitals attached with the Medical Colleges   | 48           |
| 3              | Tamil Nadu Government Multi Super Speciality Hospital                                  | 1            |
| 4              | Tamil Nadu Government Dental College and Hospital                                      | 1            |
| 5              | District Headquarters Hospitals  | 29           |
| 6              | Taluk and Non-Taluk Hospitals  | 273          |
| 7              | Primary Health Centres (PHCs)  | 1,806        |
| 8              | Health Sub Centres (HSCs)  | 8,706        |
| 9              | Urban Primary Health Centres (UPHCs) including Chennai Corporation                     | 460          |
| 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        |



**1.6** This department has staff strength of over one lakh persons serving on an average of over 6.5 lakh out-patients and about 70,000 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 thus furthering the cause of prevention and cure and also achievement of targeted outcomes.

**1.7** The schemes of the Government have been described in detail in the rest of the Chapters in the Policy Note while a summary of few significant achievements have been narrated below:

## **Significant Achievements in the Health Sector during the last Seven Years**

### **Health Indicators**

- **Infant Mortality Rate (IMR)** was 24 in 2010 and this has been reduced to 17 per 1,000 live births in 2016 as per SRS data 2016 against the National IMR of 34. This Government has received a sum of Rs.489.40 crore during the period from 2012-13 to 2014-15 as incentive from the Government of India for the reduction in IMR.
- As per latest SRS data 2014-16, the **Maternal Mortality Ratio (MMR)**, which was 90 in 2010-12, has been reduced to 66 per one lakh live births. Now, it is reduced to 62 as per 2016-17 State Health Management Information System Data. The current MMR of India is 130.

- **The current Total Fertility Rate (TFR)** is 1.6, the target of 12<sup>th</sup> Five Year Plan has already been achieved by the Government. This is the lowest in India against the India's status of 2.3.

### **State Schemes**

- In order to achieve the objectives of Universal Health Care to the people of Tamil Nadu, **Chief Minister's Comprehensive Health Insurance Scheme** was introduced in 2012 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 were issued to 1.58 crore families. 881 hospitals including all the Government Medical Colleges Hospitals and the District Headquarters Hospitals were empanelled to

provide treatment under this scheme. During the five years period of implementation upto 10<sup>th</sup> 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 insurance scheme is continued from 11.01.2017 as announced in the Budget 2016-17, through the United India Insurance Company Limited, which is a public sector company. The coverage is 1 lakh per year per family and the provision for certain specialized procedures has been increased from Rs.1.5 lakh to Rs.2 lakh. 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 & surgical treatment procedures, 154 specialized procedures, 154 follow up procedures, 38 standalone diagnostic procedures and 8 High end procedures. 158 treatment procedures have been reserved for Government Hospitals. 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. 5,43,540 persons have got insurance coverage for Rs.977.70 crore from 11.01.2017 upto 31.03.2018 under this scheme.

- 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 eight specialized high end surgeries requiring amounts higher than Rs.2 lakh and so far, 6,119 beneficiaries have been benefited and the total approved amount is Rs.440.98 crore.

- Government is implementing **Dr.Muthulakshmi Reddy Maternity Benefit Scheme** (MRMBS) with the noble objective of providing assistance to poor pregnant women / mothers to meet the expenses on nutritious diet and to compensate them for the loss of income during the delivery period, so as to prevent low birth weight in newborn babies. Assistance of Rs.12,000 under this scheme is disbursed in three equal installments of Rs.4,000 each. Till 2017-18, 46.72 lakh pregnant women received the financial assistance for an amount of Rs.4,337.38

crore. The assistance of Rs.12,000 now given has been increased to Rs.18,000 per beneficiary including women specific nutrition kit.

- To promote the hygiene among the adolescent girls, **Menstrual Hygiene Programme** has been introduced and under this scheme priceless sanitary napkins are distributed annually to around 32.79 lakh adolescent girls. Annually, about Rs.61 crore is being spent for this programme.
- Under the **Hospital on Wheels Programme** at present 416 teams are functioning. Every month 40 camps are conducted in each block. Over 8.75 crore persons have availed benefits from 13.02 lakh camps conducted so far. This is being implemented from 2011-12 onwards

in all the 385 Blocks with modern Medical and Lab Investigation facilities.

- **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 for improving the hygiene of the post-natal mothers and newborn babies and the scheme has been inaugurated by Hon'ble Chief Minister on 08.09.2015. Upto March 2018, 13,31,565 delivered mothers have been issued Amma Baby Care Kit.
- **Amma Arokiya Thittam** an annual wellness health check-up programme is implemented in 400 Block Primary Health Centres and Upgraded Primary Health Centres to all the people in the age of 30 years and above. 25 parameters are screened under this programme and since the launch of the scheme in March 2016,



35.79 lakh persons have undergone health check-up upto March 2018.

- **Amma Whole Body Health Check-up and Amma Women Special Check-up** is being implemented since 01.03.2016 in Government General Hospital, Chennai in the first phase. So far, 26,900 persons have undergone this whole body health check-up. This programme has been extended to Tamil Nadu Government Multi Super Speciality Hospital, Omandurar Estate, Chennai and has been inaugurated on 08.06.2018 by Hon'ble Chief Minister. Further, this programme is being extended to the Government Medical College Hospitals at Coimbatore, Madurai and Tirunelveli.
- **"104" Health Helpline cum Telemedicine Service** was introduced on 30.12.2013 for providing free access to

health information, health guidance and grievance redressal. Upto March 2018, 28,27,360 calls have been received from the public and health information provided.

- **Breast Milk Banks** have been started in 25 Government Medical College Hospitals and District Headquarters Hospitals. In 352 Bus stands and Terminals, separate feeding rooms have been established to enable the feeding mothers to breast feed their new born child in a safe enclosed room.

### **Schemes under National Health Mission**

- **Rastriya Bal Swasthya Karyakram (RBSK)** is a child health screening and early intervention service with the aim to screen all children from 0-18 years for four diseases – defects at births, disorders, deficiencies and development delays including disabilities. 770 mobile health

teams in rural blocks and 15 mobile health teams in Chennai Corporation and 12 mobile health teams in other corporations are screening the children in the Anganwadis, Government and Government aided schools. This scheme has been extended to Chennai corporation and other corporations also.

- **108 Ambulance Services:** 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. 926 ambulances are in operation under the 108 emergency ambulance service and since 2011-12, 61.07 lakh people have availed the services including 15.35 lakh pregnant mothers and 1.33 lakh neonates. First time in the Government sector in India, Neonatal Emergency Ambulance services has been

introduced to reduce neonatal mortality. 76 Four Wheel Drive Ambulances are in operation in difficult terrains. First Responder Bike Ambulance Service has been introduced with 41 two wheelers on 08.02.2016.

- **102 – Drop Back Service** Janani Sishu Suraksha Karyakram (JSSK) Scheme is implemented under which all delivered mothers in Government Medical Institutions and treated sick infants get free drop back service. To provide 100% free drop back service, 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. This service can be utilized by dialing the Toll Free Number '102'. During the year 2017-18,

1,32,356 persons have utilized this service. 110 vehicles are available in this service in 2017-18. NHM provided Rs.250 per case for drop back service.

- 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 total cost of Rs.58.69 crore.
- **Non-Communicable Diseases** - Our State has been implementing the Non-Communicable Diseases Intervention Programme since 2013-14 in all the districts. This is the first of its kind to be implemented on such a large scale in India. It is under implementation in all the 32 districts in Tamil Nadu involving

2,602 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.

- **Medical Services Recruitment Board**, a first of its kind in India has been established exclusively for the Health Department in the State. As on 31.03.2018, 23,557 personnel in the category of Assistant Surgeons, Nurses, Physiotherapists, Radiographers, Pharmacists, Village Health Nurses etc., have been recruited.
- In the past seven years, 254 new PHCs have been established at a total cost of

Rs.221.30 crore and 165 PHCs have been upgraded with 30 beds, Ultra Sonogram, operation facility, etc., at a cost of Rs.190.37 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. Besides this, 52 Taluk Hospitals have been started by upgrading the existing Upgraded Primary Health Centres and Non Taluk Hospitals at a cost of Rs.93.96 crore.

### **Medical Education**

- **Increase of 1000 additional M.B.B.S. Seats:** Four new Government Medical Colleges were started in Sivagangai, Tiruvannamalai, "B" Block of Omandurar Government Estate, Chennai, ESIC Hospital,

Coimbatore with an annual take of 100 students each and Government Medical College at Pudukkottai with an intake of 150 students has been started in the academic year 2017-18. Apart from this, 410 additional MBBS seats in seven Government Medical Colleges, i.e. Chengalpattu Medical College, Chengalpattu, Kilpauk Medical College, Madras Medical College, Chennai, Stanley Medical College, Chennai, Thoothukudi Medical College, KAP Viswanatham Medical College, Tiruchirapalli and Government Mohan Kumaramangalam Medical College, Salem were increased. Besides this, 40 MBBS seats in IRT Perundurai Medical College has been increased from 60 to 100 from the academic year 2017-18.

- **Increase of Post Graduate seats:** During the last six years, 562 Post Graduate



medical seats were increased in the Government Medical Colleges. During the last two years alone, an unprecedented 462 seats have been increased.

- Super Speciality facility with Trauma Care Centre is being created in Government Medical Colleges at Madurai, Thanjavur and Tirunelveli at a cost of Rs.150 crore each under 'Pradhan Mantri Swasthya Suraksha Yojana' (PMSSY) and construction of buildings are nearing completion in these places.

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

- i. **Cadaveric Organ Transplantation:** Our State has been always cited as a model for other States due to the systems put in place under this programme. For the past three years, our State has bagged the

'Best State Award' nationally under this category.

- ii. **Public Health Cadre:** In Tamil Nadu, there is a separate Public Health Cadre with a separate directorate, budget and legal support. This has helped in improving preventive and promotive public health 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, started in 1995, for the procurement of drugs, equipment and supplies for all public health facilities. 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 Ultrasonogram machines across CHCs.

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. The nutrition kit being introduced for pregnant women would go a long way in resolving this issue further.

- vi. **Birth Companion Programme:** The State has introduced this 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:** This helps in reducing gap between service providers and the community and builds more trust and confidence in availing services from public institutions and is organised by the Auxiliary Nurse and Midwives.
- viii. **Well Functional and Co-located AYUSH services** are provided across most facilities 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 with the assistance of the Red Cross Society. Very good utilization of the mortuary vans was observed by the Common Review Mission (CRM) team.

- x. **Awards for District Collectors:** Based on the performance under National Health Mission (NHM), every year three District Collectors are given awards encouraging their involvement in health sector.

### **1.9 Awards Won / Secured at all India Level in the Last Seven Years**

- i. Winner of **National e-governance award-Gold** 2011-12 under category of “Exemplary reuse of ICT based solutions” received from Government of India, at Bhubaneswar for Health Management Information System.

- ii. **1<sup>st</sup> prize – Award for Child Survival** given by Government of India (among Non Empowered Action Group (EAG) States like Uttar Pradesh, Bihar etc) at the event “National Summit on Best Practices in Public Health Care System” – July 3-5, 2013.
- iii. **1<sup>st</sup> prize – Award for Infant Survival** given by Government of India (among Non EAG States) at the event “National Summit on Best Practices in Public Health Care System” – July 3-5, 2013.
- iv. **South Asia and Asia Pacific Manthan Juror’s Award** for the year 2013 received from Digital Inclusion for Development, New Delhi for Health Management Information System.
- v. **e-India Award** given by e-health publication in co-ordination of

Government of Andhra Pradesh for the year 2012 for the best use of Information and Communication Technology (ICT) in the Chief Minister's Comprehensive Health Insurance Scheme in the form of certificate.

- vi. **e-India Award** given by e-health publication for the year 2013 for the best use of ICT in the Chief Minister's Comprehensive Health Insurance Scheme.
- vii. **e-India Award** for the year 2013-14 received from e-lets, Thiruvananthapuram for Health Management Information System.
- viii. **Award for Making India Polio Free** from **World Health Organisation** – 2014

- ix. **South Asia and Asia Pacific Manthan Special Mention Award** for the year 2014 received from Digital Inclusion for Development, New Delhi for Health Management Information System.
  
- x. **South Asia-E-health Summit Award** in the form of certificate for 2014 for Innovation in quality of service delivery from the ITC Post Uttar Pradesh (Private Organization).
  
- xi. **National Florence Nightingale Award** to Nursing Personnel – Tmt. W. Beaula Indirani, Maternal and Child Health Officer, Public Health Department given by Government of India for the year 2014.



- xii. **National Florence Nightingale Award** to Nursing Personnel – Tmt. Kasthuri, Sector Health Nurse, Public Health Department given by Government of India for the year 2015.
  
- xiii. Tamil Nadu was awarded **first place for having highest reduction of Infant Mortality Rate among larger States in 2015.**
  
- xiv. Tamil Nadu was awarded **Gold Medal for best performing State for scaling up cervical cancer screening early detection and treatment** by Common Wealth Association for Public Administration and Management (CAPAM) at Malaysia in 2016.

- xv. Common Wealth Association for Public Administration and Management (CAPAM) 2016 awarded individual category award for **Innovation in Public Service Management.**
  
- xvi. Tamil Nadu was awarded for **Exemplary Contribution in Post Partum Sterilization Programme** at National Family Planning Summit (2016), New Delhi
  
- xvii. Tamil Nadu was awarded **first place** for having **lowest out of pocket expenditure** incurred in public hospitals for deliveries and child birth among larger States at **National Summit on Good, Replicable Practices and Innovations in Public Health Systems in India at Tirupathi (2016).**

- xviii. Tamil Nadu was awarded **first place** for maximum improvement in **IPD - In Patient Services** in Public Health Institutions among larger States at **National Summit on Good, Replicable Practices and Innovations in Public Health Systems in India at Tirupathi (2016)**.
- xix. National Award for best performance in the country in terms of **Deceased Organ Transplantation** for the years 2015, 2016 and 2017.

## **Budget**

**1.10** The Government of Tamil Nadu is increasing the budget to the health sector every year substantially. Rs.11,638.44 crore have been provided in the budget for 2018-19. The directorate wise allocation for 2018-19 under

Demand No.19, Health and Family Welfare is as follows:

| <b>Sl. No</b> | <b>Name of the Office</b>                            | <b>Amount (Rs. in crore)</b> |
|---------------|--|------------------------------|
| 1             | Health and Family Welfare Department, Secretariat    | 12.03                        |
| 2             | Directorate of Medical and Rural Health Services     | 1,297.14                     |
| 3             | Directorate of Medical Education                     | 3,133.41                     |
| 4             | Directorate of Public Health and Preventive Medicine | 3,225.21                     |
| 5             | Directorate of Family Welfare                        | 187.98                       |
| 6             | Tamil Nadu Food Safety and Drugs Administration      | 83.46                        |
| 7             | Directorate of Indian Medicine and Homoeopathy       | 310.51                       |
| 8             | Tamil Nadu State Health Transport Department         | 33.65                        |
| 9             | Reproductive and Child Health Project                | 1,482.73                     |
| 10            | Tamil Nadu Health Systems Project                    | 1,561.47                     |
|               | <b>Total</b>   | <b>11,327.59</b>             |

**NOTE:**

- i. Apart from the above provision, Rs.310.85 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.568.35 crore has been made in the Labour and Employment department Demand No.32.

**1.11** 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** 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 hospital has been traced back to 1644, when it was started as a small hospital which has now grown into the prestigious Government General Hospital attached to the Madras Medical College.

**2.2** Tamil Nadu which now has the distinction of having the largest number of Government Medical colleges also was one of the pioneers in starting them. The first Medical College in the State, the Madras Medical College was

inaugurated on 3<sup>rd</sup> February, 1835 and has the distinction of being the second oldest college in India, next only to the Calcutta Medical College, which was started on 28<sup>th</sup> January, 1835. Likewise, the Eye Hospital, Egmore, attached to the Madras Medical College, has the distinction of being 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. The Madras Medical College also pioneered in setting up Institute of Child Health, Institute of Thoracic Medicine, Institute of Obstetrics and Gynaecology, Kasturba Gandhi Hospital at various times to serve specific needs and have now developed into renowned centres. Similarly, the Institute of Mental Health, Chennai also has a rich history and involved in mental health care for the past 206 Years. Founded in 1794, as an asylum to manage 20 patients, it has grown into an Institute with bed strength of 1800 patients. It is no more an asylum for custodial care but a

place for enhancing mental health and a training centre for mental health professionals. Today Institute of Mental Health is the second largest Institute in India, offering mental health services to the massive population of Tamil Nadu.

**2.3 Notable Distinctions:** 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 (KGGH-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 renowned Adyar Cancer Institute which now also functions as the State level Cancer Institute with Central and State support. Charles Donovan in 1903 had the distinction of independently discovering the parasite Leishmania Donovanii in Madras Medical College (which causes Kala-azar



disease) along with William Boog Leishman from Netley, England.

**2.4** 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 erstwhile dental wing of the Madras Medical College was inaugurated on 10<sup>th</sup> 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". It now has a functional state of operation theatre with advanced facilities.

**2.5** 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.

**2.6 Origin of Other Departments:** 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. 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.

## **2.7 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 State thus also

has the distinction of being the pioneer in establishing systems in Public Health and Preventive Medicine. The Public Health and Preventive Medicine department is functioning with 42 Health Unit Districts each unit under a Deputy Director of Health Services.

**2.8 History of Tamil Nadu Nurses and Midwives Council:** A council called the Madras Nurses and Midwives Council was formed by the assent of the British Government. This vital legislation for regulating the nursing training and practice was passed by the Legislature on 7th May 1926 and signed by the Governor General on the 9th day of June 1926. The same was published in Fort St. George Gazette on the 29<sup>th</sup> day of June 1926. The Madras Nurses and Midwives Act III of 1926 came into force on the 14th day of February, 1928. It is the earliest piece of legislation on Nursing in the whole of South East-Asia. Later in 1934 the Madras

Nurses and Midwives Council Act was amended under the Act VII of 1934. Subsequently after amendments it was named as "The Tamil Nadu Nurses and Midwives Act, 1926" (Tamil Nadu Act XXVI of 1960) and the assent of the Governor was received on 6<sup>th</sup> December 1960 and published in Fort St. George Gazette on 14<sup>th</sup> December 1960.

**2.9 Corporations and Societies:** 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. These are in addition to the State and District Blindness Control Societies which followed the National Programme in 1976 and expanded at the district level since 1994-95. The Revised

National Tuberculosis control programme is under implementation since 2002.

**2.10** To implement the National Rural Health Mission Programme, 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.

**2.11** The organ transplantation which initially started as early as 1995 after enactment in 1994, was later expanded with a hospital based organ sharing in the year 2000. This further got expanded with State participation in a systematic fashion in 2008. To give a fillip to the organ transplantation, Transplant Authority of Tamil Nadu (**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.

**2.12** 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 directorates and board functioning under the administrative control of the Health and Family Welfare department are as follows:

- Directorate of Medical Education focusing on tertiary care and medical education.
- Directorate of Medical and Rural Health Services focusing on secondary care and regulations as appropriate authority.
- Directorate of Public Health and Preventive Medicine focusing on preventive and public health.
- Directorate of Indian Medicine and Homoeopathy focusing on the Indian systems namely Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy.



- Directorate of Family Welfare focusing on family planning related initiatives.
- Directorate of Food Safety and Drugs Control focusing on food safety and standards and also on drug regulation and licensing as per the respective Central Acts and Administration through two different wings respectively.
- Directorate of State Health Transport focusing on the maintenance and upkeep of the vehicles under the State Health department.
- Medical Services Recruitment Board focusing on the recruitment of the various cadres in the Health sector in a speedy and transparent manner.

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** To ensure focused, speedy and decentralized implementation a number of initiatives across the Directorates such as National Health Mission - State Health Society, Tamil Nadu State AIDS Control Society, Tamil Nadu Blindness Control Society, the Revised National Tuberculosis Programme, National Mental Health Programme, National Vector Borne Diseases Control Programme, Universal Immunization Programme and School Health Programme among others are implemented.

**3.3** 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) at a cost of Rs.1,634 crore. Tamil Nadu has also got an in-principle approval for the Tamil Nadu Health Systems Reforms Project at an estimated cost of Rs.2,658 cores from the World Bank and the preliminary works are underway. These missions, programmes and projects have been explained in detail in subsequent chapters.

### **Councils**

**3.4** 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**

**3.5** 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 are directly managed by the Government. These form the backbone of

the health care. It ranges from the grass root level - 8,706 Health Sub Centres catering to an average population of 5,000 to the 1,806 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. In addition, 460 Urban Primary Health Centres across the Urban areas in the State including Chennai Corporation and 15 Community Health care centres in Chennai Corporation are also functional.

- 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. These include 10 ESI Hospitals and 216 ESI dispensaries.

- 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**

**3.6** 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** Provision of quality medical care to the public and the provision of qualified human resources are the twin functions of the Directorate of Medical Education. While the Directorate of Public Health and Preventive Medicine is providing health care facilities for the patients at the primary level and the Directorate of Medical and Rural Health Services at the Secondary level, the Directorate of Medical Education, functioning from July 1966, is providing health care facilities for the patients at Tertiary level. The directorate is also developing teaching, training and research programmes in the Medical field besides administration of Government Medical Colleges and teaching hospitals. In addition to the above objectives, it involves effective supervision of the Selection Committee for admission to Medical, Para



Medical and Nursing Courses. The Directorate of Medical Education serves as the tertiary health care provider and plays a pivotal role in providing quality medical facilities to cater the health needs of the State.

### **Administrative Structure**

**4.2** For the administration of the Government Medical Colleges and the tertiary care hospitals and Super Specialty Hospital attached to the Directorate, the Director of Medical Education is the head. The details of Government Medical Colleges and Government Medical allied Institutions under the control of Directorate of Medical Education along with their administrators 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 Thiruvoteeswarar 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 Nursing and Pharmacy Colleges

- Director, Tamil Nadu Multi Super Speciality Hospital, Omandurar Government Estate, Chennai

**4.3** Currently, the total bed strength in the Government Medical College Hospitals and allied Institutions is 36,881 and an average of 89,479 out-patients attend these hospitals per day and 31,310 persons are treated as in-patients per day.

**4.4** The intake capacity of the Government Medical Institutions for Under Graduate and Diploma courses are furnished hereunder:

| <b>Name of the Course</b>  | <b>Number of Seats*</b> |
|----------------------------|-------------------------|
| MBBS.                      | 2,900                   |
| BDS.                       | 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)               | (108+10)118 |
| 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)                 | 7,251       |

(\*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:

| <b>Courses</b>                | <b>Number of Specialities</b> | <b>Total intake capacity*</b> |
|-------------------------------|-------------------------------|-------------------------------|
| P.G.degree(Medical)           | 24                            | 1,250                         |
| P.G.diploma(Medical)          | 15                            | 396                           |
| M.D.S.(Dental)                | 8                             | 42                            |
| Higher specialities           | 17                            | 208                           |
| M. Pharmacy                   | 4                             | 58                            |
| M.Sc.(Nursing)                | 5                             | 65                            |
| M.Phil.(Clinical Social work) | 1                             | 15                            |
| M.Sc.(Molecular Virology)     | 1                             | 21                            |
| M.Phil(Clinical Psychology)   | 1                             | 8                             |

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

**4.6** The details of the total number of seats surrendered by private self-financing colleges affiliated to Tamil Nadu Dr.M.G.R University for allotment by the Government are as follows:

| <b>College</b>                     | <b>No. of Colleges</b> | <b>Number of Seats*</b> |
|------------------------------------|------------------------|-------------------------|
| Medical College                    | 15                     | 1,207                   |
| Dental College                     | 18                     | 1,045                   |
| Pharmacy College (B.Pharm.)        | 34                     | 1,405                   |
| Physiotherapy College (BPT)        | 22                     | 663                     |
| Nursing College (B.Sc.)            | 153                    | 5,408                   |
| Occupational Therapy College (BOT) | 3                      | 82                      |
| D.Pharm to B.Pharm                 | 30                     | 184                     |
| Post Basic B.Sc.(Nursing)          | 48                     | 1,027                   |

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

#### **4.7 Admission Policy in Medicine and Opposition to National Eligibility cum Entrance Test (NEET):**

The Government of Tamil Nadu has been consistent in opposing NEET exam for admission to Medical and Post Graduate Medical courses. The Government of India has made amendments to the Indian Medical Council Act, 1956 and Dentists Act, 1948 by inserting section 10(D) to mandate NEET exams for admission to all medical and dental courses throughout India. In order to protect the right of the State in medical admission and to sustain the existing admission policy in the State of Tamil Nadu, two bills viz. L.A. Bill No.7 of 2017 – Tamil Nadu Admission to MBBS and BDS courses Act, 2017, and L.A. Bill No.8 of 2017 – Tamil Nadu Admission to Post Graduate courses in Medicine and Dentistry Act, 2017 were unanimously passed in the floor of Assembly. With the approval of Hon'ble Governor, the Government of Tamil Nadu, the said bills were



forwarded to Government of India for obtaining assent of the President of India under Article 254(2). As the assent of the President of India was not obtained the Government took a policy decision to allocate 85% of State quota MBBS/BDS seats to students who have studied in Tamil Nadu State Board and the same was incorporated in prospectus for admission to MBBS/BDS course 2017-18 session through an executive order. But the said order was challenged in various Writ Petitions. The Government has taken all legal measures to protect the above said policy in the interest/welfare of students of Tamil Nadu. This Government order was quashed in the High Court of Madras and the Supreme Court. To get exemption from NEET efforts were also taken to get an ordinance approved. Finally, based on the directives of Supreme Court of India, dated 22.08.2017, the admission to MBBS and BDS course was made based on NEET Marks adopting

existing Rules of Reservation in Tamil Nadu. The Government will continue to oppose NEET as a matter of policy and also through legal means.

**4.8 New Government Medical Colleges and increase of Under Graduate and Post Graduate medical seats:** Five new Government Medical Colleges have been established at Sivagangai, Thiruvannamalai, Omandurar Government Estate, Chennai, ESIC Hospital, Coimbatore and Pudukottai during the last six years. On account of strenuous initiatives taken by the State Government, totally 1,000 MBBS seats have been increased in the last six years. At present, there are 2,900 MBBS seats in the Government Medical Colleges. The details of increase of MBBS seats are furnished below:

| <b>Sl. No.</b>  | <b>Name of the Government Medical College</b>                              | <b>No. of MBBS seats increased</b> |
|---|--|------------------------------------|
| <b>New Medical Colleges</b>                                     |  |                                    |
| 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                                |
| <b>Increase of seats in existing Government Medical College</b> |  |                                    |
| 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<br>Kumaramangalam<br>College, Salem     | Mohan<br>Medical | 25         |
| 11 | Government KAP<br>Medical College, Tiruchirappalli | Viswanatham      | 50         |
| 12 | Government<br>Medical College, Thoothukudi         | Thoothukudi      | 50         |
|    | <b>Total</b>                                       |                  | <b>960</b> |

In IRT Medical College Perundurai, 60 MBBS seats have been increased to 100 thus increasing the overall seats to 1,000 since 2012-13. At present 22 Government Medical Colleges are functioning in the 18 Districts. For establishing the new Government Medical College at Karur, Government have already issued orders for an annual intake of 150 MBBS students and Government have sanctioned a sum of Rs.229.46 crore for the construction of buildings for college / hospital in the allotted new site and construction of college and hospital buildings is under progress. In addition to this, increase of 345 MBBS seats in the four

Government Medical Colleges at Tirunelveli, Madurai, Coimbatore and Kanyakumari are under consideration in the coming years. Government will examine the establishment of new Government Medical Colleges, in a phased manner in the remaining districts where there is no Government Medical College.

**4.9 Starting and increase of Post Graduate seats:** Apart from the available 396 Diploma seats, the Post Graduate seats (MD and MS) which was 688 during 2011-12 have since been increased to 1,250 including an unprecedented 462 seats in the past two years alone.

**4.10. Starting/Increase of Para Medical certificate course and Diploma course:** In the academic year 2017-18, the following courses have been sanctioned to the following Government Medical colleges:

| <b>Course</b>                    | <b>Name of the College</b>                         | <b>No. of Seats</b> |
|----------------------------------|--|---------------------|
| Para Medical Certificate Courses | Government Dharmapuri Medical College, Dharmapuri. | 20                  |

| <b>Course</b>                | <b>Name of the College</b>  | <b>No. of Seats</b>                                   |
|------------------------------|---|---|
| Para Medical Diploma Courses | Government Medical College, Omandurar Government Estate, Chennai. | seats increased from 50 to 135 (increase of 85 seats) |
|                              | Government Dharmapuri Medical College, Dharmapuri.                | seats increased from 50 to 120 (increase of 70 seats) |
|                              | Government Pudukottai Medical College, Pudukkottai                | 100 seats (starting of new course).                   |

**4.11. Super Speciality Services in Government Hospitals:** Apart from provision of Super specialty services in the existing

Government Medical college Hospitals at the following places additional exclusive super specialty facilities are being provided. Tamil Nadu Government Multi Super Speciality Hospital, Chennai is functioning with the 400 bed strength with all infrastructures, manpower and with sophisticated equipments for the welfare of the poor and needy patients. 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 with all infrastructures, manpower, and with sophisticated equipments. 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. The building works are structurally completed and finishing works are being carried out in war footing manner.

#### **4.12 Out Patient Block at Institute of Child Health and Hospital for Children under Japan International Co-operation Agency (JICA Scheme):**

A new out-patient block at the Institute of Child Health and Hospital for Children, Chennai has been established at a cost of Rs.90.09 crore and the building 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. The Building has been constructed with basement + 3 floors with the facility to accommodate Paediatric Medicine (Male & Female) OPD, Nephrology, Hematology, Medical New Born, Clinical laboratory, Pulmonology, TB, School Education cell, Adolescence, Rheumatology, Diabetics, Endocrinology, Genetics, Dermatology etc.



### **4.13 Amma Master Health Checkup and Amma Women Special Master Health Checkup:**

The priceless “Amma Arokiya Thittam” is being implemented without any fees in all the blocks in Tamil Nadu covering 25 diagnostic tests. In addition to the above scheme, 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<br>(Rs.1,000) (Rupees One Thousand only) | Package - II<br>(Rs.2,000)<br>(Rupees Two Thousand only) | Package - III<br>(Rs.3,000)<br>(Rupees Three Thousand only) |
|--|--|---|
| Complete haemogram, ESR, Urine analysis              | Package I + Echo cardiogram, PSA, Thyroid                | Package II + Digital Mammogram, Dexa Scan Bone profile      |
| Blood sugar F&PP,Urea, Creatinine, Uric Acid         |  |   |

|   |                      |  |
|---|----------------------|--|
| <u>Lipid profiles</u><br>Total cholesterol, HDL, LDL,<br>Triglycerides, Total<br>cholesterol / HDL ratio        | profile and<br>HbA1C | (Vitamin D,<br>Calcium,<br>Phosphorous<br>and PTH) |
| <u>Liver Function Test</u><br>Serum Bilirubin (total and<br>direct) AST, ALT, SAP, Total<br>protein and albumin |                      |  |
| HbsAg   |                      |  |
| Blood grouping and typing   |                      |  |
| ECG   |                      |  |
| X-Ray chest   |                      |  |
| USG abdomen   |                      |  |
| Pap smear   |                      |  |

In order to provide/extend Amma Master Health Checkup and Amma Women Special Master Health checkup in the southern districts, Government accorded permission and financial sanction to establish Amma Master Health Checkup and Amma Women Special Master Health checkup at Coimbatore, and Tirunelveli

Government Medical College Hospitals and Government Rajaji Hospital, Madurai at a cost of Rs.10 crore to each hospital (total cost Rs.30 crore). Hon'ble Chief Minister has inaugurated this scheme in Government Omandurar Multi Super Speciality Hospital, Chennai on 08.06.2018.

**4.14 Additional Building for the existing Diabetology Block in Government Stanley Hospital, Chennai:** Government have sanctioned a sum of Rs.2.09 crore towards the construction of additional building (third floor) over the existing Diabetology Block in Government Stanley Hospital, Chennai. Construction work will be started soon after the scrutiny of tender process.

**4.15 Construction of building for School of Nursing at Thanjavur:** Government have issued Administrative and Financial sanction for construction of building for School of Nursing at

Thanjavur Medical College Hospital, Thanjavur, for Rs.7.87 crore with the provision of Library, Office, Lecture Hall, Nutrition Lab, Faculty Room, Computer Lab, Community Health Nurse Lab, Common Room for Boys and Girls etc.

**4.16 Position of the Government of Tamil Nadu on the draft National Medical Commission Bill, 2017:** While Tamil Nadu does agree that the Medical Council of India needs urgent reforms, especially with regard to how the members are elected and that the Government should have a greater say in its functioning, mainly from point of view of implementation of the policy directives aimed at improving availability of health care and the need for ensuring that it is transparent in its functioning and to infuse flexibility needed with regard to rigid regulations which are preventing setting up of new colleges, the State feels that the present Bill has not addressed the main

concerns at all and in the present form would be counterproductive and against the interests of both the Centre and the States. The Bill in its present form entirely centralises the structure of the proposed Commission which is totally unacceptable. In spite of health being a State subject as per our Constitution the Bill has totally diluted the role of the States, in the name of reforms without addressing the objections and concerns of the States in addressing the challenges in the Medical Education sector and the broader health sector.

**4.17** Precisely for these reasons, Tamil Nadu has been expressing strong reservations on certain provisions contained in the proposed National Medical Commission Bill, 2017, originally drafted by a Committee under the Chairmanship of the Vice-Chairman, NITI Aayog to replace the Indian Medical Council Act, 1956. While there is a consensus on the need for

reforms in the present regulatory mechanism for medical education, the State is of the firm view that the draft National Medical Commission Bill portrays a complete lack of understanding of the ground realities of our country and the principles of federalism enshrined in the Constitution. The draft Bill, in its present form, greatly abrogates the powers of the States on the subject, "Education including Technical, Medical Education and Universities" which is in the List III (Concurrent List) in the Seventh Schedule of the Constitution. The proposed Bill effectively puts the decision making powers with regard to medical education solely with the Government of India and seeks to completely undermine the powers of the States, which is undesirable. The State Governments would then have no role to play in policy issues relating to manpower planning, curriculum and course design as well as approval of new medical institutions in the State. This is completely unacceptable.

**4.18** States and in particular progressive States like Tamil Nadu, are very key stakeholders in the area of Medical Education. Tamil Nadu has never compromised on the requirements of faculty, infrastructure and equipment and other conditions mandated under the Indian Medical Council Act, 1956 and the regulations there under for Under Graduate and Post Graduate examinations. Due to the State's policies and systematic investments, it has been successful in ensuring that adequate human resources are available in the medical field and has been able to produce world class doctors. Tamil Nadu has over a lakh doctors registered in the State Medical Council. Currently, Tamil Nadu has the largest number of 22 Government medical colleges with 2,900 MBBS seats. In addition it has 11 self financing private medical colleges with 1,450 MBBS seats and 10 deemed universities with 1,350 MBBS seats. Apart from this, the Raja Annamalai University also runs a

medical college with 150 seats. Hence, Tamil Nadu is vitally interested in any proposed reform to the regulatory framework relating to medical education, since the interests of the State and of the large investments made in the field have to be protected and effectively leveraged. Further, Tamil Nadu as a progressive State, which has introduced many innovations in the area of medical education, views that it must continue to have necessary policy autonomy in this space.

**4.19** Our State has formally recorded its views against passing the bills in Parliament without addressing its legitimate concerns.

**4.20** The State would continue to strive to improve the tertiary care facilities and also augment human resources, faculty and equipment.



## **Chapter - 5**

### **MEDICAL AND RURAL HEALTH SERVICES**

**5.1** The Directorate of Medical and Rural Health Services is proud to have taken yet another step ahead with an experience of 94 years in the provision of multifarious speciality medical care to the public through its secondary care institutions in the State of Tamil Nadu. With 29 District Headquarters Hospitals, 206 Taluk Hospitals, 67 Non-Taluk Hospitals, 7 Women and Children Hospitals, 11 Dispensaries, 2 Tuberculosis Hospitals, 7 Leprosy Hospitals and 1 Rehabilitation Institute and Mental Health (RIMH) and also having strengthened the maternity and child welfare exclusively, by executing the services of Comprehensive Emergency Obstetric and Newborn Care (CEmONC) units in 104 Government Hospitals and having functional Newborn Stabilization Units (NBSUs) in 119 Government Hospitals and

Sick Neo-Natal Care Units (SNCUs) in 51 Government Hospitals. The Directorate of Medical and Rural Health Services (DM&RHS) has been instrumental in making specialist secondary care accessible to people of Tamil Nadu.

**5.2** Further the medical services like Medicine, Surgery, Obstetrics and Gynaecology, Ophthalmology, E.N.T, Venerology, Orthopaedics, Anaesthesiology, Child Health, Dental, Psychiatry, Ambulance Services, Laboratory Services, Leprosy, Tuberculosis, Diabetology, Cardiology and Non-Communicable Disease (N.C.D) are also extended with high end technologies by the hospitals under the directorate. The following services are also being offered by this directorate:

- Accident and Emergency Services, Family Welfare and Maternity and Child Health, T.B. Control and Blindness Control Programmes,

Tamil Nadu State Illness Assistance Society activities and District Mental Health Programme. Thus the Directorate of Medical and Rural Health Services is the trend setter in the field of health services.

**5.3** To make the scheme successful and to get the maximum out reach, monitoring of the implementation of such schemes is absolutely necessary and keeping this in mind, the Directorate of Medical and Rural Health Services has introduced unique monitoring system, both in the Directorate as well as district level, where Hospital Management Information System is being implemented at the directorate level and Hospital Management System at the secondary level.

## ADMINISTRATIVE STRUCTURE

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

|  |                                      |
|--|--------------------------------------|
| Deputy Director of Medical Services<br>(TB)      | TB Control Programme in the District |
|  |                                      |
| Deputy Director of Medical Services<br>(Leprosy) | Leprosy Control Programme            |

#### **5.4 Other Programmes and**

**Responsibilities:** The Revised National Tuberculosis Programme, District Mental Health Programme, Accident and Trauma Care, Tamil Nadu State Illness Assistance Society and important Acts such as Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition and Sex Selection) Act, 1994, Human Organ Transplantation Act, 1994, etc., which are being implemented by the directorate are explained in the forthcoming chapters.

**5.5 Ongoing Development Activities:** To facilitate better health care delivery in the hospitals, the Government during the year 2017-18 created one post of Assistant, one post of Laboratory Technician Grade-II, nine posts of Chief X-Ray Technician and one post of Law Officer.

**5.6** In order to provide better multi speciality services, the Government have issued orders for the construction of dedicated eye ward with Operation Theatre at Government Hospital, Vaniyambadi, Vellore District, construction of new buildings by demolishing old buildings at Government Hospital, Arakkonam, Vellore District, construction of compound wall to the 50 bedded Rehabilitation Institute cum Mental Health Hospital, Erwadi, Ramanathapuram District, construction of new buildings at Government Hospital, Orathanadu, Thanjavur District, construction of combined office building

at Joint Director of Health Services building in Dharmapuri District and an Occupational, Social and Environmental Health Wing was created in this directorate at a total cost of Rs.12.37 crore.

**5.7** This directorate serves as a bridge between the primary care under the public health wing and tertiary care under the medical education directorate providing the necessary treatment services within the district itself in Taluks and District Headquarters.

## Chapter - 6

### **PUBLIC HEALTH AND PREVENTIVE MEDICINE**

*'Public Health is the science and art of preventing disease, prolonging life, and promoting health through the organized efforts of society'*

**6.1** Public health identifies, measures, and monitors health needs and trends at the community levels, locally and globally through surveillance of diseases and risk factor trends. Functions of Public health include prevention and control of diseases and their progression through promotion of healthy lifestyles and healthy habits, promotion of healthy and hygienic environment including safe water and food, health education and community mobilization, empowering public particularly women to make healthy decisions, preventive measures including



immunization, surveillance and monitoring, organizing high quality community based health services, camps and campaigns, investigation of health problems including infectious disease outbreaks, planning and preparation for natural and man-made disasters, reducing inequities among different regions and population groups for reaching the unreached, formulation of public health policies and strategies, development of dedicated and competent public health work force, public health infrastructure and operational research. The Directorate of Public Health and Preventive Medicine of Tamil Nadu, formed during 1923, first in the country, is engaged in the above said context in protecting and promoting the health of the people. Prevention and control of communicable and non-communicable diseases like diabetes, hypertension and cancer, organizing and provision of community based maternity and child health services including immunization and

family welfare are the three primary activities of the directorate.

**6.2** The institutions which function under this directorate include:

- Health Sub Centres
- Primary Health Centres
- Urban Primary Health Centres
- 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 Institute of Public Health,  
Thiruvarankulam
- Institute of Vector Control and Zoonoses,  
Hosur
- Health Visitor Training School, Triplicane
- ANM Training Schools

## 6.3 Administrative Structure

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

**6.4** The department has 1,806 Primary Health Centres (PHCs) in rural areas including 422 Upgraded PHCs, 320 Primary Health Centres in urban areas other than Chennai and 8,706 Health Sub Centres (HSCs). 140 PHCs are functioning in Chennai Corporation limits.

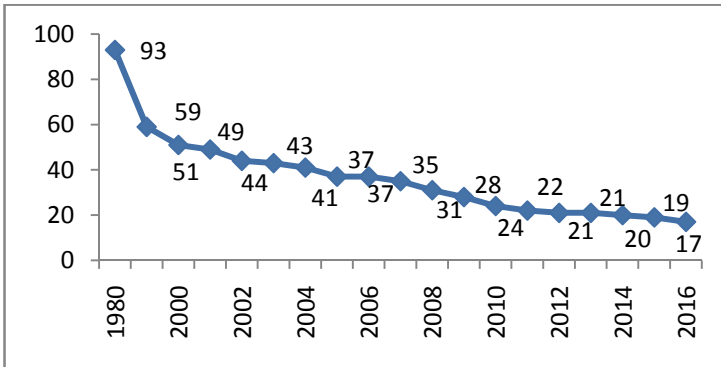
**6.5 Infant Mortality Rate (IMR):** The current level of IMR in Tamil Nadu for the year 2016 is 17 per 1,000 live births as per the Sample Registration System(2016) survey. The State ranks as the second lowest among the major States in the country. The State is taking multi-pronged efforts to bring down the Infant Mortality Rate by focusing on the components such as the neo-natal mortality rate etc. The goal is to ensure that all preventable causes of infant deaths are eliminated by appropriate interventions.

## 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 | 63    | 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         |
| 2016 | 34    | 17         |

**Source:** Sample Registration System (SRS) Bulletins

## Trends in IMR in Tamil Nadu



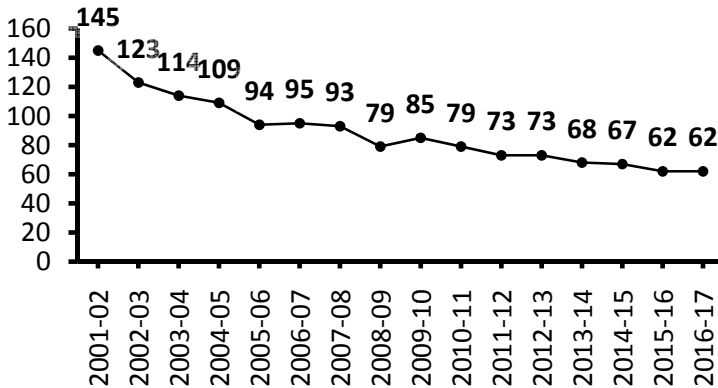
**Source:** Sample Registration System (SRS) Bulletins.

As per the State data based on the recorded births this figure is well below the sample survey results.

**6.6 Maternal Mortality Ratio (MMR):** MMR is calculated as the number of maternal deaths during a given year per 1,00,000 live births. Monitoring MMR helps to understand the obstetric risks associated with each pregnancy and the quality of the health care system in a country. Maternal Mortality Ratio represents the

most sensitive and key indicator of women's health and their status in the society.

### Trend in Maternal Mortality Ratio



### 6.7 Initiatives for reduction of IMR and

**MMR:** Based on the Healthy States Progressive India report, the State realises that unless intensive efforts are taken to reduce low birth weight children and improve the nutritional status of pregnant women sustained improvements in these parameters would become tougher. Hence as part of the



Vision 2023, the public health policy has been focused 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 high level of public awareness on family planning and good nutrition.

**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 which have later been adopted by many other States in India. The inter district disparities and the intra district challenges are also being addressed by implementing need based local 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. The State has also announced the two nutrition kits for the pregnant women and also announced

that conditional grant is also extended to Higher Order Births with a view to encourage them to accept contraception to prevent further pregnancies which is expected to result in improving outcomes on these critical indicators.

## **Primary Health Care**

**6.9 PHC Infrastructure:** Tamil Nadu has 1,806 Primary Health Centres of which 1,670 PHCs are functioning in Government buildings, while 136 PHCs are functioning in rent/rent free buildings. 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. To improve the availability of Primary Health Care services to the urban poor, 320 PHCs are functioning under the control of the Directorate of Public Health and Preventive Medicine in urban areas. 140 Urban PHCs

are functioning in Chennai Corporation. The concept in urban areas is to have a facility for primary care for every 50,000 population and a Community Health Centre for every five lakh population.

**6.10 Health Sub Centres:** There are 8,706 HSCs in Tamil Nadu. While 6,878 HSCs are functioning in Government buildings, 1,828 HSCs are functioning in rented buildings. Further, multi-various steps have been taken to construct own buildings for remaining HSCs through NHM, SBGF and other resources. 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 (VHNs), a dedicated cadre to deliver community based maternal and child health services with public health competence, render services from the HSCs and outreach services in the villages. HSCs are the hub for delivering Maternal and Child

Health (MCH) and Family Welfare (FW) services to the people in the rural areas. HSCs are supported by Primary Health Centres (PHC), Community Health Centres (CHC), Hospital on Wheels (HoW) and School Health Teams. 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, Primary Health Centres (PHC) would serve as the first point for delivery of primary health care. Outreach services are provided through Urban Health Nurses (UHNs). UHN would provide preventive, promotive and curative health care services to households through routine outreach sessions, similar to VHNS in rural areas.

**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 visits towards achieving health goals under Sustainable Development Goals (SDG).

**6.12 Upgradation of Primary Health Centres:** At present 422 PHCs are upgraded, thereby covering all the blocks with an UG PHC. 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. Five doctors are posted to the Upgraded PHCs. Dental health care services are provided in 341 block level and selected Upgraded PHCs to treat dental ailments. The Government have planned to

provide dental health care services in all the upgraded and block level PHCs in a phased manner. Each Upgraded Primary Health Centre has an operation theatre, modern diagnostic equipment like Ultra Sonogram, ECG, Semi Auto Analyzer, cell counter, X-Ray and an ambulance.

**6.13 Polyclinics in Urban Areas:** With a view to provide specialist services at the doorsteps for urban poor, polyclinics are established in 96 PHCs including Chennai Corporation. These centres provide maternity and child care, NCD screening and follow up, family welfare, immunization, dental care and other essential specialist service with focus on Non-Communicable Diseases like diabetes and hypertension.

### **Other important Services and Programmes**

**6.14 Dr.Muthulakshmi Reddy Maternity Benefit Scheme:** Under the "Dr.Muthulakshmi

Reddy Maternity Benefit Scheme (MRMBS)" aimed at reducing IMR and MMR, the State Government has already enhanced the assistance from Rs.12,000/ to Rs.18,000/- per beneficiary. An amount of Rs.4,000/- from this assistance will be used for providing "**Amma Maternity Nutrition Kit**" comprising iron tonic and nutrition supplements to reduce anaemia amongst the pregnant women and improve the birth weights of infants. In the Budget Estimates of 2018-19, Rs.1,001.33 crore has been allocated for this flagship scheme. On an average, six lakh women benefit from the scheme every year.

### **Performance under the scheme**

| <b>Year</b> | <b>Amount Disbursed to Beneficiaries (Rs. in crore)</b> | <b>No. of Beneficiaries</b> |
|-------------|---|-----------------------------|
| 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         |
| 2017-18      | 640.68          | 7,14,717         |
| <b>TOTAL</b> | <b>4,337.38</b> | <b>46,72,115</b> |

### **6.15 Hospital on Wheels Programme:**

416 Mobile Medical Units, which now have necessary 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 seven years is given below:

| <b>Year</b>  | <b>Camps Conducted</b> | <b>Beneficiaries</b> |
|--------------|------------------------|----------------------|
| 2011-12      | 1,32,159               | 60,92,057            |
| 2012-13      | 1,84,098               | 1,06,99,782          |
| 2013-14      | 1,83,095               | 1,04,57,225          |
| 2014-15      | 1,87,615               | 1,19,52,880          |
| 2015-16      | 2,03,998               | 1,47,47,873          |
| 2016-17      | 2,05,452               | 1,65,23,783          |
| 2017-18      | 2,05,871               | 1,70,25,652          |
| <b>Total</b> | <b>13,02,288</b>       | <b>8,74,99,252</b>   |

Apart from their regular activities they have served an important role in establishment of mobile camps in the events of natural calamities like floods and cyclones and also during the fever outbreaks. During such times the vehicles are pooled from unaffected areas and visible camps based on needs are established in the affected districts thus providing easy access to

the affected people. Their services during such events and role in preventing epidemics have been widely appreciated in association with the other Public Health efforts.

**6.16 Promotion of Menstrual Hygiene:** The objectives of the programme are 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. 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.

**6.17 Deworming:** In order to control worm infestation and to improve health, as initiated in 2015, National Deworming Day (NDD) was conducted on 10<sup>th</sup> August 2017 followed by Mop-up day on 17<sup>th</sup> August and second round on February 26<sup>th</sup> and mop up on 1st March 2018. Under this initiative, children in the age group of 1-19 years are given deworming medicine (Tablet 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 each round 98 percent of targeted children were covered. Co-ordinated efforts of Health and Family Welfare Department with Education Department, Integrated Child Development Services (ICDS) and Rural Development resulted in the success of the programme. This initiative will help in controlling anaemia to a great extent among children.

**6.18 Amma Baby Care Kit:** This novel initiative is being implemented 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 announced in the floor of the

Assembly on 12.08.2014 by the Hon'ble Chief Minister and 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 2018, 13,31,565 delivered 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. 35,79,020 people have been screened up to March 2018, since the launch of the scheme in March, 2016. 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 CMCHIS. The scheme is now extended to the urban areas through the selected PHCs in urban areas.

**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 etc.

**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:** All mothers, particularly those who might lack 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. 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. These facilities help in ensuring

that lactating mothers are able to feed their babies in privacy thus ensuring that the benefits of breast feeding are not lost due to lack of proper facilities to breast feed in such public places during travel.

**6.23 Other Programmes:** A number of other activities and programmes not listed out in this chapter are described separately in various chapters relating to State Health Society, Communicable Diseases including the Universal Immunization Programme and Community Hygiene issues.

## **Chapter - 7**

### **FAMILY WELFARE PROGRAMME**

**7.1** The Family Welfare Programme is being implemented in the State to reduce birth rate to the extent necessary to stabilize the population at a level of consistent. The National Family Welfare Programme is recognized as a priority programme and is being implemented in Tamil Nadu since 1956 with 100% central assistance. This programme is implemented in coordination with various related departments. Tamil Nadu is considered as a pioneer in the implementation of the Family Welfare Programmes in the country. The focus in the State since mid nineties has shifted from a "Target Based Approach" to "Community Needs Assessment Approach" and 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 2011 census, the population of Tamil Nadu was 7.21 crore with decadal growth rate of 15.6%. It accounts for 6% of the country's total population. The demographic scenario of the State is furnished below:

| <b>Sl. No</b> | <b>Indicators</b>                             | <b>Current level</b>     |
|---------------|---|--------------------------|
| 1             | Crude Birth Rate(2016)                        | 15.0 / 1,000 population  |
| 2             | Crude Death Rate(2016)                        | 6.4 / 1,000 population   |
| 3             | Total Fertility Rate(2016)                    | 1.6                      |
| 4             | Infant Mortality Rate (2016)*                 | 17 /1,000 live births    |
| 5             | Maternal Mortality Ratio (2016-17 State HMIS) | 62 /1,00,000 live births |
| 6             | Natural Growth Rate                           | 0.86 %                   |

\*Source: SRS – 2016

### **7.3 Administrative Structure**

- Director
- Joint Directors
- Deputy Directors
- Chief Accounts Officer
- Deputy Director of Medical and Rural Health Services and Family Welfare (in all districts)

### **7.4 Family Welfare Services and Facilities**

**Providing Them:** 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

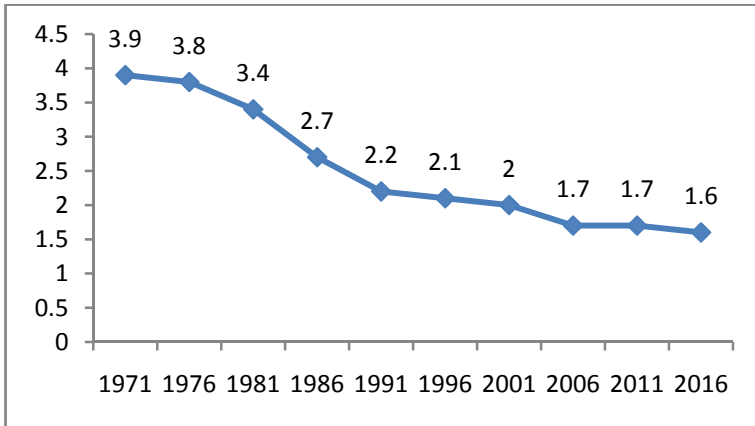
Medical Method of Abortion. The above services are provided in the following facilities:

|   |  |       |
|---|--|-------|
| 1 | Primary Health Centres                             | 1,421 |
| 2 | Community Health Centres                           | 385   |
| 3 | Urban Primary Health centres                       | 460   |
| 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 | Voluntary Organisations                            | 27    |
| 9 | Approved Private Nursing Homes                     | 2,136 |

## **7.5 Performance in Family Welfare Outcomes**

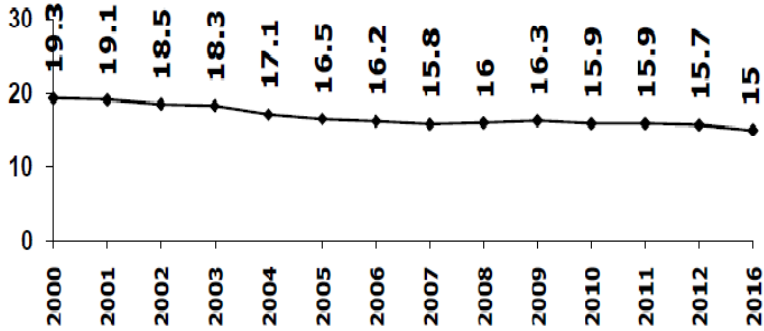
**7.5.1 Total Fertility Rate (TFR):** Total Fertility Rate means average number of children born to a woman in her reproductive age group. The current level of Total Fertility Rate in Tamil Nadu is 1.6 as per the Sample Registration System-2016. The State ranks as the lowest among the major States in the country.

## Trends in Total Fertility Rate (TFR)



**7.5.2 Crude Birth Rate (CBR):** Crude Birth Rate is number of live births per 1,000 population in a year. The current level of crude birth rate in Tamil Nadu is 15.0 per 1,000 population as per the Sample Registration System - 2016. The State ranks as the second lowest among the major States in the country.

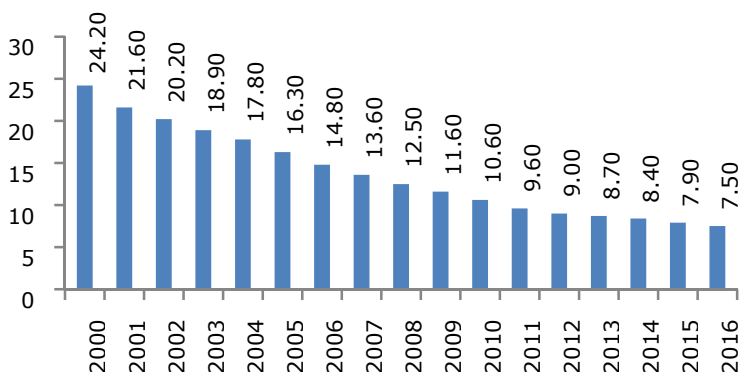
## Trends in Crude Birth Rate



**7.5.3 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 7.5 (2016)



## Trends in Higher Order Births



### 7.6 Schemes Implemented under the Family Welfare Programme

**7.6.1 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). NSV camps are conducted in all the districts to provide services to the needy people. The State needs to improve its performance and is taking all efforts towards it.

**7.6.2 Female Sterilization:** 22 Medical College Hospitals, 29 Government District Head Quarters Hospitals, 223 Government Hospitals, 376 Primary Health Centres, 26 Health Posts in Municipal Corporations and 2,136 Approved Private Nursing Homes in the State provide these services. Mostly delivered mothers having two and above living children are provided sterilization services before discharge from the hospitals.

**7.6.3 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 counselled and inserted IUCD immediately after delivery. Delivered mothers who are not fit for Tubectomy will be counselled and inserted

with PPIUCD. It is proposed to insert 2.5 lakh PPIUCD during 2018-19 and a sum of Rs.150/- will be paid to service providers and also Rs.300 will be paid to the acceptors for accepting per PPIUCD.

**7.6.4 Injectable Contraceptives (MPA):** The Injectable contraceptive, Medroxy Progesterone Acetate (MPA) given every three months as an injection, is 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. In 2017-18 training has been given to 1,252 Doctors and 2,144 Staff Nurse for injecting this contraceptive at a cost of Rs.63 lakh.

**7.6.5 Centchroman Pills (Chhaya):** Centchroman pill is a contraceptive pill introduced in all public health facilities in the

name of Chhaya to benefit more women at no cost. 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. In 2017-18, training has been given to 1,252 Doctors and 2,144 Staff Nurse for administering the oral pills, at a cost of Rs.86 lakh.

**7.6.6 Medical Termination of Pregnancy (MTP) Programme:** Approximately, 63,000 MTPs are performed in the Government and private institutions annually. About 37.41% of the MTPs are performed under Manual Vacuum Aspiration (MVA) technique. In order to provide safe abortion services to the needy mothers, the Doctors of PHCs and Government Hospitals are imparted MVA technique training in eight Medical College Hospitals, two Government Hospitals and one Non-Taluk Hospital which is a safe and simpler technique.

### **7.6.7 Reduction of Higher Order Births**

**(3 and above):** The Higher Order Births (3 and above) in Tamil Nadu was 7.5% in 2016. 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 made available with Village Health Nurse in the 120 blocks. These mothers are counselled to accept sterilization in the Government health facilities. Special Sterilization Drive and IUCD camps are being conducted in these 120 blocks and a sum of Rs.216 lakh has been sanctioned during 2017-18 to conduct the Special Sterilization Drive.

## **7.7 New Schemes**

### **7.7.1 Safe abortion practice in 385 blocks:**

Every year around 63,000 Medical Termination

Pregnancies (MTP) are performed in the State. Out of this, 60% of MTPs are performed in the private institutions and the remaining 40% of MTPs are performed in Government Institutions. Out of total performance, only 3% of MTPs are performed in the rural primary health centres.

In the rural areas, it is very much essential to strengthen the safe abortion practice. All the 385 blocks have to be strengthened under safe abortion practice to reduce the Maternal Mortality in rural areas and also prevent the unsafe abortion done by the quacks. The quacks are one of the root causes for maternal deaths. In view of this, it is planned to strengthen the safe abortion practice in all the block with the help of trained service provider in 24x7 manner and all the 385 blocks are identified as safe abortion centres.

**7.7.2 Strengthening of temporary Family Welfare methods in tribal areas:** Various

survey results reveal that some of the tribal population in the State is decreasing year after year. The tribal people are practicing some non-medical method to avoid pregnancy and it leads to maternal complications and also maternal mortality. To avoid these practices, it is proposed to strengthen the practice of temporary methods among the tribal people. The temporary methods of IUCD, OP, e-pill, centchroman pills will be popularized through special campaign in the tribal areas.

**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 1<sup>st</sup> 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.2,00,000 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 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 is 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   |

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 and annually about three lakh sterilizations are performed.

## **Chapter - 8**

### **MEDICAL AND RURAL HEALTH SERVICES**

#### **(Employees' State Insurance Scheme)**

**8.1** The administration of ESI dispensaries in this State is done by four Regional Administrative Medical Officers (ESI) functioning from Chennai, Coimbatore, Madurai and Salem.

**8.2** 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. The doctors and para-medical staff are placed from the Health and Family Welfare department. ESI Medical College at Coimbatore has been added recently to the Government Medical Colleges functioning under Government of Tamil Nadu. Of the 10 ESI hospitals in Tamil Nadu, two at Chennai viz, K.K.Nagar 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.

**8.3** 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 seven Medical Superintendents for State run seven ESI hospitals at Chennai Ayanavaram, Madurai, Sivakasi, Tiruchirappalli, Salem, Vellore and Hosur.

**8.4** While the ESI dispensaries provide primary care to the insured population and ESI hospitals provide secondary and tertiary care. All the four regions have Central Medical Stores (ESI) to supply drugs and dressings to various ESI dispensaries. 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** The Indian Systems of Medicine (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 & Naturopathy and also includes the popular Unani system of medicine and Homoeopathy. The State of Tamil Nadu, in the whole of India, is unique in its kind where in, it not only promotes and utilizes the native Tamil Medicine “Siddha” for the general upkeep of the Public Health but also equally promotes and utilizes the knowledge treasure that lay impregnated in other native systems of medicine of India namely Ayurveda, Unani, Yoga & Naturopathy and Alternative System of Medicine viz Homoeopathy. Further, these systems of medicine are offering affordable, cost effective and sustained relief to

various ailments and 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.

**9.2** The “Department of Indian Medicine and Homoeopathy” came into existence in 1970 and is responsible for teaching as well as for providing health care in five systems of Indian Medicine viz., Siddha, Ayurveda, Unani, Yoga & Naturopathy and Homoeopathy.

## ADMINISTRATIVE STRUCTURE

| <b>COMMISSIONER / DIRECTOR</b> |   |
|--------------------------------|---|
|                                |   |
|                                | <ul style="list-style-type: none"><li>• Joint Director</li><li>• Joint Director (Ex- Officio)</li></ul>   |
|                                | <ul style="list-style-type: none"><li>• Chief Scientific Officer / Director, Research and Development Wing</li></ul>  |
|                                | <ul style="list-style-type: none"><li>• Principals of Government Siddha, Ayurveda, Unani and Yoga &amp; Naturopathy, and Homoeopathy Medical Colleges</li></ul> |
|                                | <ul style="list-style-type: none"><li>• State Licensing Authority (Indian Medicine)</li></ul>   |
|                                | <ul style="list-style-type: none"><li>• Government Analyst, Drugs Testing Laboratory (Indian Medicine)</li></ul>  |
|                                | <ul style="list-style-type: none"><li>• Superintendent, Arignar Anna Government Hospital of Indian Medicine, Chennai</li></ul>                                  |
|                                | <ul style="list-style-type: none"><li>• District Siddha Medical Officers</li></ul>  |
|                                |   |
|                                | Siddha, Ayurveda, Unani, Yoga and Naturopathy, and Homoeopathy Dispensaries attached to Government Hospitals/ PHCs and Siddha wards in Government Hospitals.    |

**9.3** The main objectives of the department are:

- Bringing Indian system of medicine into the mainstream to give holistic health care and opening of co-located ISM wings at PHC levels in all the districts
- Improvement of educational institutions in Siddha, Ayurveda, Unani, Yoga & 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 Puramaruthuva Muraigal (external therapies of Siddha System of Medicine) like Varma, Thokkanam, Nasium etc., in all Siddha wings
- Establishing life style clinics in Yoga & Naturopathy in all Government Hospitals
- Encouraging research in these fields,

effective Information, Education and Communication campaign ensures that people are able to take advantage of these systems of medicine.

### **Medical Treatment**

**9.4** Currently there are 1,498 institutions under Indian Medicine and Homoeopathy under the Government set up and the breakup may be seen from the following table:

| <b>System</b>        | <b>No. of Medical Institutions</b> |
|----------------------|------------------------------------|
| Siddha               | 1,058                              |
| Ayurvedha            | 101                                |
| Unani                | 66                                 |
| Yoga and Naturopathy | 165                                |
| Homoeopathy          | 108                                |
| <b>Total</b>         | <b>1,498</b>                       |

## 9.5. Details of Bed Strength in the Indian Medicine Colleges and hospitals:

| Sl. No. | Name of the Institution  | Siddha | Ayurveda | Unani | Homoeo | Yoga & Naturopathy | Total |
|---------|--|--------|----------|-------|--------|--------------------|-------|
| 1       | Arignar Anna Govt. Hospital of Indian Medicine, Chennai - 106                  | 155    | 55       | 100   | -      | -                  | 310   |
| 2       | Hospital attached to Govt. Siddha Medical College, Palayamkottai               | 350    | -        | -     | -      | -                  | 350   |
| 3       | Hospital attached to Govt. Homoeopathy Medical College, Thirumangalam, Madurai | -      | -        | -     | 50     | -                  | 50    |
| 4       | Hospital attached to Govt. Ayurveda Medical College, Kottar, Nagercoil         | -      | 100      | -     | -      | -                  | 100   |
| 5       | Hospital attached to Govt. Yoga & Naturopathy Medical College, Chennai         | -      | -        | -     | -      | 100                | 100   |
| 6       | District Head Quarters Hospital, Tiruppur                                      | 25     | -        | -     | -      | -                  | 25    |
| 7       | District Head Quarters Hospital, Dindigul                                      | 25     | -        | -     | -      | -                  | 25    |
| 8       | District Head Quarters Hospital, Erode   | 25     | -        | -     | -      | -                  | 25    |
| 9       | District Head Quarters Hospital, Kancheepuram                                  | 25     | -        | -     | -      | -                  | 25    |
| 10      | District Head Quarters Hospital, Nagapattinam                                  | 25     | -        | -     | -      | -                  | 25    |
| 11      | Government Medical College Pentland Hospital, Vello                            | 25     | -        | -     | -      | -                  | 25    |
| 12      | Government Medical College Hospital, Nagercoil                                 | 16     | -        | -     | -      | -                  | 16    |
| 13      | Government Medical College Hospital, Sivagangai                                | 16     | -        | -     | -      | -                  | 16    |
| 14      | Government Medical College Hospital, Karur                                     | 16     | -        | -     | -      | -                  | 16    |

|    |   |      |      |      |     |      |      |
|----|---|------|------|------|-----|------|------|
| 15 | District Head Quarters Hospital,<br>Kumbakonam                      | 16   | -    | -    | -   | -    | 16   |
| 16 | District Head Quarters Hospital, Mettur<br>Dam, Salem               | 16   | -    | -    | -   | -    | 16   |
| 17 | District Head Quarters Hospital,<br>Namakkal                        | 16   | -    | -    | -   | -    | 16   |
| 18 | Government Medical College Hospital,<br>Tiruvavur                   | 16   | -    | -    | -   | -    | 16   |
| 19 | Government Medical College Hospital,<br>Trichy                      | 16   | -    | -    | -   | -    | 16   |
| 20 | Government Medical College Hospital,<br>Villupuram                  | 116  | -    | -    | -   | -    | 16   |
| 21 | District Head Quarters Hospital,<br>Virudhu Nagar                   | 116  | -    | -    | -   | -    | 16   |
| 22 | District Head Quarters Hospital,<br>Cuddalore                       | 115  | -    | -    | -   | -    | 15   |
| 23 | Taluk Hospital, Chidambaram,<br>Cuddalore District                  | 15   | -    | -    | -   | -    | 15   |
| 24 | District Head Quarters Hospital,<br>Pennagaram, Dharmapuri District | 15   | -    | -    | -   | -    | 15   |
| 25 | District Head Quarters Hospital,<br>Ramanathapuram                  | 15   | -    | -    | -   | -    | 15   |
| 26 | Government Medical College Hospital,<br>Thoothukudi                 | 15   | -    | -    | -   | -    | 15   |
| 27 | Non Taluk Hospital, Kadayanallur,<br>Tirunelveli District           | 15   | -    | -    | -   | -    | 15   |
|    | Total   | 9905 | 1155 | 1100 | 550 | 5100 | 1310 |

## **Medical Education under Indian Medicine and Homoeopathy**

**9.6** 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 & Naturopathy are being imparted in the 6 Government Colleges and 23 Self Financing Colleges as may be seen from the following details:

| <b>Sl. No</b> | <b>System</b>        | <b>No. of Govt. Colleges</b> | <b>No. of Private Colleges</b> |
|---------------|----------------------|------------------------------|--------------------------------|
| 1             | Siddha               | 2                            | 7                              |
| 2             | Ayurvedha            | 1                            | 4                              |
| 3             | Unani                | 1                            | 0                              |
| 4             | Yoga and Naturopathy | 1                            | 3                              |
| 5             | Homoeopathy          | 1                            | 9                              |
| <b>Total</b>  |                      | <b>6</b>                     | <b>23</b>                      |

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

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

**9.7** The 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 for admission |            |             |           |
|--------------|----------------------|--------------------------------|------------|-------------|-----------|
|              |                      | Government                     |            | Private     |           |
|              |                      | UG                             | PG         | UG          | PG        |
| 1.           | Siddha               | 160                            | 94         | 370         | --        |
| 2.           | Ayurveda             | 60                             | --         | 190         | --        |
| 3.           | Unani                | 60                             | --         | --          | --        |
| 4.           | Yoga and Naturopathy | 60                             | 15         | 240         | --        |
| 5.           | Homoeopathy          | 50                             | --         | 660         | 30        |
| <b>Total</b> |                      | <b>390</b>                     | <b>109</b> | <b>1460</b> | <b>30</b> |

Tamil Nadu has the unique distinction 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.

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

**9.8** At present Indian System of Medicine and Homoeopathy treatment facilities are made available under the policy of co-location in Medical College Hospitals, Multi Speciality 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.

### **Paramedical Human Resources**

**9.9** Two Diploma Courses (viz.) Diploma in Integrated Pharmacy and Diploma in Nursing Therapy courses of two and half year duration



and aimed at promoting the availability of institutionally qualified Pharmacists and Nursing Therapists under this system of medicine are being conducted at Government Siddha Medical College, Chennai and Government Siddha Medical College, Palayamkottai, Tirunelveli as may be seen from the following table:

| S.No         | Name of the Institution                                       | Number of seats                |                            | Total      |
|--------------|---|--------------------------------|----------------------------|------------|
|              |   | Diploma in Integrated Pharmacy | Diploma in Nursing Therapy |            |
| 1            | Government Siddha Medical College, Chennai                    | 50                             | 50                         | 100        |
| 2            | Government Siddha Medical College, Palayamkottai, Tirunelveli | 50                             | 50                         | 100        |
| <b>Total</b> |   | <b>100</b>                     | <b>100</b>                 | <b>200</b> |

## **State Drug Licensing Authority for Indian Medicine**

**9.10** The State Licensing Authority is the controlling as well as licensing authority for the grant or renewal of a license to manufacture for sale of any Ayurveda, Siddha and Unani (ASU) drugs and also approving authority for approval of institutions for carrying out tests on Ayurveda, Siddha and Unani drugs. The Ayurveda, Siddha and Unani Medicines are licensed by the State Licensing Authority (Indian Medicine) as per the Drugs and Cosmetics Act, 1940 and Rules, 1945 with effect from 29.11.2007. The District Siddha Medical Officers are designated as Drug Inspector (Indian Medicine) for the purpose of implementation of the provisions of Drugs and Cosmetics Act, 1940 and Rules, 1945 pertaining to renewal of license, inspection, sampling and prosecuting against erring manufacturers in respect of Siddha,

Ayurveda and Unani drugs. The State Licensing Authority (IM) organized 1<sup>st</sup> State Level Workshop on “Enforcement of Drugs and Cosmetics Act and Rules on ASU drugs for Drug Inspectors (IM)” on 1<sup>st</sup> and 2<sup>nd</sup> December of 2017, sponsored by Ministry of AYUSH, New Delhi and released the book titled “A Manual on Guidelines for Requirement of Ayurveda, Siddha and Unani (ASU) Industries”. The State Licensing Authority (IM) is entrusted with the responsibility of ensuring all aspects of the Drugs and Cosmetics Act, 1940 and Rules, 1945 is being implemented for streamlining the system to provide drugs of standard quality to the people.

### **Standardization of ISM Drugs and Strengthening of State Drug Testing Laboratory**

**9.11** Standardization of Herbal Medicine is a challenging task to scientific community as

natural products containing many variable chemicals depends on ecological factor where the drugs are grown. With a view to ensure the quality of various drugs manufactured from Herbal Plants and raw Drugs under the Indian System of medicine, the Drug Testing Laboratory (IM) has been established. The primary function of Drug Testing Laboratory (IM) is to test the quality of Statutory Samples lifted and sent by the Drug Inspector (IM) in discharging of their Statutory function under section 33G of Drugs and Cosmetics Act, 1940. The Laboratory has been conferred with the Statutory Status. Advance and modern equipment have been installed in the laboratory for the purpose of Standardization and quality control of ISM Medicine.

### **National Institute of Siddha**

**9.12** The National Institute of Siddha is functioning from the year 2005 at Tambaram,

Chennai. This is a joint venture between the Central and State Government. The institute which has 200 Beds for providing in-patient services and is providing treatment for an average of 1,500 out-patients per day also imparts 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 Arignar Anna Government Hospital of Indian Medicine, Chennai**

**9.13** The Arignar Anna Government Hospital of Indian Medicine was started in the year 1970 and it has a bed strength of 310. Treatment in all the five systems of Indian Medicine ie., Siddha, Ayurveda, Unani, Homoeopathy and Yoga & Naturopathy is offered to the public. During 2017-18, the hospital has treated 4,38,308 outpatients and 62,356 inpatients and

216 number of beds have been replaced with new beds in the hospital for the benefit of inpatients. Pathological and Biochemistry investigations are being carried out for the outpatients of this hospital. An order has been placed for the purchase of the fully automated Bio-Chemistry Analyser at the cost of Rs.10 lakh to provide more effective Laboratory Services. At present the blood tests for Dengue and other fevers are detected using Haematology Analyser which has been procured at a cost of Rs.3 lakh. Considering the demand, effectiveness and popularity of the Indian Medicines for prevention and treatment of Dengue and fever, awareness camps have been conducted in and around Chennai to prevent the spread of Viral and dengue fevers. During these camps the public were provided with Nilavembu Kudineer under the supervision of qualified Siddha practitioners. General Public have benefitted and Siddha Medicines like Vanga

Vennai, Amirtha Vennai and Thalaivali Paste were issued to prevent infection and viral fever. Similarly Nila Vembu, Papaya leaf juice and Kaba Sura kudineer were used in the treatment of various diseases like Dengue, Swine flu, other viral fevers etc., and these medicines have gained public acceptance and are playing a very important role in controlling the spread of communicable diseases and increasing immunity levels of general public when taken under the supervision of the qualified practitioners of the respective systems of medicine. Considering the need, a Boiler Plant has been installed for the improvement of Pharmacy services at the cost of Rs.60 lakh for speedy production of quality medicines and for perennial availability of medicine. The Construction of an in-house Quality Control Laboratory in the Pharmacy block attached to Arignar Anna Government Hospital of Indian Medicine, Chennai at a cost of Rs.30 lakh is nearing completion. An amount of

Rs.15 lakh was allotted under the National Accreditation Board for Hospitals (NABH) scheme for the purchase of equipments for the Quality Control Laboratory.

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

**9.14** Tamil Nadu Medicinal Plant Farms and Herbal Medicine Corporation Limited (TAMPCOL) was incorporated on 27<sup>th</sup> September 1983. One of the main objectives of the Corporation is to manufacture Siddha, Ayurveda and Unani 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 Corporation has two sales counters at Chennai and Palayamkottai. Apart from these two, one more sales counter in the campus of Ayurveda Medical College, Kottar, Nagercoil was inaugurated on 23.03.2018. To provide better medical guidance, and health consulting, a free Medical Consultancy Clinic has been created at the Corporate Office Building of the Corporation. The Free Medical Consultancy Clinic, have doctors from all streams of Indian System of Medicines namely Siddha, Ayurveda, Unani and Yoga & Naturopathy on rotation basis. 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 Government ISM & H Institutions. The Corporation supplied 11 medicines, under Amma Magaperu Sanjivi Kit for pregnant women to all the Siddha wings in

the State during the year 2016-17 and 2017-18 at a cost of Rs.5.50 crore. Supply of Sowbhagyasunti Lehiyam for Amma Baby Care Kit scheme for the newborn and maternal care is continuing. Tampcol has been entrusted with the supply of drugs under ISM, worth Rs.2.76 crore by Tamil Nadu Livestock Development Agency (TNLDA), Chennai for utilisation in Animal Husbandry Department. This is for the first time, Tampcol, since its inception, has bagged such a huge order. Tampcol has taken strenuous efforts in the production of Nilavembu Kudineer to the tune of 1,92,668 kg upto 31.03.2018 during the financial year 2017-18, which is the highest ever production compared to previous financial years, for the distribution of the same to Hospitals, AYUSH Institutions, Corporation/Municipality dispensaries coming under the ambit of Indian System of Medicines to prevent dengue outbreak.

**9.15** Government has started three year M.D. Course in Yoga & Naturopathy first time in three disciplines i.e. Naturopathy, Yoga and Acupuncture at Govt. Yoga & Naturopathy Medical College & Hospital, Chennai based on the important role of Yoga & Naturopathy in preventive, promotive and curative aspect of lifestyle disorders/diseases and realizing the need of the availability of highly qualified practitioners in the State. The first batch of the post graduate students was admitted in the academic year 2014-2015 and successfully completed their Course.

**9.16** "State AYUSH Society – Tamil Nadu" is formed to implement the Schemes sanctioned to the State under the National AYUSH Mission. The Schemes are implemented by the Society out of the funds received from the Government based on the sharing pattern in the ratio of 60:40. For the year 2017-2018 Schemes were approved for

an amount of Rs. 25.07 Crore in the State Annual Action Plan.

**9.17 Other Activities:** 35 Yoga & Naturopathy Lifestyle Clinics were created in 31 Government Taluk Hospitals and in 4 Government Hospitals in Chennai totalling 140 posts - Assistant Medical Officer, Therapeutic Assistant - both male & female, Multi-purpose Worker were created for these Clinics. 10 posts were created for Government Siddha Medical College, Chennai, to fulfill the Central Council of Indian Medicine (CCIM) norms in the cadre of Professor, Reader and Lecturer. A post of Junior Administrative Officer has also been created for the college to look after the administrative functions of the college. One part-time post of Teacher for communication skills in English has been created for Government Unani Medical College, Chennai at an honorarium of Rs.8000 per month. Construction of new inpatient ward

and outpatient department was completed and the building was inaugurated on 13.08.2017 and put to use in Government Homoeopathy Medical College, Tirumangalam, Madurai District. A special treatment for weight reduction for persons suffering from obesity is conducted in the hospital attached to Government Yoga & Naturopathy Medical College by means of providing natural foods, natural herbal treatment, mud bath therapy, hot steam bath therapy, plantain leaf bath. The post of Government Analyst, Drug Testing Laboratory (Indian Medicine) has been created. He is the Head of the Laboratory and all the activities including technical and day to day administrative works are supervised and controlled by him.

## **Chapter – 10**

### **FOOD SAFETY AND DRUG ADMINISTRATION**

#### **FOOD SAFETY**

**10.1** The Food Safety and Standards Act, 2006 is being implemented in the entire country with effect from 05.08.2011 by repealing the PFA Act 1954 and other seven related Food Laws. Tamil Nadu Food Safety and Drug Administration Department has been formed with effect from 22.12.2011 to implement the said Act and Rules in Tamil Nadu.

**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 the District level and 584 Food Safety Officers (385 for Blocks and 199 for Urban) to implement the new

Act. Six Food Laboratories established at Chennai, Thanjavur, Madurai, Salem, Coimbatore and Palayamkottai have been notified under the Food Safety Act for testing of food samples.

### **Licensing and Registration Certificate**

**10.3** As per the Food Safety and Standard Act, all the Food Business Operators whose annual income is more than Rs.12 lakh have to obtain License from Designated Officers and the Food Business Operators, with less than Rs.12 lakh annual income have to obtain Registration Certificates from the Food Safety Officers for their food establishment. License / Registration Certificate is being issued through online and payment of fees is also now made online (e-payment). To ensure the obtaining of License/ Registration Certificate by all the Food Business Operators as per the Act, awareness has been created among the Food Business

operators through newspapers and media in all the districts.

### **IEC & Awareness creation**

**10.4** To ensure consumption of safe food by all, awareness is being created among all stakeholders through multimedia awareness campaigns and meetings for Food Business Operators Associations, Consumer Organisations, School / College students and Anganwadi workers at District Level by the Designated Officers / Food Safety Officers. During the awareness programmes importance of food safety and standards is emphasised to Food Business Operators and consumption of safe and nutritious food and personal hygiene is imparted to all consumers.

### **Enforcement activities**

**10.5** Periodical inspections are made by Designated Officers / Food Safety Officers at



various manufacturing, transport, storage and retail outlets. Regular Surveillance of food products is also done by Food Safety officers and wherever required, food samples are lifted for analysis and based on the analysis report, legal action initiated.

### **Prohibition on tobacco products**

**10.6** Tobacco use is the foremost preventable cause of death and disease globally as well as in India. To prevent various types of cancer caused by consumption of smokeless tobacco, the manufacture, transport, storage, distribution and sale of gutkha, pan masala and any other food product containing tobacco or nicotine as ingredient has been prohibited in Tamil Nadu and necessary Gazette Notification has been issued with effect from 23.05.2013. District Level Surveillance Committee under the Chairmanship of District Collector with District Superintendent of Police, District Revenue

Officer, District Excise Officer, Deputy Director of Health Services, Regional Transport Officer, Chief Education Officer, District Social Welfare Officer, Municipalities / Corporations and Designated Officer of Food Safety Department as Member has been formed to enforce the ban order and monitor its implementation in every district. The ban order is extended every year and the latest notification extending the ban for a period of one year was issued on 23.05.2018. From June 2013 to March 2018, 567.62 Tonnes (5,67,616 Kg) of Gutkha and Panmasala to the value of Rs.17.08 crore were seized and destroyed.

### **Training and capacity building**

**10.7** Designated Officers and Food Safety Officers have to be trained and their skills updated from time to time to improve their technical knowledge to effectively perform the

field work and strictly enforce the legal provisions. Two days refresher training on important aspects like Inspection of FBOs, Laws and Prosecution of cases and consumer awareness was organised for all Designated Officers / Food Safety Officers from October 2017 to December 2017 in 10 batches.

### **Complaint Redressal**

**10.8** A grievance and complaint redressal system is important for handling issues relating to unsafe, substandard and mislabeled food products received from consumers. The department has created a Consumer complaint redressal system using a separate e-mail address [unnavupukar@gmail.com](mailto:unnavupukar@gmail.com) and a whatsapp mobile number 9444042322. They are popularized through newspapers, mass media and social media to reach all categories of people. Any complaint received is acted upon

within 24 / 48 hours and feedback sent to the complainant.

## **Milk**

**10.9** State level and District level steering committees are constituted to monitor the implementation of Food Safety Act, 2006 and ensure safe food to all. To strengthen the monitoring and curb adulteration of milk and milk products, in the State Level Steering Committee, Director of Milk Production and Dairy Development and in the District Level Steering Committee, Deputy Registrar (Dairy) have been included as members. Food Safety and Standards Authority of India has provided Electronic Milk Adulteration Tester (EMAT), which enables for spot testing of milk and analysis of milk parameters brought by consumers instantaneously. EMAT was used for surveillance and creating awareness on quality of Milk in eight districts by organizing a week

long campaign in each district for testing of Milk brought by consumers. During this campaign, 3,467 samples were tested, out of which four samples found unsafe, 499 samples substandard.

## **Oil**

**10.10** Edible Oil is an important food product where complaints of adulteration and misbranding have been repeatedly received from the consumers. To monitor the quality of edible oil and to prevent the adulteration in edible oils, State Level Committee has been constituted by the commissioner with Deputy Director at Head Quarters and six District Designated Officers as committee members. The first meeting was held on 27.11.2017 at the Office of the Commissioner of Food Safety at Chennai. All issues in manufacturing, transport, storage and vending of edible oil was discussed in that meeting. Based on the deliberations a detailed guidelines

to all enforcement officials to create awareness among consumers / Food Business Operators and DO's and Dont's for manufacturers of edible oil and non-edible oil was issued for strict compliance.

### **Plastic rice complaint found false**

**10.11** Complaints were received from consumers on whatsapp complaint number (9444042322) and news items in media channels that Plastic Rice is sold in some shops and cooked rice in some catering units/hotels. Based on this information all the Designated Officers / Food Safety Officers were instructed to inspect all rice manufacturing units and retail shops in their area. A total of 3,124 shops were inspected and suspected samples were sent for lab analysis. On Testing 34 Act samples and 101 Surveillance samples in the Laboratories, no sample found as Plastic Rice from the reports. All the Designated Officers / Food Safety Officers

have been instructed to regularly monitor and take up surveillance in their areas.

## **Safe and Nutrition Food at School**

### **SNF@School**

**10.12** Safe and Nutritious food at school is a nation-wide campaign launched by FSSAI to inculcate the habit of eating safe and eating right among school children, who are the most susceptible to food-borne diseases due to lack of awareness and experimenting with all kinds of food at school. 'Catch them young' is the approach to change behaviours and habits among children and for taking the message of food safety to their homes. Tamil Nadu Food Safety Department has initiated the SNF@schools pilot in Greater Chennai Corporation Schools. Training of Trainers for Nodal School teachers has been completed and Training of Chennai corporation school Teachers is in progress.

**Food Safety Compliance through regular  
inspections and sampling system  
(FoSCoRIS)**

**10.13** Food Safety and Standards Authority of India has launched **FoSCoRIS**, a web based online platform to bring in transparency in food safety inspection and sampling and to verify compliance of food safety and hygiene standards by food businesses as per regulatory requirements. This system is based on a standard guided protocol, findings recorded online with facilities to capture images/videos and geotagged for real time monitoring. It would help eliminate discrepancy and make food safety officers accountable. All Designated Officers and Food Safety Officers have been trained on **FoSCoRIS** portal.



## **Food Safety Training & Certification Portal (FoSTaC) portal**

**10.14** FSSAI brings an easy solution of Training & Certification through its new initiative of Food Safety Training & Certification Portal (FoSTaC). FSSAI recommends that all licensed food businesses must have at least one trained and certified food safety supervisor under FoSTaC for every 25 food handlers in each premise. FoSTac training will ensure self-compliance by Food Business Operators and adherence to safe processes and standards along the food production chain to ensure safe food for consumers. Awareness on **FoSTaC** has been given to all FBO Associations.

## **Indian Food Laboratory Network system (INFoLNET)**

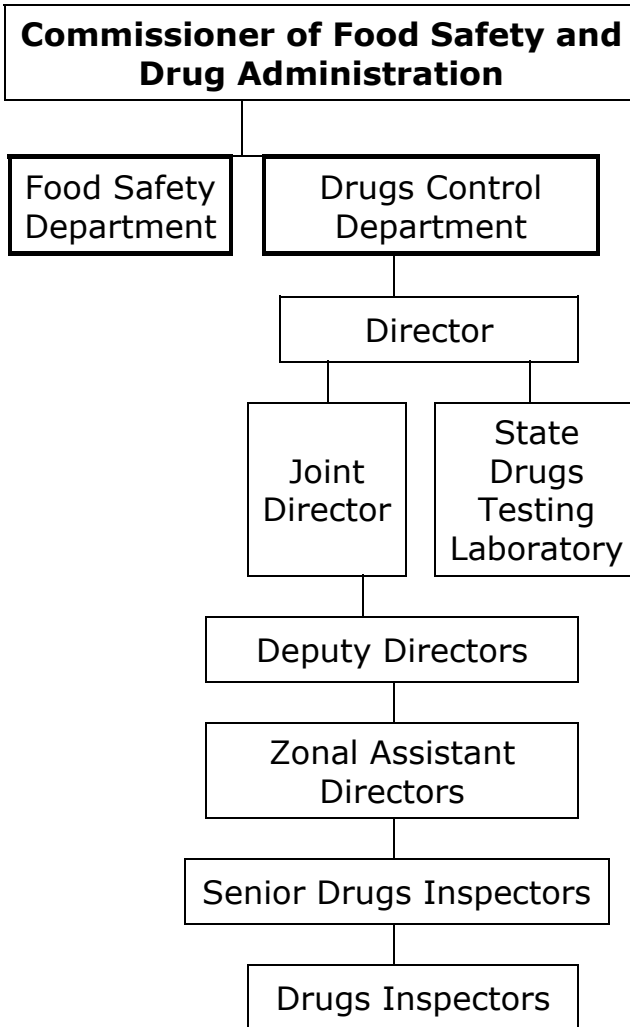
**10.15** FSSAI is rolling out the implementation of the Indian Food Laboratory Network system (INFoLNET), an initiative to network all food

testing laboratories to ensure a streamlined and transparent food testing network in the country. Under this initiative, all the six state food analysis laboratories in Tamil Nadu will be networked and the Food Analysis Laboratories will upload the details of food samples received, analysed and test reports directly to the INFoLNET Portal.

### **DRUGS CONTROL ADMINISTRATION**

**10.16** Since 13.11.1981, the Drugs Control Department, has been functioning as a separate department with the Director of Drugs Control as Head of Department. It has now been brought under one umbrella organization namely Tamil Nadu Food Safety and Drugs Administration (TNFS & DA) Department and functions, under the administrative control of "Commissioner of Food Safety and Drugs Administration".

## Administrative Structure



**10.17** 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. It plays a very important role in supporting healthcare service regulations and enhancing safety of our community with respect to drugs and cosmetics. 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 & Medical Devices Rules, 2017.
- ii. Drugs Price Control Order, 2013.
- iii. The Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954 & the Drugs and

Magic Remedies (Objectionable Advertisement) Rules, 1955.

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

**10.18** 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 Approving Authority of the Government of India.

**10.19 Monitoring:** Drugs Control Department monitors.

- The quality, safety, efficacy and availability of drugs at right prices.
- The quality and safety of Cosmetics.

- The misleading advertisements with respect to Drugs and Magic Remedies.
- Collection and supply of safe blood and blood components.

**10.20** The sanctioned staff strength of the Department in the enforcement and testing laboratory is given below:-

### **Enforcement**

| <b>Sl. No</b> | <b>Name of the Post</b>                              | <b>No. of Posts</b> |
|---------------|--|---------------------|
| 1             | Director of Drugs Control                            | 1                   |
| 2             | Joint Director of Drugs Control                      | 1                   |
| 3             | Deputy Director of Drugs Control                     | 3                   |
| 4             | Assistant Director of Drugs Control                  | 15                  |
| 5             | Assistant Director of Drugs Control (Administration) | 1                   |
| 6             | Senior Drugs Inspector                               | 15                  |
| 7             | Drugs Inspector                                      | 146                 |
| 8             | Legal Adviser  | 1                   |

|    |                            |            |
|----|----------------------------|------------|
| 9  | Assistant Accounts Officer | 1          |
| 10 | Ministerial Staff          | 117        |
| 11 | Office Assistant           | 79         |
| 12 | Driver                     | 04         |
| 13 | Telephone Operator         | 01         |
|    | <b>Total</b>               | <b>385</b> |

### **Drugs Testing Laboratory**

| <b>Sl. No</b> | <b>Name of the Post</b>       | <b>No. of Posts</b> |
|---------------|-------------------------------|---------------------|
| 1             | Government Analyst            | 1                   |
| 2             | Deputy Government Analyst     | 2                   |
| 3             | Senior Analyst                | 14                  |
| 4             | Junior Analyst                | 38                  |
| 5             | Junior Administrative Officer | 1                   |
| 6             | Technician Grade – I          | 6                   |
| 7             | Technician Grade – II         | 4                   |
| 8             | Electrician Grade – I         | 1                   |

|    |                      |           |
|----|----------------------|-----------|
| 9  | Plumber              | 1         |
| 10 | Laboratory Attendant | 7         |
| 11 | Animal Attendant     | 1         |
| 12 | Ministerial Staff    | 10        |
| 13 | Office Assistant     | 5         |
| 14 | Sweeper              | 1         |
| 15 | Sweeper-cum-Watchman | 1         |
|    | <b>Total</b>         | <b>93</b> |

### **10.21 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 drugs & cosmetics. It processes legal matters and undertakes special investigations including interstate investigations in association with the Drugs Control Department of other States.

**10.22 Drugs Testing Laboratory:** Drugs Testing Laboratory attached to this Department



undertakes testing of samples drawn by the Drugs Inspectors (other than parenteral drugs) from various Retail, Wholesale Units, Manufacturing Units and Hospitals of Private and Government Sector. The analysis of parenteral drugs are undertaken by the Drug Testing Laboratory situated at King Institute of Preventive Medicine, Chennai.

**10.23** Number of licensed Premises as on 31.3.2018

| Sales           |                    | Manufacturing   |                  |           | Blood Banks | Blood Storage Centres |
|-----------------|--------------------|-----------------|------------------|-----------|-------------|-----------------------|
| Retail Licenses | Wholesale Licenses | Allopathic Drug | Homeopathic Drug | Cosmetics |             |                       |
| 39,189          | 15,598             | 549             | 9                | 162       | 296         | 531                   |

**10.24** Number of Inspections during 2017-2018

| Details                      | No. of Inspections |
|------------------------------|--------------------|
| Sales Premises               | 55,425             |
| Manufacturing Premises       | 1,446              |
| Hospitals and Medical Stores | 2,790              |
| Blood Bank                   | 834                |

**10.25** Details of Samples drawn, tested and reported as Not of Standard Quality Drugs during 2017-2018:

|  |        |
|--|--------|
| Total No. of Samples drawn                         | 8,908  |
| No. of Samples Tested                              | 11,601 |
| No. of Samples declared as Not of Standard Quality | 175    |

**10.26** No. of Licenses suspended during 2017-2018:

|   |    |
|---|----|
| Total No. of Retail licenses suspended    | 43 |
| Total No. of Wholesale licenses suspended | 22 |
| Total No. of Licenses suspended           | 65 |

**10.27** Prosecution for certain contraventions under Drugs and Cosmetics Act, 1940, Drugs Price Control Order and Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954 and Rules, 1955 during 2017-2018

| <b>Sl. No</b> | <b>Details</b>  | <b>No. of cases</b> |
|---------------|---|---------------------|
| 1             | For the manufacture of spurious drugs   | 6                   |
| 2             | For the manufacture of Not of Standard quality drugs                          | 90                  |
| 3             | For the sale of drugs without supervision of Pharmacist                       | 169                 |
| 4             | For the sale of drugs without prescription of Registered Medical Practitioner | 303                 |

|   |   |     |
|---|---|-----|
| 5 | For the stocking/sale of date expired drugs   | 4   |
| 6 | Contraventions under Drugs and Cosmetics Act, 1940 and Rules, 1945                    | 369 |
| 7 | Contraventions under Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954 | 13  |

Special Teams have been formed to carry out 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. These were intensified during the outbreak of viral fevers and large scale sensitization was done to the wholesale and retail pharmacists and also to the general public to ensure that drugs are not sold without prescription.

## **Chapter - 11**

### **TAMIL NADU STATE HEALTH TRANSPORT DEPARTMENT**

**11.1** This department exclusively looks after the maintenance of all the vehicles attached to the various Directorates of Health and Family Welfare department. 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. Later during the year 1971, Government of India evolved an all India pattern according to which each state would have a State Health Transport Organization and thus Tamil Nadu State Health Transport Organisation was established in Tamil Nadu with one Central Workshop at Tiruchirapalli and three Regional Workshops at Chennai, Salem and Madurai. During the year 1981, the above organization was made as a separate Directorate for the effective maintenance of

Health and Family Welfare department vehicles. Consequent to the formation of a separate directorate, this department has made several significant strides as it passed through different phases of its development.

### **11.2 Functions of the department:**

- i) Maintaining the Health and Family Welfare Department vehicles in an effective and economical manner.
- ii) Acting as a repository of all data related to vehicles maintained.
- iii) Identifying and Recommending the right type / model of vehicles to be purchased based on the Vehicle Using Officers' requirement and coordinating with them while purchasing vehicles for Health and Family Welfare Department.

- iv) Identifying the aged and obsolete model vehicles that are un-economical for further retention and liaising with the vehicle owning officers for its condemnation and disposal.
- v) Providing professional assistance during the tender evaluation for purchase of new vehicles and while awarding fabrication work in ambulance vehicles. Testing and appraising the fabrication work executed in the Ambulance and Hearse Vehicles.
- vi) Providing apprenticeship training to I.T.I. certificate holders, diploma holders and B.E. Graduates.
- vii) Providing complete solutions to all the problems encountered by the medical officers in operating the vehicles.

**11.3 Workshop Details:** At present, seven Regional Workshops, nine District Workshops and twenty nine Mobile Workshops, four Mini

Workshops and One Reconditioning Unit are functioning under the Administrative Control of this Directorate. The Seven Regional Workshops located at Chennai, Salem, Madurai, Coimbatore, Trichy, Tirunelveli and Vellore maintains a fleet of around 400 Vehicles each. The Nine District Workshops at Chengalpattu, Dharmapuri, Virudhunagar, Udthagamandalam, Erode, Thanjavur, Pudukottai, Nagercoil and Villupuram are functioning to assist the regional workshops in maintaining all the vehicles in an effective manner. Apart from regional / district workshops, twenty nine mobile workshops that are spread all over the State are also functioning in this department. These mobile workshops are a unique feature of this department. They render periodical servicing and minor repairs right at the door steps of the vehicle using officer. These workshops that are provided with vehicles and equipped with essential tools and spares, inspects and renders service to all the vehicles



once in two months. Periodical servicing at regular intervals with timely replacement of lubricants and worn out items avoids break down of vehicles and prolongs the life of various systems in the vehicle. This eventually results in hassle free operation of the vehicles with a notable decrease in the maintenance cost.

**11.4 Fleet Maintained:** This department as on 31.03.2018, maintains 2,669 vehicles attached to the various directorates of Health and Family Welfare department as detailed below.

| <b>Sl. No</b> | <b>Name of the Directorate</b>                       | <b>No. of vehicles maintained</b> |
|---------------|--|-----------------------------------|
| 1             | Directorate of Public Health and Preventive Medicine | 1,639                             |
| 2             | Directorate of Medical and Rural Health Services     | 292                               |
| 3             | Directorate of Medical Education                     | 220                               |
| 4             | Directorate of Family Welfare                        | 386                               |
| 5             | Directorate of Drugs Control                         | 4                                 |

|    |   |              |
|----|---|--------------|
| 6  | Commissionerate of Indian Medicine and Homoeopathy    | 19           |
| 7  | Directorate of State Health Transport Department      | 57           |
| 8  | Commissionerate of Food Safety & Drugs Administration | 35           |
| 9  | Tamil Nadu Medical Services Recruitment Board         | 2            |
| 10 | Tamil Nadu Health Systems Project                     | 5            |
| 11 | State Health Society                                  | 10           |
|    | <b>Total</b>  | <b>2,669</b> |

**11.5 Health department vehicles Information and Complaint Redressal Programme (HICORP):** HICORP is implemented by this Department to provide a single window grievance redressal and information providing facility for the Medical Officers and Drivers for the proficient maintenance and hassle free operation of Health and Family Welfare Department vehicles plying in the State. The concerned stake holders utilize

this platform to register and resolve all the vehicle related problems by sending a Short Message Service(SMS) to the HICORP Helpline No. 94896 21111.This is a first of its kind 24x7 free of cost facility run by a vehicle maintenance Government department. This significant initiative taken by this department for maximum and effective utilization of vehicles has been appreciated by the entire Medical Fraternity.

**Salient features of HICORP:**

- i) 24 x 7 round-the-clock free facility.
- ii) Single window to register complaints / requests and to seek information.
- iii) Required technical and statistical information provided.
- iv) Road side assistance offered.
- v) Any queries with regard to record maintenance could be clarified.
- vi) One stop solution for issues faced in the repairs, maintenance and operation of Vehicles.

**11.6 Disposal of Condemned vehicles by e-auction:** This department through e-auction conducted by MSTC Limited, a Government of India enterprise, disposes all the condemned vehicles grounded by various directorates of Health and Family Welfare department. This move has not only resulted in effective participation of tenderers but also in quick disposal of vehicles.

**11.7 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.

**11.8 Computerization of Activities:** With in-house resources, a vehicle management database programme has been developed and implemented in this department. Using this database program, 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.

**11.9 Improvement in the Performance:** As a result of effective implementation of management theories and principles, performance of the Workshops in terms of fleet

utilization, downtime of repairs, inventory control, man-hour utilization and budgetary control have drastically improved. All vehicles admitted in the workshops are delivered at the earliest and necessary steps have been taken to ensure that no vehicle irrespective of magnitude of repairs required is detained for more than 30 days. The percentage of fleet in operation which was 72.6% at the beginning of the formation of this Department in the year 1981 has progressively improved to 98% in the Year 2017-2018. It is a known fact that uninterrupted mobility of the Health Department vehicles is a necessity for the Health Care Programmes to reach the public in an effective manner. This department that is responsible for the maintenance of health department vehicles, plays a pertinent role, though indirectly, in the successful implementation of Health Programmes.

## **Chapter - 12**

### **HUMAN RESOURCES AND MEDICAL SERVICES RECRUITMENT BOARD**

**12.1** Human Resources play a pivotal role in effective functioning of any department. Health and Family Welfare department comprises of more than ten Directorates under its control. More than one lakh posts in over 200 categories exist in various Government medical institutions. Medical Services Recruitment Board a first of its kind was constituted in the country with an objective to contribute the human resources for the effective functioning of the Health and Family Welfare department. Medical Services Recruitment Board effectively recruits and places the qualified medicare personnel in the Government medical institutions to provide quality health care services to the public.

## **12.2 Formation of Medical Services**

**Recruitment Board:** To ensure timely provision of quality health care services to the public, Medical Services Recruitment Board was constituted in January, 2012 with an objective to carry out all direct recruitments in a speedy manner in order to fill up vacancies in various categories of posts including Medical and Para Medical in the Health and Family welfare Department. 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 various posts in Medical, Para Medical categories was made through Tamil Nadu Public Service Commission or through Employment Exchange by the various Directorates.

**12.3** The Medical Services Recruitment Board conducts recruitment through a fair procedure



by way of open advertisement in the newspapers, receives the application on-line and selects either by conducting competitive examination (on-line / offline) or by giving suitable weightage to relevant academic performance of the candidates in various examinations. Candidates are selected duly following the existing rules on communal rotation and rule of reservation.

**12.4** The Medical Services Recruitment Board has recruited the candidates for the following categories of posts till 31.03.2018:

| <b>Sl. No</b> | <b>Name of the post</b>   | <b>No. of candidates selected</b> |
|---------------|---|-----------------------------------|
| 1             | Assistant Surgeon (General)   | 7,460                             |
| 2             | Assistant Surgeon (Speciality)  | 1,943                             |
| 3             | Medical Officers for Tamil Nadu Government Multi Super Speciality Hospital, Chennai | 72                                |
| 4             | Assistant Surgeon (Dental) (General)  | 59                                |

|    |  |       |
|----|--|-------|
| 5  | Assistant Surgeon (Speciality) (Dental)            | 67    |
| 6  | Assistant Surgeon (Special Qualifying Examination) | 1,151 |
| 7  | Assistant Medical Officer (Siddha)                 | 101   |
| 8  | Assistant Medical Officer (Homoeopathy)            | 4     |
| 9  | Assistant Medical Officer (Ayurveda)               | 1     |
| 10 | Pharmacist   | 651   |
| 11 | Nurse  | 9,533 |
| 12 | Village Health Nurse                               | 1,323 |
| 13 | Lab. Technician Grade III                          | 181   |
| 14 | Radiographer                                       | 285   |
| 15 | Fitter Grade II                                    | 60    |
| 16 | Physiotherapist Grade-II                           | 48    |
| 17 | ECG Technician                                     | 29    |
| 18 | Therapeutic Assistant                              | 8     |
| 19 | Prosthetic craftsman                               | 33    |
| 20 | EEG / EMG Technician                               | 12    |
| 21 | Audiometrician                                     | 14    |
| 22 | Occupational Therapist                             | 18    |
| 23 | Therapeutic Assistant (Male)                       | 57    |
| 24 | Therapeutic Assistant (Female)                     | 49    |
| 25 | Dark Room Assistant                                | 227   |

|    |   |               |
|----|---|---------------|
| 26 | Heart Lung Hypothermia Machine Technician | 7             |
| 27 | Plaster Technician Grade-II               | 87            |
| 28 | Anaesthesia Technician                    | 77            |
|    | <b>TOTAL</b>                              | <b>23,557</b> |

**12.5 'Walk-in' Selection Process for Specialities:** Medical Services Recruitment Board selects Assistant 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** As on 31.03.2018, the Medical Services Recruitment Board has recruited 23,557 candidates, since its inception. Out of this 3,822 candidates were recruited between 01.04.2017 and 31.03.2018. Further, the recruitment processes are under way for filling up 2,882 posts under the following 16 categories:

| <b>Sl. No</b> | <b>Name of the post</b>  | <b>No. of posts</b> |
|---------------|--|---------------------|
| 1             | Nurse  | 827                 |
| 2             | Senior Lecturer in Optometry   | 2                   |
| 3             | Assistant Medical Officer / Lecturer Grade-II (Yoga and Naturopathy) | 73                  |
| 4             | Pharmacist   | 333                 |
| 5             | Lab Technician Grade-III   | 710                 |
| 6             | Lab Technician Grade-II  | 524                 |
| 7             | ECG Technician   | 9                   |
| 8             | Refractionist  | 14                  |
| 9             | Physiotherapist Grade - II   | 63                  |
| 10            | Pharmacist(Siddha)   | 148                 |
| 11            | Pharmacist(Ayurveda)   | 38                  |
| 12            | Pharmacist(Homoeopathy)  | 23                  |
| 13            | Pharmacist(Unani)  | 20                  |
| 14            | Radiotherapy Technician  | 25                  |
| 15            | Therapeutic Assistant (Male)   | 36                  |
| 16            | Therapeutic Assistant (Female)                                       | 37                  |
|               | <b>TOTAL</b>   | <b>2,882</b>        |

**12.7** Medical Services Recruitment Board also conducts Special Qualifying Examination for the temporarily appointed Assistant Surgeons who are in Service to regularise their services. Prior to the formation of the Medical Services Recruitment Board, such special qualifying examination for temporary Assistant Surgeons was conducted by Tamil Nadu Public Service Commission.

**12.8** 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 fill up all the vacancies in various Government medical institutions in a speedy manner.

## **CHAPTER – 13**

### **NATIONAL HEALTH MISSION-TAMIL NADU**

**13.1** The National Health Mission (NHM) was constituted initially in April 2005 as National Rural Health Mission (NRHM) with a view to provide accessible, affordable and quality health care to the population, especially the vulnerable groups. The State Health Society was constituted merging the health societies for leprosy, tuberculosis, blindness control and integrated disease control programme except Tamil Nadu State AIDS Control Society. All the National Health Programmes at the State and District level thus were brought under one umbrella and it will function through the individual focus area. This helped in pooling all the resources available in implementation of the programme and following were the focus areas-

- Reproductive and Child Health.
- Family Welfare.
- Vector Borne Disease Control Programme.
- Tuberculosis Control.
- Integrated Disease Control Programme.
- National Blindness Control Programme.
- Indian System of Medicine and Homeopathy.

In all the districts to implement the activities of the Mission, District Health Mission and District Health Society were formed in G.O.Ms.No.27, Health and Family Welfare Department, dated 21.2.06. After the start of the National Urban Health Mission in 2013, the unified Mission is called National Health Mission-Tamil Nadu. Initially the funding was 75:25 between the Central and State Governments respectively but since 2015-16, the fund sharing pattern of this Mission is 60:40. The successful implementation of various innovative initiatives of the State Government along with the programmes being

implemented under the National Health Mission has resulted in the overall improvement of all health indicators in the State.

**13.2** 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.

**13.3** 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 Burden of Disease (GBD) 2016 targets set in Sustainable Development Goals (SDG) and Vision 2023.



**13.4** As per Tamil Nadu state specific Global Burden of Disease (GBD) 2016 report, it has been observed that the deaths due to Cardiovascular diseases and Diabetes, Urogenital, Blood and Endocrine disorders constituted about 36.1% and 12.2% respectively of the total 100% deaths. Also, the report lists that the diseases such as Ischemic Heart Diseases, Diabetes and Self-harm as the top three reasons for the high Disability Adjusted Life Years. The National Health Mission, Tamil Nadu has proposed various strategies and interventions to control Non-Communicable Diseases including Tamil Nadu Accident and Emergency Care Initiatives. A special attention also been proposed for Mental Health including Suicide Prevention Strategies in Tamil Nadu. Top causes of death in Tamil Nadu as brought out in the GBD 2016 and Disability Adjusted Life Years may be seen from the following tables.

**Top Causes of Death in Tamil Nadu, 2016  
(GBD 2016)**

| <b>Sl. No.</b> | <b>Causes for Deaths</b>                            | <b>%</b> |
|----------------|---|----------|
| 1              | Cardiovascular diseases                             | 36.1     |
| 2              | Diabetes, Urogenital, Blood and Endocrine disorders | 12.2     |
| 3              | Diarrhoea, LRI and other common infectious diseases | 10.6     |
| 4              | Neoplasms   | 7.5      |
| 5              | Chronic Respiratory diseases                        | 6.5      |
| 6              | Unintentional injuries                              | 6.0      |
| 7              | Self-harm and interpersonal violence                | 4.3      |
| 8              | HIV / AIDS and Tuberculosis                         | 3.8      |
| 9              | Transport accidents                                 | 3.2      |
| 10             | Neurological disorders                              | 2.3      |
| 11             | Digestive diseases                                  | 1.7      |
| 12             | Cirrhosis and other chronic liver diseases          | 1.6      |
| 13             | Neonatal disorders                                  | 1.6      |

**Top causes for Disability Adjusted Life  
Years (DALYs) in  
Tamil Nadu, 2016 (GBD 2016)**

| <b>Sl. No</b> | <b>Causes for Disability Adjusted Life Years.</b> | <b>%</b> |
|---------------|---|----------|
| 1             | Ischemic heart disease                            | 14.3     |
| 2             | Diabetes  | 4.9      |
| 3             | Self-harm   | 4.3      |
| 4             | COPD  | 3.7      |
| 5             | Iron-deficiency anemia                            | 3.6      |
| 6             | Sense organ diseases                              | 3.5      |
| 7             | Road traffic accidents                            | 3.3      |
| 8             | Chronic kidney disease                            | 3.1      |
| 9             | Low back and neck pain                            | 2.8      |
| 10            | Cerebrovascular disease                           | 2.8      |
| 11            | Diarrheal diseases                                | 2.8      |
| 12            | Falls   | 2.7      |
| 13            | Depressive disorders                              | 2.5      |

## **Maternal Health**

### **13.5 Reproductive, Maternal, Newborn, Child Health and Adolescent Health (RMNCH+A) Services:**

Under this through support from the State Health society, the focus is given on universal coverage of Reproductive, Maternal, Newborn, Child Health and Adolescent Health (RMNCH+A) services including institutional delivery, emergency obstetric care, safe abortions, family planning services and adolescent health services in the State. Further, under the umbrella of Rashtriya Bal Swasthya Karyakram (RBSK) the focus has been expanded from child survival to development of all children between 0-18 years. Similarly, 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.

### **13.6 '24 x 7 Delivery Care Services' in PHCs**

#### **Janani Suraksha Yojana/Janani Sishu**

**Suraksha Karyakram:** Entitles women to accessible Maternal and child health services, financial assistance of Rs.700 and Rs.600 in rural and urban areas respectively and entitlement of free drugs, diagnostics and diet during the duration of stay for every pregnant and sick neonate all aim at reducing out of pocket expenses for pregnant women and sick neonates during delivery and treatment. All Government health institutions in Tamil Nadu are already providing free and cashless Maternal and Child Health (MCH) services. Under the JSSK scheme, during the year 2017-18, 5,94,934 pregnant women have been benefitted by getting free drugs, diet and consumables. Further, 3,57,439 pregnant women have been transferred from home to health facility (including inter facility transfer) and 1,99,854

delivered mothers have been dropped back from health facility to home. Under the JSY scheme 5.94 lakh women benefitted till March, 2018.

**13.7 Comprehensive Emergency Obstetrics and Neonatal Care Centres (CEmONC):** 126

CEmONC have been established till date in Medical College Hospitals, District Headquarters Hospitals and Taluk / Non-Taluk Hospitals 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 by providing additional inputs such as human resource, equipment, civil works, training etc., and services such as Operation Theatre, Obstetric ICU, Lab and Blood Bank facilities, counselling are being provided 24x7 to the mother and newborn.

**13.8 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, Pediatricians and Anesthetist) are being hired to provide MCH services in the primary and secondary care institutions.

**13.9 Control of Anaemia among Ante-natal mothers:** About, 1,45,106 pregnant mothers diagnosed with maternal anaemia during the year 2017-18 have been given Injection Iron Sucrose. 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.

**13.10 Control of Gestational Diabetes:** 9,99,334 antenatal mothers have been screened to avert maternal and new born complications and 11,487 antenatal mothers have been diagnosed as positive for Gestational Diabetes Mellitus during the year 2017-18 and provided with treatment.

### **13.11 Blood Banks and Blood Storages**

**Centers:** Under NHM, 259 UG PHCs, 48 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. 4,00,054 units of blood from 89 Blood Banks and 21,602 units of blood from 281 Blood Storage Centres have been transfused during the year 2017-18.

### **13.12 Maternal and Child Health Centers**

**(MCHCs):** 42 Community Health Centres have been identified at one per Health Unit District to function as Level-II MCHCs. These centres are being strengthened with additional inputs to provide Emergency Obstetric Care and Safe Abortion Services, New Born Stabilization services, poison management etc.

### **13.13 Feeding and Dietary Charges:**

The antenatal mothers who come for antenatal checkup are provided with nutritious food while



attending the antenatal clinics at the PHCs and also during postnatal period. Under this scheme, during the year 2017-18, 1,80,526 antenatal mothers and 1,19,199 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.

**13.14 Life Saving Anaesthetic Skills (LSAS) / Emergency Obstetric Care (EmOC) Training for Medical Officers:** 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, 593 Medical Officers were trained in LSAS training and 65,731 caesarian sections and 2,77,393 procedures like family planning procedures have been conducted by the trained Doctors, since 2007. 136 Medical

Officers have been trained in EmOC training and 7,768 caesarian sections and 25,240 procedures like family planning procedures have been conducted by the trained doctors since 2009.

**13.15 High Risk Mother Observation:**

Pregnant women, High risk pregnant mothers with one or more complications during the pregnancy are identified 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 as if left unattended they contribute to majority of maternal deaths. 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 labor pain or immediately on the onset of the complication.

## **Maternal Mortality Ratio (MMR)**

### **13.16 Interventions to Reduce Maternal**

**Deaths:** The Government is keen on promoting the health of Pregnant mothers. Tamil Nadu is the only State in India having Dr. Muthulakshmi Reddy Maternal Benefit Scheme of Rs.12,000 since 2011 providing Conditional Cash Transfer to pregnant mothers thereby compensating for the loss of wages. This has now been increased to Rs.18,000 including two nutrition kits worth Rs.4,000. As per SDG Goal, MMR should be brought to less than 70 per 1 lakh live birth by the year 2030. However, Tamil Nadu has already reached the SDG Goal for the year 2030 in 2014-16 itself by reaching the figure of 66 per one lakh live birth for Tamil Nadu compared to 130 for India. As per the HMIS data currently, MMR is 62 per lakh. The detailed progress on MMR has already been given in Chapter-6. Further, to achieve MMR reduction on par with

Developed Nations, Government of Tamil Nadu have done cause wise analysis of maternal deaths and decided to implement the following interventions.

**Special strategies to tackle key issues contributing to Maternal Death:**

| <b>S. No</b> | <b>Problem statement</b>  | <b>Activity</b>   | <b>Special strategy</b>  |
|--------------|---|---|--|
| 1            | 8% of HOB contributes to 30% of Maternal deaths                                   | 120 HOB block strategy  | Additional sterilization camps, interval IUCD promotion, Injectable contraceptive  |
| 2            | 10% of total maternal deaths is contributed by heart disease complicating mothers | Reintroduction of Inj. Penicillin for Rheumatic heart disease identified children through RBSK up to 18 years | Inj. Penicillin is made available in CHCs for Rheumatic heart disease identified children at a dosage of once in every three weeks through RBSK up to 18 years of age. Special card to be maintained for regular follow up |

|   |   |   |   |
|---|---|---|---|
| 3 | 5% of total deliveries of mothers more than 30 years contribute to 20% of maternal deaths   | To bring mothers more than 30 years also as high risk category  | More than 30 years AN mothers to be booked as high risk mother and regular follow up to be given                  |
| 4 | Out of total maternal deaths 23% is attributed to antenatal deaths in which 15% is contributed by sepsis which indirectly means that abortion deaths of unwanted pregnancies by over the counter abortifacient drug sale and incomplete abortion done by untrained quack. | <ol style="list-style-type: none"> <li>1) Promotion of PPIUCD upto PHC level</li> <li>2) Provision of MVA services upto CHC level involving PHC doctors</li> <li>3) Provision of MMA drugs &amp; injectable contraceptives upto CHC level</li> <li>4) Antara an Injectable contraceptive and New Oral Contraceptive pill named Chhaya are recently introduced.</li> <li>5) Door step delivery of contraceptives through ASHAs</li> <li>6) Strong legal action against untrained quacks</li> </ol> | Strict monitoring and supervision for implementation of the above activities in the field level by JDHS and DDHS. |

|   |                                       |   |   |
|---|---------------------------------------|---|---|
| 5 | Visitors and migrants mother tracking | Re-registration of visitor mother in Revamped PICME | Revamped PICME rolled out for the entire state.   |
| 6 | Urban unregistered mothers tracking   | CRS linkage with revamped PICME                     | 1.Provision of Pre-registration option through self online / Common Service Centre / 102 call centre / Institutional login<br>2.All unregistered mothers especially in urban areas will be insisted to register in the PICME through Urban Health Nurse for getting the Birth Certificate of the child. |

In addition to it, strengthening of the following ongoing programme for reduction of commonest causes of maternal mortality is also taken care of:

| <b>S. No</b> | <b>Causes of Maternal Mortality</b> | <b>Ongoing Scheme</b>   |
|--------------|-------------------------------------|---|
| 1            | <b>Anaemia Control</b>              | i. Annual deworming, Weekly Iron and Folic Acid Supplementation (WIFS) tablets for all adolescent girls to prevent anaemia, since they are the future mothers |

|   |  |   |
|---|--|---|
|   |  | <ul style="list-style-type: none"> <li>ii. Oral Iron and Folic Acid (IFA), Iron sucrose injections are provided at all PHCs</li> <li>iii. Blood transfusions for severely anaemic mothers through 281 functional Blood Storage centres at CHCs.</li> <li>iv. 770 Voluntary Blood donation camps are held in all blocks twice a year in all 385 blocks.</li> <li>v. Supplementary feeding through ICDS.</li> </ul>   |
| 2 | <b>Hypertension Complicating Pregnancy</b> | <ul style="list-style-type: none"> <li>i. Early identification at sub centre level itself with high risk follow-up, prescription of tablet-Labetalol to decrease Blood Pressure.</li> <li>ii. Standard Protocols to identify and treat hypertension during pregnancy through injection-Magnesium Sulphate is available even at PHC level</li> <li>iii. Functional 75 Obstetric ICUs with facilities to treat any complications arising due to hypertension complicating pregnancy.</li> </ul> |
| 3 | <b>Post-Partum Hemorrhage</b>              | <ul style="list-style-type: none"> <li>i. Continuous care of the delivered mothers so that early postpartum hemorrhage can be identified and replacement done immediately.</li> <li>ii. Availability of Anti-Shock Garment, Misoprostol tablet even at PHCs.</li> </ul>   |

|   |   |  |
|---|---|--|
| 4 | <b>Sepsis</b>                               | <ul style="list-style-type: none"> <li>i. Running water supply and promotion of simple hand washing techniques is ensured at all delivery points.</li> <li>ii. Amma Baby Care kit provided to all new born babies to prevent sepsis.</li> <li>iii. Revised Treatment protocols with Higher Antibiotics.</li> <li>iv. Disinfection and fumigation of labour rooms</li> </ul>  |
| 5 | <b>Heart Disease Complicating Pregnancy</b> | <ul style="list-style-type: none"> <li>i. Early identification and corrective surgeries during school health visits / adolescent period through RBSK programme.</li> <li>ii. Early corrective surgeries done free of cost through Chief Minister's Comprehensive Health Insurance Scheme in private hospitals and in tertiary care institutions.</li> <li>iii. Early identification and referral for mothers with heart disease for follow up and safe delivery of such mothers in apex tertiary care institutions.</li> </ul> |
| 6 | <b>Maternal Death Audit</b>                 | <ul style="list-style-type: none"> <li>i. Tamil Nadu is the first State to have a Government order for implementation of Maternal death audit at district level as per G.O (Ms) No. 223 of H&amp;FW (R1) Dept Dt: 09.07.2004.</li> <li>ii. Maternal death audit is done at four levels;</li> </ul>   |



|  |  |  |
|--|--|--|
|  |  | <ol style="list-style-type: none"> <li>1) Community based audit by PHC team</li> <li>2) Special Maternal death audit at District level</li> <li>3) District level audit by the District Collector</li> <li>4) State level audit by MD, NHM / MCH Commissioner every month through Video conference.</li> </ol> |
|--|--|--|

The two nutrition kits under the Dr.Muthulakshmi Reddy Maternity Benefit Scheme is also expected to address the anaemia, nutrition and low birth weight challenges.

**13.17 Interventions to reduce Higher Order Birth (HOB):** Tamil Nadu has already achieved replacement level in Total Fertility Rate (TFR) of 1.6. However, Higher Order Birth (HOB) amounting for 8% of total births contribute to 30% of Maternal deaths. Hence wide basket of choices including Oral Contraceptive Pills, Intra Uterine Contraceptive Devices, Injectable Contraceptives, Puerperal Sterilization and

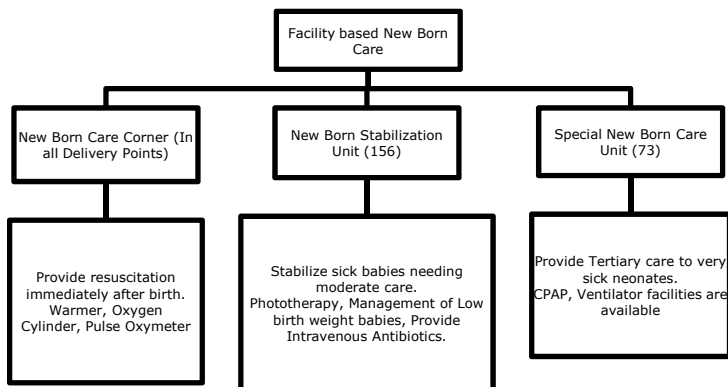
Interval Sterilization is being provided to the beneficiaries. In 120 HOB blocks, out of 1,44,363 mothers of HOB, 45,313 mothers have been intervened which includes 32,593 mothers have under gone permanent sterilization 12,265 mothers have under gone interval IUCD insertion, 239 mothers have received Injectable Contraceptives (Antara) and 216 mothers have been provided Oral contraceptive pills (Chhaya). Total beneficiaries 45,313 (2017-18)

**13.18 Pre – Conception and Pre – Natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994:** The act is strictly implemented to maintain sex ratio at birth equally in all districts. Decoy deployment is made to fix the suspect scan centers which reveal the sex of the fetus. Stringent punishments are being given for the miscreant Scan centers. Valid Scan Centre licenses are mandatory even for Government institutions

including PHC, CHC, GH and Medical College Hospitals. Periodical review is carried out for assessing the progression and trends in sex ratio at birth. IEC display boards are placed in all the approved scan centers. Under this act 6,717 Scan centres have been registered till March 2018. Cases have been filed against 127 Scan centres for violation of PCPNDT act, with judgement delivered to 108 cases and trail pending for 19 cases.

**13.19 Newborn Care Services:** Quality New born care is provided through the dedicated network of New born care services through 73 Special New Born Care Units at Medical College hospitals / District Head Quarters Hospitals / Sub District Hospitals and continuum of care of SNCU discharge at the community level through ASHAs and Anganwadi workers.

### 13.19.1 Facility based newborn care



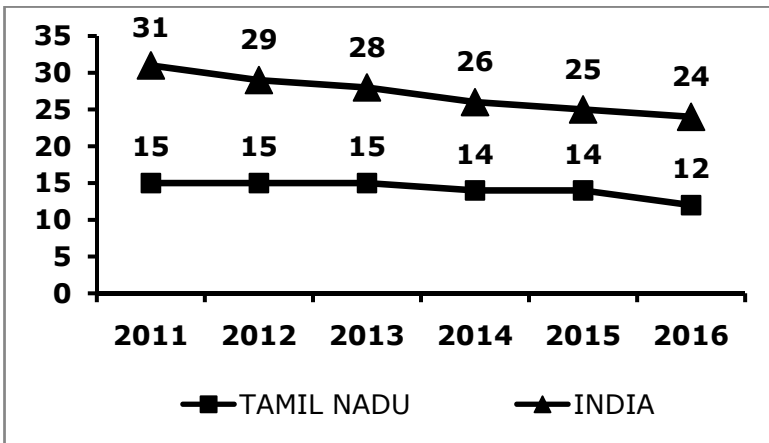
Interventions to ensure immediate focus of New Born Care from labour, Child birth and immediate post natal care to reduce neonatal mortality rate are as follows:

| <b>S. No</b> | <b>Level of Intervention</b>   | <b>Intervention</b>        |
|--------------|--------------------------------|----------------------------|
| 1            | Management of preterm birth    | Ante natal Corticosteroids |
| 2            | Skilled care at birth          | Use of Partograph          |
| 3            | Basic Emergency Obstetric Care | Assisted Vaginal Delivery  |

|   |   |  |
|---|---|--|
| 4 | Comprehensive<br>Emergency      Obstetric<br>Care | Caesarean Section  |
| 5 | Basic New Born Care                               | Cleanliness      including<br>Cord care, Warmth &<br>Feeding                                     |
| 6 | Neonatal resuscitation                            | Use of Bag & Mask  |
| 7 | Kangaroo Mother care                              | Skin to Skin, Breast<br>feeding      &      feeding<br>support for premature<br>and small babies |
| 8 | Treatment      of      severe<br>infections       | Using      Injectable<br>Antibiotics   |
| 9 | Inpatient care of sick<br>and small New born      | IV fluids / Feeding<br>support      and      Safe<br>Oxygen                                      |

Due to the effective implementation of the above protocols there is a drastic reduction in the neonatal mortality rate which is evidenced by the SRS 2016.

## NEONATAL MORTALITY RATE



### 13.19.2 Community based newborn care:

This component is very critical since the follow up of the discharged new born from the SNCU is followed up by ASHA/ VHN/ AWW till the baby survives first birthday. This is possible only if there is awareness generation of the mother to identify early danger signals, promotion of exclusive breast feeding and improving infant and young child feeding practices. Administration of ORS and Zinc tablet plays a key role. The team comprising of ASHA/ VHN/

AWW is also motivated by provision of team incentives with specific indicators of new born care.

### **13.20 Nutrition Rehabilitation Centres:**

Nutrition Rehabilitation Center (NRC) is a health facility where children with Severe Acute Malnutrition (SAM) are admitted and managed. Under-nutrition remains a significant cause of morbidity and mortality in children under five years of age. NRC is found to be effective in decreasing the prevalence of wasting and stunting. This has been scaled up from two NRCs at Dharmapuri Medical College Hospital and Perambalur District Head Quarters Hospital to four additional NRCs at ICH, Egmore; Tirunelveli Medical College Hospital, Madurai Medical College Hospital and Tiruvannamalai Medical College Hospital. Follow up of the discharged Children is also carried out to ensure adequate

nutrition in the home. 576 children have been treated in these NRCs during the year 2017-18.

### **13.21 Rashtriya Bal Swasthya Karyakram:**

(Desiya Siraar Nala Thittam) Rashtriya Bal Swasthya Karyakram (RBSK), an innovative and ambitious initiative, which envisages Child Health Screening and Early Intervention Services, a systemic approach of early identification and link to care, support and treatment. This programme subsumes the school health programme. The programme aims at early detection and management of a set of 30 health conditions prevalent in children less than 18 years of age. Children in the age group from birth to eighteen years including the newborn and those attending Angawadi Centers and Government schools will be benefitted through this programme. This also includes free spectacle distribution for children with refractive error. These effective health interventions



reduce both direct costs and out-of-pocket expenditure. Child Health Screening and Early Intervention Services also aims at reducing the extent of disability, at improving the quality of life and reduction of Disability Adjusted Life Years thus enabling all persons to achieve their full potential. Implemented in right earnest, it would yield rich dividends in protecting and promoting the health of our children. Those children who require surgical intervention like corrective surgeries for Congenital Heart Diseases, Cleft Lip, Cleft Palate, Club Foot, Congenital Cataract, Cochlear implantation for congenital deafness and treatment for Autism disorders are covered under the Chief Minister's Comprehensive Health Insurance Scheme. Currently, there are 770 RBSK teams in rural areas and 27 RBSK teams in Urban areas. GPS installation for tracking of RBSK vehicle is under process. To ensure the continuum of care for the children screened, identified by the RBSK team

and treated by the DEIC team a mobile based application is developed to be used by these teams. In the year 2017-18 1.33 crore children have been screened in schools and anganwadi centres. 6,84,361 children have been identified with health conditions and 6,14,484 children have been referred and treatment have been provided for the same. So far under RBSK 11,344 children have been identified for surgeries and 8,663 children have underwent surgeries for various health conditions. Under Kannoli Kappom Thittam (KKT) 35,26,977 children have been screened and 1,72,138 children have been identified with refractive error and free spectacles are being issued.

**13.22 District Early Intervention Centre (DEIC):** DEIC is created at 34 facilities (13 District Hospitals and 21 Medical College Hospitals) aiming at early detection and early intervention so as to minimize disabilities among

growing children. WHO has stated that defect or developmental delay leads to functional disability and the functional disability in turn lead to handicap if not addressed adequately. Medical services and trained professionals in the field of hearing, speech, visual, sensory neural and behavioral therapy provide the best services required for the children identified with such conditions. DEIC has the required facilities for providing social, educational, vocational and economic rehabilitation services acting in tandem for maximizing the beneficial effect. About 1,33,716 children have been managed in 34 DEICs during the year 2017-18.

**13.23 Rashtriya Kishor Swasthya Karyakram (RKSK):** In India Adolescents account for nearly one quarter of the total population. In order to respond to the needs of adolescent health and development 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 training of peer educators at the rate of four per 1000 adolescents and placing them as mentors in communities, observing Adolescent Health Club and Adolescent Health Day at Sub-Centres with support from trained Village Health Nurses (VHNs), establishment of Adolescent Friendly Health clinics in Community Health Centres, Sub District and District Hospitals, Medical colleges & 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. In the current year, the programme has been extended to 10 more districts in the State. Therefore, this programme is being implemented in 19 districts. 185 Adolescent Friendly Health Clinics (AFHCs) have been established so far. In 2017-18, 1,96,718 adolescents have received clinical services and 91,306 adolescents have received counseling services in these AFHCs. The success of RKSK could be viewed in the active participation of community peer groups and effective functioning of the Weekly Iron Folic Acid Supplementation (WIFS) and Menstrual Hygiene Scheme (MHS) in schools and Anganwadi centres.

**13.24 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 (February and August every year). 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. During the year 2017-18, 37,80,53,582 IFA tablets and 2,08,35,427 Albendazole tablets have been issued for Adolescents.

## **Tribal Health**

### **13.25 Provision of Accredited Social Health Activists (ASHAs) in Tribal / Difficult areas:**

Tamil Nadu is the State which has a strong community monitoring mechanism with Village Health Nurses (VHN). To augment the services of VHN, 2650 ASHAs are engaged in tribal / hilly/ remote / difficult PHCs. They are engaged on incentive basis especially in Maternal and Child health activities. Advantage of having ASHAs is that she being from the same

community, it is easy for her to motivate the Ante natal mothers. To reduce the attrition of ASHAs and to ensure performance, performance based group / team incentives for ASHA / ANM / AWW is being implemented. Total maximum annual team incentive per team is Rs.25,000.

### **13.26 Birth waiting room in 17 tribal PHCs:**

On analysis of the maternal deaths, it was observed that the tribal mothers find it difficult to reach the delivery point on time. Though 108 vehicles with four-wheel drive facility are provided due to the long distance to be travelled it was observed that if the tribal mothers were admitted in advance, i.e two weeks before the Expected Date of Delivery in birth waiting room established at the foot hills of the 17 PHCs in tribal areas it would ensure that safe delivery happens under institutional care. If referral to a CEmONC centre is required, it can be done well in advance. During the year 2017-18,

3,009 mothers have been provided with diet in these birth waiting rooms.

### **13.27 Tribal Mobile Outreach Services:**

Already there are 396 Mobile Medical Units are being operated throughout Tamil Nadu. To augment the Mobile Outreach Services in tribal areas additional 20 mobile medical units are also operational through NGOs in tribal blocks. This mobile outreach team with one Medical Officer / Staff Nurse / Lab Technician / Driver conducts minor ailment clinic, Antenatal screening, NCD screening and lab tests. Free drugs are also distributed. These tribal mobile teams also help in screening Haemoglobinopathies among 10<sup>th</sup> & 12<sup>th</sup> Standard Tribal school children and school dropouts. 3,25,366 out patients have been treated during the year 2017-18.

### **13.28 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 76 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. This ensures that timely referral of tribal people to higher referral centres. Regular replacement of these vehicles ensures that these vehicles are road worthy.

**13.29 Tribal Counselors:** Tribal counselors act as ambassadors between the health systems and tribal community. 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 Counselors 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.

### **13.30 Infrastructure Strengthening:**

Infrastructure is a key component in effective service delivery. NHM extends financial support for primary, secondary and tertiary health care. An exclusive division under PWD named as PWD – Medical has been created for effective and timely construction of health care facilities. Till date 444 PHCs, 315 UGPHC, 499 FRU buildings, Eight Centre of Excellence MCH buildings have been operationalized. Four new centre of excellence MCH buildings are under construction. In addition to service delivery, in-service training through training centers is a key initiative. 46 buildings were built for training centers and another nine are under construction. This effective infrastructure strengthening

ensures that poor common public who approach Government health facilities get quality health care.

**13.31 Untied Funds:** For successful and effective functioning of any health care delivery system flexipool funds should be available with the incharge Medical Officer. This will ensure completion of minor civil work, minor repair works of equipment, consumables, upkeep of facilities and improvement of patient amenities. This reduces the Out of Pocket expenditure of the poor people approaching the public health facilities and improves the patient satisfaction. This facility is available for HSCs / additional PHCs / Urban PHCs / CHC / Sub District Hospitals / District Hospitals.

**13.32 Village Health, Water, Sanitation and Nutrition Committee (VHWSNC):** For successful implementation of any Government system, participation of local leaders is the key.

Based on this concept, VHWSNC is constituted with VHN, local panchayat president, representative of SHGs. Rs.10,000 per VHWSNC is released per year and this fund is jointly operated by VHN and Panchayat President. There are about 15,015 VHWSNC in Tamil Nadu. This will ensure that community monitoring is also a part of this activity.

### **13.33 Mobile Medical Units (MMUs):**

Tamil Nadu is the only State having over 2220 PHCs distributed in rural and urban areas. To ensure that the concept of NCD drug protocol is followed regularly, a Mobile Medical Unit has been introduced with 416 teams on a fixed tour programme (FTP) to 40 villages per month. These camps are conducted in Anganwadi centres / HSCs. This will also ensure that regular follow up of high risk mothers, NCD drug distribution, TB & Leprosy cases follow up, SNCU discharge follow up, RBSK operated cases follow

up. The FTP of the MMU unit is hosted in the district website. This ensures the community monitoring of the programme. GPS installation for tracking the vehicle is also under progress.

### **13.34 Oral Health Care Services in PHCs:**

This service is the need of the hour, due to availability of chocolates, carbonated drinks and other junk foods even at the village level. Dental problems are a cause of high OOPE for health care. Hence, the establishment of dental units at CHCs / SDH is essential. NHM supports 389 dental units with Dentist and Dental assistants. State of the art equipment like Dental Chair, Dental X ray unit, drugs and consumables are provided by NHM. Advanced treatment protocols like Root canal treatment, implants, dentures are also being done.

### **13.35 Oral Pre-Cancer Screening**

**Programme:** "Oral Pre-Cancer Screening Programme" was launched in August 2016 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 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. The software is developed and maintained by National Informatics Centre. This programme is now been upscaled to 295 units in the State in the current year. Totally 38,88,164 people have been screened, 13,940 identified as suspects and 172 were confirmed as cancer patients by

punch biopsy and referred for further management.

### **13.36 Quality Assurance in Government Health Facilities**

National Quality Assurance Standard Programme (NQAS) was launched in January 2015 with the aim to improve the quality of healthcare services in Government Health Facilities. Under this Programme continuous periodic assessments based on the NQAS Checklist are being conducted at facility level, District and State level under the monitoring of State and Regional Quality Assurance Units. The gaps identified in the assessments are enlisted, prioritized and corrected in order to improve the quality standards along with analysis of the Key Performance Indicators and Patient Satisfaction Survey reports from the facilities. Further '**Mera Aspataal**' an online Patient Satisfaction Survey is conducted in all District head quarters

Hospitals on various parameters like cleanliness, staff behavior, quality of treatment and other causes of dissatisfaction like long waiting time, non-availability of drugs etc and the reports are analyzed and addressed eventually leading to Patient Satisfaction. Under National Quality Assurance Standard (NQAS) Programme in 2016-17, seven District Head Quarters Hospitals achieved NQAS State Certification and have applied for National Certification. In 2017-18, 11 District Head Quarters Hospitals, 18 Taluk / Non-taluk Hospitals, 5 Community Health Centres and 1 Primary Health Centre have qualified for State Certification.

**13.37 Kayakalp Award Scheme (Cleanliness Drive and Award) undertaken in Public Health Facilities:** Swachh Bharat Abhiyan introduced on 2nd of October, 2014 to promote cleanliness in public space. Cleanliness and hygiene are good for healthy living, but it



becomes a need when we talk about health care facilities. Cleanliness not only prevents the spread of infection but also provides the patients and the visitors a positive experience. National Health Mission, Government of India has launched a national initiative on 15<sup>th</sup> of May, 2015 to promote cleanliness and enhance the quality of public health facilities. The purpose of this initiative is to appreciate and recognize their effort to create a healthy environment. The name of this initiative is "KAYAKALP". Swachhta guidelines for health facilities along with this initiative have also been issued.

In 2017-2018 kayakalp award programme activity implemented in all hospital /center. Government Headquarters Hospital (GHQH), Cuddalore (1<sup>st</sup> prize Rs.50 lakh), Government Headquarters Hospital (GHQH), Manapparai (2<sup>nd</sup> prize Rs.20 lakh), 21 Government Headquarters Hospitals (GHQHs) (Commendation Award

Rs.3 lakh each), Sub-District Hospital (SDH), Aruppukottai & CHCs Mugaiyur (1<sup>st</sup> prize Rs.15 lakh), each SDH Harur & CHCs Nambiyur (2<sup>nd</sup> prize Rs.10 lakh each), 54 SDH and 110 CHCs (Commendation award Rs.1 lakh each), 31 Primary Health Centres (1<sup>st</sup> prize Rs.2 lakh in each of 31 Districts) and 155 PHCs (Commendation award Rs.50,000 each) have achieved Kayakalp Awards.

### **National Urban Health Mission (NUHM)**

**13.38** The goal of National Urban Health Mission is to “improve the health status of the urban population in general, but particularly of the poor and other disadvantaged sections, by facilitating equitable access to quality healthcare through a revamped public health system, partnerships, community based mechanism with the active involvement of the urban local bodies”. As per 2011 census, 3.49 crore population live in urban areas out of which 59 lakh (17%) of the population live in urban

slum and there has been an increase in the growth of the urban slum population to the total urban population from 10.4% (2001 census ) to the 17% as per 2011 census. Hence, the Government of India 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 population (Homeless, street children, rag pickers, brick kiln workers, construction workers and sex workers) by establishing UPHCs and strengthening existing Urban Health Centres (UFWCs, UHPs, Dispensaries). According to the GOI guidelines, Government of Tamilnadu have established 71 new Urban Primary Health Centres and strengthened 349 existing Urban Health Centres (Total 420 UPHCs) in 12 Corporations including Greater Chennai Corporation and 75 Municipalities with more than 50,000 population. In Municipalities with less than 50,000 population, 40 UPHCs were established with NRHM support.

## ABSTRACT

| <b>S. No</b> | <b>GCC &amp; Rest Of TN</b> | <b>No.of UPHCs</b> |
|--------------|-----------------------------|--------------------|
| 1            | Greater Chennai Corporation | 140                |
| 2            | Other Corporations          | 154                |
| 3            | Municipalities              | 166                |
|              | <b>TOTAL</b>                | <b>460</b>         |

| <b>Sl. No</b> | <b>Name of the Corporation</b> | <b>No. of UPHCs</b> |
|---------------|--------------------------------|---------------------|
| 1             | Greater Chennai Corporation    | 140                 |
| 2             | Coimbatore Corporation         | 32                  |
| 3             | Dindigul Corporation           | 4                   |
| 4             | Erode Corporation              | 10                  |
| 5             | Madurai Corporation            | 31                  |
| 6             | Salem Corporation              | 16                  |
| 7             | Tiruchirappalli Corporation    | 18                  |
| 8             | Tirunelveli Corporation        | 9                   |
| 9             | Tirupur Corporation            | 17                  |
| 10            | Thoothukudi Corporation        | 7                   |
| 11            | Vellore Corporation            | 10                  |

| <b>Sl. No</b> | <b>District</b> | <b>HUD</b>     | <b>No. of UPHCs</b> |
|---------------|-----------------|----------------|---------------------|
| 1             | Coimbatore      | Coimbatore     | 4                   |
| 2             | Cuddalore       | Cuddalore      | 6                   |
| 3             | Dharmapuri      | Dharmapuri     | 1                   |
| 4             | Dindigul        | Palani         | 1                   |
| 5             | Erode           | Erode          | 1                   |
| 6             | Kancheepuram    | Kancheepuram   | 5                   |
|               |                 | Chengalpet     | 10                  |
| 7             | Kanyakumari     | Nagercoil      | 5                   |
| 8             | Karur           | Karur          | 4                   |
| 9             | Krishnagiri     | Krishnagiri    | 5                   |
| 10            | Madurai         | Madurai        | 1                   |
| 11            | Nagapattinam    | Nagapattinam   | 3                   |
| 12            | Namakkal        | Namakkal       | 7                   |
| 13            | Perambalur      | Perambalur     | 1                   |
| 14            | Pudukottai      | Pudukottai     | 2                   |
|               |                 | Aranthangi     | 0                   |
| 15            | Ramanathapuram  | Ramanathapuram | 1                   |
|               |                 | Paramakudi     | 2                   |
| 16            | Salem           | Salem          | 3                   |
| 17            | Sivagangai      | Sivagangai     | 4                   |
| 18            | Thanjavur       | Thanjavur      | 8                   |
| 19            | The Nilgris     | Udhagamandalam | 2                   |
| 20            | Theni           | Theni          | 4                   |
| 21            | Tirunelveli     | Tirunelveli    | 0                   |
|               |                 | Sankarankovil  | 5                   |

|    |                 |                 |   |
|----|-----------------|-----------------|---|
| 22 | Tirupur         | Tirupur         | 2 |
| 23 | Tiruvallur      | Tiruvallur      | 2 |
|    |                 | Poonamallee     | 8 |
| 24 | Thiruvannamalai | Thiruvannamalai | 3 |
|    |                 | Cheygar         | 1 |
| 25 | Tiruvarur       | Tiruvarur       | 2 |
| 26 | Thoothukudi     | Thoothukudi     | 0 |
|    |                 | Kovilpatti      | 2 |
| 27 | Vellore         | Vellore         | 3 |
|    |                 | Tiruppathur     | 8 |
| 28 | Villupuram      | Villupuram      | 3 |
|    |                 | Kallakuruchi    | 1 |
| 29 | Virudhunagar    | Virudhunagar    | 2 |
|    |                 | Sivakasi        | 4 |

NUHM endeavours to achieve its goal through:

- Need-based city specific urban health care system to meet the diverse health care needs of the urban poor and other vulnerable sections.
- Partnership with community and local bodies for a more proactive involvement in planning, implementation, and monitoring of health activities.

- Availability of resources for providing essential primary health care to urban poor.

**13.38.1:** In addition to providing comprehensive primary health care services, NUHM provides special services namely 1) Polyclinic and outreach services 2) Special outreach camps, 3) Urban health nutrition days (UHNDs) are conducted.

**Special Outreach Camp:** Outreach camps are conducted in UPHC service area especially hard to reach vulnerable areas with the help of UPHC staff and specialists hired from outside. Since its inception, 11,301 camps have been conducted.

**Urban Health Nutrition day:** UHN days are conducted by Urban Health Nurse @ 1 UHN day/UHN/Month. Health education regarding nutrition, antenatal care, personal hygiene etc. are provided to adolescent children and women

of reproductive age group in Local ICDS centres and 9,534 UHN days have been conducted.

**13.38.2 Urban RBSK:** Rashtriya Bal Swasthya Karyakram (School Health Program) aiming at early identification and early intervention for children from birth to 18 years to cover Defects at birth, Diseases, Deficiencies and Developmental delays hitherto implemented in rural PHC is also extended under NUHM as 27 RBSK units (12 units for 5 Corporations : Salem, Madurai, Coimbatore, Tirupur and Trichy) and 15 units for Greater Chennai Corporation). The identified cases will be sent to District Early Intervention Centre (DEIC) for further treatment.

**13.38.3 Urban Mobile Medical Units:** 10 units has been approved in 2017-18 by Government of India under NUHM (Five Greater Chennai Corporation and five in Corporations - Coimbatore, Madurai, Trichy, Tirupur and Salem)



to reach the unreached population of the slum, migrant population and the workers of unorganized sector, etc. by devising a fixed tour programme for which Rs.270 lakh was approved.

**13.38.4 National Quality Assurance Standard (NQAS) Programme:** Under National Quality Assurance Standard (NQAS) Programme in urban areas in 2016-17, the first step of internal assessment has been started in all Urban Primary Health Centres–UPHCs. For the upcoming years target of 3 to 5% of facilities (UPHCs) has been fixed for undergoing national certification.

**13.39 Kayakalp Programme (Award to Urban Public Health Facilities):** The National Health Mission, 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. As the first principle of

health care is “to do no harm” it is essential to have our health care facilities clean and to ensure adherence to the infection control practices. The kayakalp programme was initiated and implemented in 420 Urban Primary Health Centres in 2017-18. In the year 2017-18, 7 UPHCs from rest of Tamil Nadu and five UPHCs from Greater Chennai Corporation (GCC) and 2 UCHCs from GCC were nominated for the Kayakalp award and reported to GOI. For the upcoming 2018-19, it is aimed to work towards 15-20 % of UPHCs to attain the award for best performing and cleanliness Kayakalp award.

**13.40 Diplomat in National Board (DNB) Programme in District Hospitals:** District hospitals are on par with tertiary care hospitals in terms of service delivery. However, qualified human resources is a major constraint in secondary care hospitals. To improve the services in secondary care hospitals DNB courses

are initiated. 48 seats in 11 District hospitals are approved in the first phase. Extension of this programme in second phase for additional six seats in three district hospitals and 36 seats in six Medical College Hospitals in various fields including Emergency medicine is proposed for the current year. This programme is a real feather in the cap for Directorate of Medical Services institutions.

### **13.41. New Initiatives in 2018-19**

**13.41.1. Hemoglobinopathies:** Tamil Nadu is the first State among the South Indian States to implement this programme for early detection of Hemoglobinopathies like sickle cell anaemia, Thalassemia among the tribal population. The timely identification and genetic counselling will prevent the transmission of the carrier from parent to offspring. This breaks the propagation of the disease. NHM-TN along with line departments has implemented screening of

Hemoglobinopathies (Sickle Cell Anaemia & Thalassemia) in adolescent children studying in 10<sup>th</sup>, 12<sup>th</sup> standard and unmarried school dropouts above the age of 14 in 30 selected tribal blocks in 13 districts since November 2017. The programme implemented at a cost of Rs.216.00 lakh in Dharmapuri, Salem, Krishnagiri, Namakkal, Nilgiris, Coimbatore, Tiruvannamalai, Villupuram, Vellore, Thiruchirapalli, Dindigul, Erode and Kanyakumari Districts in phased manner. The programme involves primary screening with the support of Tribal Mobile Outreach Services (TMORS) and final confirmatory diagnosis at five Government Medical College Hospitals with HPLC machine which is a highly specific and sensitive equipment. The children are provided with genetic counseling at District Early Intervention centers. Between November 2017- March 2018; 2511 children have been screened for the disease with a positivity rate of 9.5%. In the

coming months, the programme will also be expanded to screen antenatal mothers. With the successful implementation of the programme the incidence of Haemoglobinopathies trait will be reduced and the future generations will become free from haemoglobinopathies.

**13.41.2 Paediatric Resuscitation & Emergency Management (PREM) units:** With the Successful implementation of SNCU, Infant Mortality rate and Neonatal Mortality rate has gone down considerably. Hence, the focus has shifted to reduction of under five mortality rate. In order to achieve this, the PREM units have been established in 28 health facilities including two medical college hospitals and 26 District Hospital / Taluk / Non-taluk Hospitals. Continuous Positive Airway Pressure (CPAP) Ventilator and other required equipment with exclusive pediatric beds have been provided to manage children more than 1 month of age. In

the second phase, five Medical Colleges have been planned for establishment of PREM units in the year 2018-19.

### **13.41.3 Comprehensive Primary Health**

**Care Services:** Universal Health Coverage (UHC) project has been piloted successfully in 3 pilot blocks of Veppur, Shoolagiri and Viralimalai in 3 Health Unit Districts (HUDs) of Perambalur, Krishnagiri and Pudukottai respectively covering 67 HSCs and 17 PHCs (including block PHCs) since 2016. As per the independent evaluation report for the UHC pilot implementation done by IIT Madras, the pilot was very successful with increased access to HSCs, diversion of patients from higher level public facilities, diversion of patients from private hospitals, significant reduction in Out of pocket expenditure (OOPE) for patients seeking care from both public and private facilities, and significantly lower Government spending per OP visit in pilot HSCs. During the year 2017-18, the total number of

patients accessed these 67 HSCs for health services as per UHC App is 1,65,938 (Veppur-44,284; Viralimalai- 58,382; Shoolagiri- 63,272) which is approximately 12 OPs per day per HSC. UHC aims that all people receive the health services without suffering financial hardship by paying for them. The Sub-Centre strengthening is the pillar for the UHC program. The Government had made an announcement for up-scaling of UHC programme to additional 39 blocks @ 1 block per HUD in the year 2017-18. In total the up-scaling process is on-going in 918 HSCs and 184 PHCs (including block PHCs) at a total cost of Rs.2,474.07 lakh. During the year 2018-19, the State is planning to transform its 985 Health Sub-Centres to Health & Wellness Centres (HWCs) with Government of India support. The primary level activities in the proposed HWC will be led by the team of a Mid-level Health Provider (MLHP) after completion of a bridge course on community health. The HWCs will provide a set of 12 comprehensive set of

services including Preventive, Promotive, curative Rehabilitative and Palliative care for a package of services related to RMNCH+A, Communicable diseases, Non-communicable diseases, Ophthalmology, ENT, Dental, Mental, Geriatric care, treatment for acute simple medical conditions and emergency & trauma services.

**13.41.4 Urban Polyclinics:** To provide comprehensive specialty care to the urban poor, the concept of "Polyclinic – Specialist Outpatient Clinic" has been implemented in the UPHCs in the evening (4.30-8.30 pm). Polyclinic is envisaged to reduce waiting time of the patient, minimize the Out of Pocket Expenditure and Specialists of General Medicine, Pediatrics, Dental, Ophthalmology, ENT, Obstetrics & Gynaecology are hired based on guidelines adhering to Government of India guidelines and operates as fixed day fixed specialty at the UPHC itself. It is now implemented in selected 96 Urban Primary Health Centres (UPHCs) as one



polyclinic for 2.5 lakh UPHC at a cost of Rs.1,509 lakh and 1,07,139 people have been benefited. Since specialists are hired to the UPHC with case by case reference by the UPHC medical officer, it is a boon to daily wage workers who can access UPHCs easily for evening specialty clinics at no cost without losing daily wages. A web based application for monitoring and evaluation of polyclinics has been piloted in two polyclinics of Greater Chennai Corporation and will be further expanded to all polyclinics.

**13.41.5 Lab Information and Monitoring System (LIMS) in NUHM:** Under NUHM, online monitoring of UPHC labs is envisaged with piloting in five UPHCs in Greater Chennai Corporation. LIMS is aimed at creating an automated workflow in lab environment ensuring lab services in terms of both quantity and quality. It will ensure central availability of data with a dashboard in state level.

**13.41.6 NCD Mobile App:** As an initiative to improve the quality in health care in the State, an user-friendly mobile app has been 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 four 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 is now piloted in three districts (viz., Ariyalur, Coimbatore and Dindigul) and preparatory activities initiated to upscale to other districts.

## Chapter - 14

### TAMIL NADU URBAN HEALTH CARE PROJECT

**14.1** 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 31<sup>st</sup> 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 repayment of 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.

**14.2 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.

**14.3 Locations:** The project is being implemented in 17 cities and is covering 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** Implementation of this project is expected to improve the urban health care by providing state-of-the 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 (CEmONC)**

**15.1** Currently, 126 CEmONC centres are functioning in various Government Hospitals in the State. Of them, 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 CEmONC centres play an important role in the reduction of Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR). Further CEmONC centres functioning in the Government Medical College Hospitals at Chengalpattu, Thanjavur, Vellore and Thiruvannamalai are being upgraded as Centre of Excellence at a total cost of Rs.48 crore. Besides this 6 CEmONC centres at the District and Sub-District Hospitals at Pollachi, Virudhachalam, Kancheepuram,

Tiruchengodu, Attur and Vaniyambadi are being upgraded at a cost of Rs.2.13 crore.

**CeMNC Performance**  
**From 2011-12 to 2017-18**

| Details                          | 2011 -12 | 2012-13  | 2013-14  | 2014-15  | 2015-16  | 2016-17  | 2017-18  |
|----------------------------------|----------|----------|----------|----------|----------|----------|----------|
| Total maternal admission         | 2,27,353 | 2,51,236 | 2,79,605 | 2,79,571 | 4,59,587 | 5,73,954 | 5,35,775 |
| Deliveries                       | 1,41,132 | 1,57,693 | 1,69,980 | 1,70,879 | 2,78,124 | 3,21,622 | 3,39,111 |
| LSCS                             | 62,233   | 73,504   | 87,768   | 90,113   | 1,45,351 | 1,68,282 | 1,74,670 |
| Blood trans- fusion for OG cases | 27,806   | 38,897   | 48,232   | 52,083   | 1,22,273 | 1,23,981 | 1,31,312 |
| Scan for OG Cases                | 1,44,623 | 2,13,992 | 2,77,956 | 3,02,545 | 4,93,013 | 5,30,476 | 5,53,895 |
| Neonatal admissions              | 1,41,890 | 1,24,454 | 1,16,641 | 1,03,344 | 1,40,525 | 1,28,085 | 1,30,100 |

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

## **Chapter - 16**

# **HOSPITAL MANAGEMENT INFORMATION SYSTEMS AND OTHER E-GOVERNANCE INITIATIVES**

## **Health Management Information System (HMIS)**

**16.1** The four major components of HMIS includes:

- i. Hospital Management System (HMS) for capturing real time patient data,
- ii. Management Information System (MIS) for a reporting system pertaining to administrative modules including clinical, finance and HR etc.,
- iii. College Management System (CMS) for covering the academic activities of the Government Medical Colleges and



paramedical institutions under Directorate of Medical Education (DME), and

- iv. University Automation System (UAS) for the academic and office activities of the Tamil Nadu Dr. MGR Medical University.

HMIS has been implemented in a phased manner across 287 Secondary Care Hospitals, 20 Government Medical College Hospitals and allied health institutions, 1,889 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.

## **16.2 New IT Initiatives**

**16.2.1 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 is being rolled out.

### **16.2.2 Equipment Monitoring Information**

**System:** 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.

### **16.2.3 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. 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 thereby facilitating effective monitoring at all levels.

## **Chapter – 17**

### **TAMIL NADU MEDICAL SERVICES CORPORATION LIMITED**

**17.1** The Government of Tamil Nadu set up the Tamil Nadu Medical Services Corporation Limited (TNMSC), as an autonomous organization, with the sole objective of procuring drugs and other medical supplies effectively and efficiently. TNMSC was incorporated under the Companies Act on 1<sup>st</sup> July, 1994 and commenced its business in August, 1994 and became fully operational in the year 1995. Its main mandate is to supply quality medicines to patients accessing public health facilities without any interruption. The Corporation started functioning from 1995 and has been able to achieve its goals. Its success was soon noticed by national and international organisations 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 Functions:** 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 Rajiv Gandhi Government General Hospital, Chennai, Institute of Social Obstetrics and Government Kasturba Gandhi Hospital for Women and Children, 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 to maintain uninterrupted supply to all the health facilities in the State.

**17.3** 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 Essential Drug List (EDL):** The Corporation finalizes the Essential Drug List

(EDL) in consultation with a technical committee comprising the following:

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

The list is periodically revised by this committee, usually once a year. TNMSC Ltd. is procuring and supplying 314 Essential Drugs, 244 Surgical and Suture items, 590 Specialty Drugs and 18 Haemophilic Drugs to all the Government Medical Institutions in the State. It is also fixing the rate contract for Insecticides and Larvicides for purchase by Director of Public Health & Preventive Medicines and local bodies. It is also procuring 223 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.

**17.5** The Corporation also procures and supplies the Sanitary Napkins for the Menstrual Hygiene Programme and Amma Baby Care Kits to the mother and new born babies. Further it has now been entrusted with the task of procuring the Amma Nutrition kits announced in the Budget as part of the increased assistance under the Dr.Muthulakshmi Reddy Maternity Benefit Scheme. 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.



**17.6 Quality Assurance System:** The Corporation ensures strict quality control and assurance system with regard to the medicines and surgicals procured by it. 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 a common batch is taken from the samples received from different warehouses; outer labels or strips are removed to camouflage the identity of the supplier; a separate code number is assigned to this sample and sent to one of the 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.

**17.7 Supply Chain Management:** The Corporation has created a supply chain infrastructure of 32 warehouses at district headquarters. TNMSC Ltd is now taking up the expansion of storage area of existing 31 Warehouses to accommodate the additional volume of Drugs & Medicine to cater the needs of the Government hospitals. Each 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. 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. All the warehouses are interlinked through the ICT system to enable the management to monitor the inventory.

**17.8 Distribution of Medicines:** 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. Distribution of goods to the health facilities is through a passbook; each facility is given a passbook with its entitlement in value fixed by the Heads of Departments. Since allocations are available under different schemes, a facility is given more than one passbook – the Community Health Centre (CHC) has three, whereas the District Hospital has as many as ten. With these indents, either manual or online, the facilities can pick up drugs and other goods from the warehouses. The Corporation has worked out an annual calendar allocating dates for individual facilities. While the CHCs and PHCs lift the drugs with their own vehicles, transport contractors are engaged for delivery to the hospitals – the cost of such transport is met by the Corporation. The secondary and tertiary hospitals lift their requirements once a month, whereas primary care institutions lift them once a quarter. The Corporation's responsibility is to ensure

availability of adequate stocks at the district warehouses to ensure uninterrupted supplies to the facilities. However, any emergency requirement can be fulfilled 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.

### **17.9 Information Technology(IT) System:**

Inventory management including placing of orders, receipt of supplies, distribution to medical institutions, making payment to the suppliers etc in TNMSC is done through IT systems. TNMSC Limited is maintaining a user friendly web site [www.tnmsc.com](http://www.tnmsc.com). User name and password have been provided to all the stake holders and suppliers for specific purposes besides posting salient information about the organization. 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 TNMSC. All the drug warehouses are connected online with the TNMSC 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. 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 is planned along with installation of CCTV at the premises of warehouses and CT/MRI Centres.

#### **17.10 Logistic Support to Hospital Services:**

In addition to drugs and equipment, TNMSC is also procuring important services to hospitals like housekeeping services, biomedical waste

management and IT services. Under housekeeping services 65 hospitals under the control of Director of Medical Education and 78 hospitals under the control of Director of Medical and Rural Health Services are benefited by the service contract finalised by TNMSC. Similarly under biomedical waste management all the hospitals under Director of Medical Education, Director of Medical & Rural Health Services, Director of Public & Preventive Medicine and also hospitals under Chennai Corporation are benefited by the service contract finalised by TNMSC. Further, the upgradation of existing HMIS (Health Management Information System) is finalised by TNMSC and it will support all the hospitals in the state for effective monitoring of drug stock position, inventory of equipment and the patient turn over etc., besides vital information system to the Government.

**17.11 Consultancy Services:** The Corporation has been offering consultancy services, for a nominal fee, to other States, for starting a Corporation like the TNMSC. 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) and also has been requested by the Andaman and Nicobar Island administration to procure for them.

**17.12 'Ockhi Cyclone' Relief:** In November 2017 when the very severe cyclonic storm 'Ockhi', hit the State of Tamil Nadu, the Corporation rose up to the occasion to procure health goods needed such as bleaching powder, lysol, Saline, ORS etc. to prevent any possible epidemic outbreak.



## OTHER SERVICE ACTIVITIES

**17.13 CT Scan Centres:** The Corporation is maintaining 73 CT Scanners (three 128 slice, two 64 slice, forty two 16 slices, twenty two 4 slices and four numbers of single slice CT scanners), at 59 centres in Government hospitals. Two numbers 64 slices CT scanners and three numbers 128 slice CT scanners are also maintained and operated under user charges collection basis. The Corporation is collecting nominal user charges at the rate of Rs.500/- per scan for both in-patients and out-patients and an additional amount of Rs.300/- for contrast cases. For the 64 Slice and 128 Slice CT Scanners user charge is at Rs.3,000/- per scan.

| Sl. No. | CT Scanners | Place                                 |
|---------|-------------|---------------------------------------|
| 1       | 64 Slices   | Government General Hospital, Chennai. |

|   |            |   |
|---|------------|---|
| 2 | 64 Slices  | Government Rajaji Hospital, Madurai.  |
| 3 | 128 Slices | Government Mohan Kumaramangalam Medical College Hospital, Salem.                              |
| 4 | 128 Slices | Tamil Nadu Government Multi Super Specialty Hospital at Omandurar Government Estate, Chennai. |
| 5 | 128 Slices | Government Stanley Hospital, Chennai.   |

In addition to the above, another 16 new CT Scan Centres are being established by TNMSC with 17 CT Scanners in the following new and existing centres at an outlay of Rs.31.67 Crore.

| <b>Sl. No.</b> | <b>Name of the Centres</b>                             |
|----------------|--|
| 1              | Government Hospital, Tindivanam                        |
| 2              | Government District Head Quarters Hospital, Mannargudi |
| 3              | Government Hospital, Hosur                             |
| 4              | Government Hospital, Ulundurpet                        |

|    |   |
|----|---|
| 5  | Government Hospital, Paramakudi                       |
| 6  | Government District Headquarters Hospital, Kulithalai |
| 7  | Government District Headquarters Hospital, Pennagaram |
| 8  | Government Hospital, Mayiladuthurai                   |
| 9  | Government Hospital, Tiruttani                        |
| 10 | Government District Headquarters Hospital, Karaikudi  |
| 11 | Government Hospital, Ambur                            |
| 12 | Government District Headquarters Hospital, Cheyyar    |
| 13 | Government Hospital, Attur                            |
| 14 | Government Hospital, Rajapalayam                      |
| 15 | Government Hospital, Tambaram                         |
| 16 | Government Hospital, Kodaikanal                       |

With the above, the total number of CT Scan Centres would become 75 and total numbers of CT Scanners would be 90.

**17.14 MRI Scan Centres:** The Corporation is also maintaining 18 MRI Scanners at 17 centres and providing MRI scan facility to the public at a nominal charge of Rs.2,500/- and an additional amount of Rs.1,500/- for contrast cases.

| <b>S. No.</b> | <b>Place</b>  |
|---------------|---|
| 1             | 2 Nos. MRI Scan Machines are available at Government General Hospital, Chennai. (1 No. of 1.5 Tesla and 1 No. of 3 Tesla) |
| 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             | Thanjavur Medical College Hospital, Thanjavur.  |

|    |   |
|----|---|
| 9  | Government Mahatma Gandhi Memorial Hospital, Trichy.  |
| 10 | Tirunelveli Medical College Hospital, Tirunelveli.  |
| 11 | Vellore Medical College Hospital, Vellore.  |
| 12 | Chengalpattu Medical College Hospital, Chengalpattu.  |
| 13 | Villupuram Medical College Hospital, Villupuram.  |
| 14 | Dharmapuri Medical College Hospital, Dharmapuri.  |
| 15 | Tamil Nadu Government Multi Super Specialty Hospital, Omandurar Government Estate, Chennai. |
| 16 | Institute of Child Health & Government Hospital for Children, Chennai.                      |
| 17 | Government Royapettah Hospital, Chennai.  |

Further, 5 Nos. of 1.5 Tesla MRI under Public Private Partnership(PPP) mode are established in the Government Medical College Hospitals at Kanyakumari, Thoothukudi, Theni, Sivagangai and Tiruvarur and one No. of 0.35 Tesla MRI Scanner at Government Hospital, Udthagamandalam [Under PPP mode]. In addition to the above, 13 more 1.5 Tesla MRI Scanners are also being established by TNMSC

in the following new centres at an outlay of Rs.45.00 Crore.

| <b>S. No.</b> | <b>Name of the Centres</b> |          |              |                      |
|---------------|----------------------------|----------|--------------|----------------------|
| 1             | Government                 | District | Headquarters | Hospital,            |
|               | Virudhunagar               |          |              |                      |
| 2             | Government                 | District | Headquarters | Hospital,            |
|               | Ramanathapuram             |          |              |                      |
| 3             | Government                 | District | Headquarters | Hospital,            |
|               | Nagapattinam               |          |              |                      |
| 4             | Government                 | District | Headquarters | Hospital, Tiruvallur |
| 5             | Government                 | District | Headquarters | Hospital, Namakkal   |
| 6             | Government                 | District | Headquarters | Hospital,            |
|               | Kancheepuram               |          |              |                      |
| 7             | Government                 | District | Headquarters | Hospital,            |
|               | Cuddalore                  |          |              |                      |
| 8             | Government                 | District | Headquarters | Hospital, Dindigul   |
| 9             | Government                 | District | Headquarters | Hospital,            |
|               | Perambalur                 |          |              |                      |
| 10            | Government                 | Medical  | College and  | Hospital, Pudukottai |
| 11            | Government                 | Medical  | College and  | Hospital,            |
|               | Thiruvannamalai            |          |              |                      |
| 12            | Government                 | Medical  | College and  | Hospital, Karur      |
| 13            | Government                 | Rajaji   | Hospital,    | Madurai              |

The Corporation is in the process of establishing Tele Radiology services in all its CT & MRI Centres to enable faster and 24 hours reporting by the Radiologist.

**17.15 Lithotripsy Centres:** Four Lithotripsy Centres at Rajiv Gandhi Government General Hospital, Chennai, Government Rajaji Hospital, Madurai, Government Medical College Hospital, Coimbatore and Government Medical College Hospital, Tirunelveli 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.

**17.16 Cath Lab Centres:** Establishment of 11 new Cath Lab in the following places is in progress at an out lay of Rs.45.92 Crore funded by NRHM. It is proposed to operate the Cath Lab under the Chief Minister's Comprehensive Health Insurance Scheme by TNMSC.

| <b>S. No.</b> | <b>Biplane Cath Lab Centres</b>                      |
|---------------|--|
| 1             | Government Medical College Hospital, Coimbatore      |
| 2             | Government Stanley Medical College Hospital, Chennai |

| <b>S. No.</b> | <b>Single Plane Cath Lab Centres</b>                 |
|---------------|--|
| 1             | Government Stanley Hospital, Chennai                 |
| 2             | Government Kilpauk Medical College Hospital, Chennai |
| 3             | Government Rajaji Hospital, Madurai                  |
| 4             | Government Medical College Hospital, Coimbatore      |
| 5             | Government Medical College Hospital, Thanjavur       |
| 6             | Government Medical College Hospital, Tirunelveli     |
| 7             | Mahatma Gandhi Memorial Government Hospital, Trichy  |
| 8             | Government Medical College Hospital, Vellore         |
| 9             | Government Medical College Hospital, Chengalpattu    |

### **17.17 Linear Accelerator**

Establishment of nine new Linear Accelerators in the following places is in progress at an outlay of Rs.135 crore funded by State Government and NHM. It is proposed to operate the Linear



Accelerator under Chief Minister Comprehensive Health Insurance Scheme by TNMSC.

| <b>S.No.</b> | <b>Name of the Hospital</b>   |
|--------------|---|
| 1            | Government Arignar Anna Cancer Hospital, Kancheepuram (Replacement) |
| 2            | Rajiv Gandhi Government General Hospital, Chennai                   |
| 3            | Government Royapettah Hospital, Chennai                             |
| 4            | Government Rajaji Hosiptal, Madurai                                 |
| 5            | Government Medical College Hospital, Coimbatore                     |
| 6            | Government Medical College Hospital, Thanjavur                      |
| 7            | Government Medical College Hospital, Tirunelveli                    |
| 8            | Government Medical College Hospital, Thoothukudi                    |
| 9            | Tamilnadu Government Multi Super Speciality Hospital, Chennai       |

**17.18 Cobalt Therapy Unit:** Establishment of new 5 Cobalt Therapy Units and modifying existing 10 units in the following 14 places is in progress at an outlay of Rs.45 crore funded by NHM. It is proposed to operate the Cobalt Therapy Units under Chief Minister's Comprehensive Health Insurance Scheme by TNMSC.

| <b>S.No.</b> | <b>Name of the Hospital</b>  |
|--------------|--|
| 1            | Government Arignar Anna Cancer Hospital, Kancheepuram (Replacement) and (1 New Unit) |
| 2            | Rajiv Gandhi Government General Hospital, Chennai                                    |
| 3            | Government Royapettah Hospital, Chennai  |
| 4            | Government Stanley Medical College Hospital, Chennai                                 |
| 5            | IOG and Government Hospital for Women and Children, Chennai                          |
| 6            | Government Rajaji Hosiptal, Madurai  |
| 7            | Government Medical College Hospital, Coimbatore                                      |
| 8            | Government Medical College Hospital, Thanjavur                                       |
| 9            | Government Mohan Kumaramangalam Medical College Hospital, Salem                      |
| 10           | Government Medical College Hospital, Tirunelveli                                     |
| 11           | Government Medical College Hospital, Dharmapuri                                      |
| 12           | Government Medical College Hospital, Pudukottai                                      |
| 13           | Government Medical College Hospital, Thiruvanamalai                                  |
| 14           | Government Medical College Hospital, Villupuram                                      |

### **17.19 Providing Logistic Support to**

**Payment Wards:** The Corporation is providing logistic support to the pay wards out of revenue collected at the following hospitals and act as the Custodian of Funds for these Centres.

- i. Liver Transplant Centre in the Surgical and Gastroenterology Department in Government Stanley Hospital, Chennai.
- ii. Pay ward (Maternity) in IOG, Egmore, Chennai.
- iii. Pay ward (Maternity) at Kasturba Gandhi Hospital for Women and Children, Chennai.
- iv. Pay wards at Government General Hospital, Chennai.

## **Chapter - 18**

### **TAMIL NADU STATE AIDS CONTROL SOCIETY**

**18.1** Tamil Nadu was one of the first States to constitute the State AIDS Control Society as early as 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). Tamil Nadu has been successful in bringing down the HIV/AIDS prevalence rate from 1.13% in 2001-02 to 0.27% in 2016-17, with an effective participation and commitment of all the Stakeholders and systematic implementation of all AIDS awareness, prevention, treatment and control activities. The aim of the society is to work continuously towards 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.

**18.2** The objectives of the National AIDS Control Programme Phase-IV (NACP-IV) which is under implementation from April 2012 and is jointly funded by the Government of India, World Bank and the Global Fund 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**

### **18.4.1 Integrated Counselling and Testing**

**Centres (ICTCs):** In Tamil Nadu there are 2,374 centers that offer counselling and testing services. TANSACS is supporting 377 Stand-Alone (SA) ICTCs in Medical College Hospitals, District Headquarters Hospitals and Government Hospitals etc. 403 SA-ICTCs are supported by National Rural Health Mission (NRHM) at block level Primary Health Centers & Community Health Centers. 1,367 Facility-Integrated ICTCs at PHC level are also providing counselling and testing services. TANSACS initiated 211 Public-Private Partnership ICTCs (PPP) to strengthen Prevention of Parent to Child Transmission (PPTCT) coverage. In order to extend counseling & testing facility services to the remote and inaccessible areas, 16 Mobile ICTC vans are provided by TANSACS for Coimbatore, Dindigul, Dharmapuri, Erode, Kanyakumari, Krishnagiri, The Nilgiris, Namakkal, Salem, Sivagangai,

Theni, Tiruvannamalai, Tiruchirappalli, Virudhunagar, Vellore and Chennai Districts. These mobile ICTC are equipped with TV & DVD and being manned by a Counsellor and Lab Technician to provide counselling and testing services, respectively to people living in hard to reach areas of the above Districts. These vehicles are operated by the respective District AIDS Prevention and Control Units (DAPCUs). The National AIDS Control Organization (NACO), New Delhi has recently revised the ICTC guidelines into HIV Counselling and Testing Services (HCTS) facilities guidelines 2016.

All HCTS facilities have been divided into two groups:

- Screening Facilities (F-ICTC, PPP-ICTC, TI-ICTC)
- Confirmatory Facilities (Stand Alone ICTC)

Early testing and diagnosis, on a voluntary basis, is the gateway of HIV prevention,

treatment, care and other support services. The challenge is to increase access to and uptake of HIV testing among priority populations. HCTS continues to envisage the provisioning of comprehensive services in an integrated manner and not limited to HIV testing. HCTS comprises of:

- i. counselling (pre-test counselling, informed consent and post test counselling);
- ii. testing and prompt delivery of test results with embedded quality assurance;
- iii. ensuring audio-visual privacy and confidentiality;
- iv. linkages to appropriate HIV prevention, care, support and treatment services. Tamil Nadu meticulously follows “5C”s (Confidentiality, Counseling, Consent, Correct test results and Connection).

**18.4.2. Prevention of Mother to child transmission of HIV during pregnancy, delivery or breast feeding:** This is the primary cause of HIV infection among children. The Government of India is committed to eliminating



HIV and Syphilis amongst newborns through universal screening of pregnant women for HIV and Syphilis as an essential component of the ANC service package. To achieve this objective, ongoing Prevention of Parent to Child Transmission (PPTCT) services are being implemented in close collaboration with the Reproductive and Child Health (RCH) programme of the National Health Mission (NHM) and to scale up prevention and care interventions among women of child – bearing age and their families with a package of services which include primary prevention, family planning, voluntary counseling and confidential testing, lifelong Anti-retroviral therapy and counseling on infant feeding practices. In order to reduce HIV related morbidity / mortality among the newborns “Early Infant Diagnosis” programme is implemented in the State through ICTCs. Under PPTCT new regimen (ARV prophylaxis), HIV exposed babies who are born

to HIV positive mothers are initiated on Nevirapine syrup up to six / twelve weeks from birth. All identified HIV positive mothers and infected infants are being provided with life- long ART.

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

**18.4.3.1 Designated STI/RTI Clinics:** 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. There are 210 Designated STI/RTI Clinics (DSRC) "Sugavazhvu Maiyam" functioning in Government Medical College Hospitals, Government Headquarters Hospitals and Government Hospitals at taluk level. 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 STI Reference, Research and Training centre (RSRRTC) Laboratory has been established in Institute of Venereology, Madras Medical College, Chennai. Further four State Reference Centres (SRCs) have been established at Medical Colleges in Madurai, Coimbatore, Tirunelveli and Chennai (Stanley Medical College and Hospital) for technical support, Operational Research and training in STI/RTI programme.

**18.4.4 Targeted Intervention:** Currently, 71 NGOs/CBOs are functioning and services are provided to 71,728 HRG Population (FSW-39661, MSM-28451, TG-3272, IDU-344), Migrants-57861 and Truckers-25065. Employer Led Model (ELM) to reach out to industry workers and unorganized sectors is implemented in 32 industries. This programme is implemented

by the industries / corporate for their own employees. This 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.

**18.4.5 Link Workers Scheme:** To provide prevention to care continuum of services to rural based High Risk Groups, vulnerable population and bridge population (Truckers / Migrants) this scheme is being implemented in 100 villages based on the epidemiological profile are selected in each of the 14 districts where it is under implementation and HIV related services are provided to 6,517 HRG Population through this

scheme (FSW-5,671, MSM-840, TG-6), Migrants-25,694 and Truckers-8,373.

**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.

**18.4.7 Blood Safety:** With a view to provide adequate, safe and quality blood and blood components to the needy patients in Tamil Nadu, 296 Blood Banks (State Government Blood Banks – 89, Central Government Blood Banks – 9 and Private Blood Banks – 198), 150 Blood Components Separation Units (Government - 38 and Private - 112) and 533 Blood Storage Centres (Government - 393 and

Private - 140) are functioning. In the Government Hospitals, 99% of the collected blood units are received from voluntary blood donors. 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.

**18.5 Information, Education and Communication (IEC):** 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. Such 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):** To ensure service facilities at the grass root level, the persons Living with HIV / AIDS (PLHIV) and Community Based Organisations (CBOs) are implementing the project and programmes at the district level and the same is also being monitored by them. 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 provide 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):** This 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) and is implemented in association with Tamil Nadu State Legal Services Authority (TNSLSA).

**18.5.4 Red Ribbon Club (RRC):** To create awareness and to raise the risk perception and behavioral changes among the youth, TANSACS was the first to establish Red Ribbon Clubs (RRC) in the year, 2005. There are 2,179 Red Ribbon Clubs functioning in Arts and Science, Polytechnic, Engineering, Medical, B.Ed colleges and Teacher Training Institutions in the State.

**18.5.5 Life Skill Education Programme in Schools (LSEP):** Information on Life Skills and knowledge on prevention of HIV/AIDS is provided under this programme in 9,580 schools among the 9<sup>th</sup> and 11<sup>th</sup> standard students in Tamil Nadu. It is implemented through State



Council of Educational Research and Training (SCERT).

**18.6 Care, Support and Treatment:** For the provision of life-long Care, Support and Treatment to people detected as HIV positive is made available through the ART centres. Routine 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. In May 2017, NACO has rolled out “Test & Treat” policy based on which any patient detected HIV Positive is eligible for ART irrespective of CD4. Currently, 1,13,000 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 45 ART centres. Apart from this, 31 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 and receives reports from all the units of TANSACS through this system.

**18.8 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 1<sup>st</sup> February, 2017 to 30<sup>th</sup> April, 2017.

**18.9 District AIDS Prevention and Control Unit (DAPCU):** 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.

**18.10 Integrating Social Benefits:** The Government of Tamil Nadu has established a trust for providing assistance to Orphan and Vulnerable Children. Through the Tamil Nadu Trust for Children affected by AIDS established by the Government with a corpus fund of Rs.9.5 crore nutritional and educational support

to HIV infected and affected children is provided. A monthly pension amount of Rs.1,000/- is being provided under the 'Honorable Chief Minister's Uzhavar Pathukappu Thittam' to the 10,260 PLHIVs holding farmers card. This scheme is further extended to the children of infected farmers. 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.

While the State has shown tremendous progress in this field, it is acutely aware that the work has to be continued without any slackness so that the targets set namely zero fresh cases, zero deaths due to HIV/AIDS and Zero discrimination is achieved.

## **Chapter - 19**

### **TAMIL NADU STATE BLINDNESS CONTROL SOCIETY**

**19.1** National Programme for Control of Blindness (NPCB) was launched in the year 1976 as a 100% Centrally Sponsored scheme with the goal to reduce the prevalence of blindness from 1.4% to 0.3%. As per the Survey in 2001-02, prevalence of blindness was estimated to be 1.1%. Rapid Survey on Avoidable Blindness conducted under NPCB during 2006-07, subsequently, showed a reduction in the prevalence of blindness from 1.1% (2001-02) to 1% (2006-07). Various activities/ initiatives have been undertaken during successive Five Year Plans under NPCB which have been targeted towards achieving the goal of reducing the prevalence of blindness to 0.3% by the year 2020.

**19.2 Main causes of blindness:** The estimates of the main cause of Blindness are as follows: Cataract (62.60%), Refractive Error (19.70%), Corneal Blindness (0.90%), Glaucoma (5.80%), Posterior Segment Disorder (4.70%), Others (6.39%) while the Estimated National Prevalence of Childhood Blindness / Low Vision is 0.80 per thousand.

**19.3 Current Goals and Objectives of NPCB:**

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

- iii. Strengthening and upgradation of Regional Institutes of Ophthalmology to become centre of excellence in various sub-specialities of ophthalmology
- iv. Strengthening the existing and developing additional human resources and infrastructure facilities for providing high quality comprehensive eye care in all districts;
- v. To enhance community awareness on eye care and lay stress on preventive measures;
- vi. Increase and expand research for prevention of blindness and visual impairment
- vii. To secure participation of voluntary organizations/private practitioners in eye care

**19.4** The implementation of the said programme was 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. The TNSBCS is a registered body and is headed by an ophthalmologist in the rank of Joint Director and above, 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 Chairman and the programme is executed by District Project Manager (DPM), a senior ophthalmologist from the District Head Quarters Hospital/Medical College Heads of Department. Since 01.04.2007 the TNSBCS has been brought under the overall control of Mission Director of the State Health Society and is a part of Non-Communicable Diseases Programme.



**19.5** Under NPCB, the cataract operations, which is the main reason for avoidable blindness, are done at free of cost both in Government Hospitals and Private Hospitals(NGO facility) and a grant-in-aid of Rs.1,000/- per operation is allowed to the NGOs. This has been increased under the latest guidelines.

**19.6** 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. 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.

**19.7 The achievements in the year 2017-18:**

- About four lakh cataract surgeries were performed.

- A pilot project under assistance of Queen Elizabeth trust and Indian Institute of Public Health (IIPH), Hyderabad to screen for Diabetic Retinopathy eye ailment due to diabetic which was initiated at the Community Health Centre level in Tirunelveli district is continuing.
- A project to screen for Retinopathy of prematurity eye ailment in new born children is ongoing 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.
- Tamil Nadu continues to stand first in Eye Donation in India
- Ophthalmic equipments supplied to the Medical College Hospitals at Tiruchirappalli, Thanjavur and Madurai at a cost of Rs.3 crore.

- Funds have been released for the procurement of ophthalmic equipments to the Dharmapuri, Salem, Tiruvannamalai, Kanyakumari Medical College Hospitals and Regional Institute of Ophthalmology and Government Ophthalmic Hospital Egmore, Chennai at a cost of Rs.5 crore.

### **19.8 The plans for the year 2018-19:**

- Enhancing infrastructure in Regional Institute of Ophthalmology and Government Ophthalmic Hospital on par with All India Institute of Medical Science Centre, New Delhi
- Continuing cataract operations both in Government and NGO sector, with Grants-in-aid from Government of India along with State contribution
- Training of District Ophthalmologists/District Programme managers in Glaucoma and ROP in Regional Institute of Ophthalmology and other Medical Colleges and Institutions.

## Chapter - 20

### REVISED NATIONAL TUBERCULOSIS CONTROL PROGRAMME

**20.1** The large scale implementation of the Indian Government's Revised National Tuberculosis Control programme (RNTCP) was started in 1997 and is implemented throughout the State of Tamil Nadu from the year, 2002. In March 2006, RNTCP-II was designed to consolidate the gains achieved in RNTCP-I, and to initiate services to address TB/HIV, Multi Drug Resistant (MDR)-TB and to extend RNTCP to the private sector. RNTCP used the World Health Organisation (WHO) recommended Directly Observed Treatment Short Course (DOTS) strategy. With the RNTCP both diagnosis and treatment of TB are free. There is also, at least in theory, no waiting period for patients seeking treatment and TB drugs. The initial objectives of the RNTCP in India were:

- to achieve and maintain a TB treatment success rate of at least 85% among new sputum positive (NSP) patients
- to achieve and maintain detection of at least 70% of the estimated new sputum positive people in the community
- new sputum positive patients are those people who have never received TB treatment before, or who have taken TB drugs for less than a month.

**20.2** The RNTCP aims at detecting maximum number of Tuberculosis patients, especially the sputum positive (infectious type) TB patients and curing them through direct short term DOTS Centres (6-8 months). 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'. Chennai Corporation has been de-centralized to five RNTCP districts for better monitoring of the programme. 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 Standard for TB care in India (STCI) 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.

### **20.3 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 and
- To improve the treatment outcome of TB care in private sector



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

**State and District Infrastructure:** In Tamil Nadu, a 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. The State Drug Store (SDS) and Intermediate Reference Laboratory (IRL) are functioning under STDC. District TB Officers (DTO) posted in district are in charge of the Programme at district level.

**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:** There are 835 Designated Microscopy Centres (DMC) in the State. One 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. So far 15,987 (as on 31.03.2018) private health facilities got registered in **NIKSHAY**.

**No. of TB cases through NIKSHAY NOTIFICATION:**

|                         |               |
|-------------------------|---------------|
| 2013                    | 2,560         |
| 2014                    | 4,804         |
| 2015                    | 5,747         |
| 2016                    | 12,345        |
| 2017                    | 21,042        |
| 2018 (as on 31.03.2018) | 4,572         |
| <b>Total</b>            | <b>51,070</b> |

**National Strategic Plan (NSP)  
2012 – 2017**

**20.5** There had been a number of five year National Strategic Plans (NSPs) since the start of the RNTCP. This ambitious plan, the NSP 2012 – 2017 had the aim of achieving universal

access to quality diagnosis and treatment. Before this there was little treatment available through the RNTCP for the treatment of drug resistant TB. A number of significant improvements were made during the five years of the plan.

**20.6 Launch of the NSP 2017 – 2025:** In 2017, it was announced that the national goal was now the elimination of TB in India by 2025. At the same time the launch took place of the next five year plan, the NSP 2017 – 2025. The NSP proposes bold strategies with commensurate resources to rapidly decline TB in the country by 2030 in line with the global End

TB targets and Sustainable Development Goal's to attain the vision of a TB-free India.

**20.7 Vision:** TB-Free India with zero deaths, disease and poverty due to tuberculosis.

**20.8 Goal:** To achieve a rapid decline in burden of TB, morbidity and mortality while working towards elimination of TB in India by 2025. The four thrust areas -

- i. include private sector engagement,
- ii. plugging the leak from the TB care cascade,
- iii. active TB case-finding among key populations (socially vulnerable and clinically high risk) and
- iv. specific protection for prevention from development of active TB in high risk groups.

## 20.9 Current 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               | 3.1                     | 134                                      | 50  | 3:1                               | 90%                    | 84%       | 90%          |

| Program Indicators as per the Revised Technical & Operational Guidelines |                         |   |  |   |  |                        |                             |                  |
|--|-------------------------|---|--|---|--|------------------------|-----------------------------|------------------|
| Year   | % Out Patients examined | Annualized total case Notification per lakh | Annualized Notification rate / Microbiologically confirmed | Annualized Notification rate / Clinically diagnosed | Ratio of Microbiologically confirmed: Clinically diagnosed | Sputum conversion Rate | Microbiologically Cure Rate | New Success Rate |
| 2018<br>(as on 31.3.18)  | 4.1                     | 134.4                                       | 65%  | 35%   | 2:1  | 90%                    | 77%                         | 90%              |

## 20.10 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 Government Medical College Tiruchirappalli 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)** 68 machines are available in the State and all the Districts are having.

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

**20.11 Specialized Treatment Services:**  
**DOTS plus for MDR and XDR TB:** Regional Nodal Centres for treatment of Drug resistant TB cases are established at Government Hospital for Thoracic Medicine, Tambaram, Kancheepuram,

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.

| <b>PMDT SERVICES – MDR TB –YEAR 2018 (Upto 31.03.2018)</b> |                        |                             |
|--|------------------------|-----------------------------|
| <b>No. Screened for MDR TB</b>                             | <b>No. Diagnosed *</b> | <b>No. Put on Treatment</b> |
| 52,629   | 475                    | 265                         |

\* 44 cases diagnosed at CMC Vellore are notified

| <b>PMDT SERVICES – XDR TB –YEAR 2018 (Upto 31.03.2018)</b> |                      |                             |
|--|----------------------|-----------------------------|
| <b>No. Screened for XDR TB</b>                             | <b>No. Diagnosed</b> | <b>No. Put on Treatment</b> |
| 398  | 8                    | 3                           |

**20.12 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. Government Hospital for Thoracic Medicine, Tambaram, Kancheepuram District 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, 164 eligible patients are taking Bedaquiline drug.

**20.13 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 55 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.

| <b>YEAR</b> | <b>HIV TESTED</b> | <b>HIV-TB CO-INFECTED</b> | <b>CPT</b> | <b>ART</b>             |
|-------------|-------------------|---------------------------|------------|------------------------|
| 2010        | 67,797            | 5,837                     | 5,009      | 3,442                  |
| 2011        | 70,611            | 5,413                     | 4,666      | 3,690                  |
| 2012        | 69,279            | 4,982                     | 4,480      | 3,920                  |
| 2013        | 73,916            | 4,903                     | 4,672      | 4,453                  |
| 2014        | 79,175            | 5,284                     | 5,141      | 5,024                  |
| 2015        | 77,292            | 5,289                     | 5,146      | 5,017                  |
| 2016        | 80,049            | 4,392                     | 4,269      | 4,335                  |
| 2017        | 78,276            | 4,049                     | 3,804      | 4,009                  |
| 2018        | 19,007            | 966                       | 875        | 951 (as on 31.03.2018) |

**20.14 Paediatric Services (Diagnosis and Chemoprophylaxis):** Tablet Isoniazid is being given for six months to all children (under six 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.

**20.15 Medical Colleges:** All the Medical Colleges in the State are actively involved in the programme and are contributing 25% to 30% in case finding. State Task Force meetings are regularly conducted. The State also hoisted Zonal Task Force meeting November 2017 involving all the Medical Colleges in the three southern states.

**20.16 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 proposal for the same was approved by CTD. The Intensive case finding strategy has been initiated in high prevalent districts like Chennai, Kancheepuram and Tiruvallur initially and in all the districts in the State in July, 2017. Active case finding was conducted in all the districts of Tamil Nadu and a total population of 30,14,361 was covered 90,722 were tested and diagnosed 3,229 cases in July, 2017. All the districts are continuing active case finding as a strategy in eligible population in their districts. All the districts have at least one CBNAAT machine for testing Rifampicin resistance & the State will be getting 27 more machines. 'ZERO' TB Project in Chennai, a project by Stop TB Partnership has been rolled out in Chennai & was inaugurated by the Honourable Chief Minister of our State. The stop TB project has supplied 10 CBNAAT machines and 40,000 cartridges for the Chennai Corporation. State is planning to roll out

universal DST (Testing for Rifampicin sensitivity for all the diagnosed cases at the time of diagnosis) in a phased manner from January 2018. MDR treatment initiation shall be decentralized to District level in the near future and necessary funds for upgradation of MDR wards have been distributed to the concerned 24 districts, where there are no MDR wards. 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. The State is planning to extend this to all the patients as the FDC (daily treatment) has been initiated from October, 2017 and all efforts are being undertaken to improve the involvement of Private Sector in the Programme and it has shown positive results. Incentives for Private Practitioners at the time of notification as well as when they declare the outcome are to be implemented from 2018.

**20.17** The requirements for moving towards TB elimination have been integrated into the four strategic pillars of “Detect–Treat–Prevent–Build” (DTPB). The NSP period 2017–2025 is a time of immense potential with the hopes of seeing new drugs, regimens and diagnostics. Wider application of ICT tools and health financing methodologies carry with it a promise for a stronger and rapid response to the TB epidemic.



## **Chapter - 21**

### **NATIONAL MENTAL HEALTH PROGRAMME**

**21.1** In recent years, mental health has gained prominence as a public health priority with mental disorders accounting for 13% of years lost due to disease worldwide. The situation is particularly stark in low and medium income countries such as India with 90% of people with mental health issues not receiving interventions that they require to regain health. For over thirty years, there has been a thrust on increasing access to mental health care through community based services. Mental health and promotion of well-being have been included as part of the Sustainable Development Goals (SDGs) indicating a global thrust on allocating resources to the sector as part of national development plans.

**21.2** The recently concluded National Mental Health Survey 2015-16 notes some redeeming features in Tamil Nadu in comparison to other states in India, such as the availability of 68% of essential psychotropic medication at Primary Health Center level, higher density of health workforce and highest number of institutes offering postgraduate studies in psychiatry. The report also highlights that there are significant efforts being undertaken in the mental health sector, both by the Government and civil society organisations in Tamil Nadu. The State has 121 NGOs, the highest number in the country, working within the mental health sector. It has effectively formed a State Mental Health Authority (SMHA), has seasoned professionals in leadership posts, and adequate financial resources for the District Mental Health Programme (DMHP) and the nodal health centre. In light of these strengths, and the intent displayed by the State to be a pioneer in offering

appropriate healthcare, the Government of Tamil Nadu is in a unique position to transform the State Mental Health Care System into one that is responsive, user-centric, and inclusive, thus resulting in the creation of more healthy, resilient communities that embrace diversity.

**21.3** The Government of India has launched National Mental Health Programme with the following objectives to integrate Mental Health with other Health services at the field level:

- To ensure the availability and accessibility of minimum mental health care for all in the foreseeable future, particularly to the most vulnerable and underprivileged sections of the population
- To encourage the application of mental health knowledge in general health care and in social development

- To promote community participation in the mental health service development and to stimulate efforts towards self-help in the community.

**21.4 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.

**21.5** Tamil Nadu has a 1,800 bedded Institute of Mental Health at Chennai which is one of the oldest such institution in India. Further, the Psychiatric wings of the following Medical Institutions under the control of the Directorate of Medical Education have been 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

### **21.6 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. IEC activities are being carried out across the State for the purpose of increasing awareness and removal of stigma for mental illness.

**21.7 District Mental Health Programme:** The District Mental Health Programme is being

implemented in all the District of the State as may be seen from the following details.

| <b>Sl. No</b> | <b>Name of the District</b>   | <b>Year of Implementation</b> |
|---------------|---|-------------------------------|
| 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 District Mental Programme has in the last two years been extended to the remaining seven districts of Ariyalur, The Nilgiris, Thanjavur, Vellore, Krishnagiri, Salem and Coimbatore with this implementation.

### **21.8 New De-addiction Centres:**

Establishment of 30 bedded de-addiction centres in the District Headquarters Hospitals at Kancheepuram, Tiruppur and Cuddalore at a cost of Rs.2.45 crore has been sanctioned and the work is under progress.

### **21.9 Facilities Offering Mental Health Services:**

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 addition to this, Mental Health Clinic Research and Rehabilitation Centre is being established in the Government N.R.Thiyagarajar Memorial Hospital, Theni. 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.

### **21.10 Recent Approaches to Mental Health:**

The main focus of the recent approach to mental health has been to reduce the stigma, provide the care within the premises of general health care system. 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.

**21.11 Role of NGOs:** NGOs have been involved in disseminating the knowledge on early diagnosis and prompt community support towards mental illness and partnering with the Government.

**21.12 Focus on Depression:** 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%. State has made a conscious effort to make people come out and talk about it and address the issue.

**21.13 Agenda for Action in Tamil Nadu:** To advance mental health in Tamil Nadu, there is need for committed and concerted effort to accelerate changes in systems state wide to enable conducive structures and environments that can spiritedly absorb and deliver comprehensive solutions based on a recovery perspective emphasising on meaningful, inclusive and satisfying lives for people with mental illness.

**21.14 The State's vision on Mental health:**

The State's vision is to promote mental health and ensure socio economic inclusion of persons affected by mental illnesses in Tamil Nadu, continue to work in partnership with patients and their families to facilitate recovery and reintegration through the provision of affordable, accessible, comprehensive and community-based mental health services.

## **Focus on Vulnerable Groups**

**21.15 Continuity in Care for people with complex needs:** People discharged from tertiary care/inpatient settings, those with antecedents of homelessness and those running a chronic course with unremitting symptoms or absolute poverty require specific attention and consistent engagement to support their living in the community. The initiation of Early Intervention in Psychosis with active identification of untreated psychosis, addressing the needs of Homeless people with mental illness by providing Transit Care Center and Shelter models implemented by the NGO's selected by the State NGO Selection Committee will serve as restorative, safe spaces for homeless people with mental illness are some of the interventions being done.

**21.16 Resilience focused Interventions for Children in Difficult Circumstances:** Self

esteem and resilience have been demonstrated as important contributors to recovery among people with mental illness as well as reduce risks for developing mental illness. The existing District Mental Health Programme (DMHP) has life skills education in schools and colleges in its mandate. Translating this into a directed programme of intervention to serve objects of promotion and prevention would be one of the focus areas of the State.

**21.17 Suicide Prevention:** This is also an important focus for community mental health programmes in the State. Risks of suicide can be mitigated through a surveillance programme that targets high risk individuals and develops supportive, resiliency resources. In addition to 104 and the district level interventions, Block mental health teams would be trained to address these issues.

**21.18** The Government would continue with its recent pro-active 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 patient. The Government would make all efforts to address the needs of persons with mental health issues to access both preventive, curative and rehabilitative efforts so that they can re-integrate back with the society and lead normal lives.

## Chapter - 22

### COMMUNICABLE DISEASES

**22.1** Promotion of environmental sanitation, immunization and treatment of cases are the key strategies for the prevention and control of communicable diseases are used effectively. Despite the challenges posed by travel and other compounding factors such as environmental health and zoonoses in addition to the possibility of air, water and fomite borne transmissions of communicable diseases, Tamil Nadu has always been in the forefront in prevention, control and treatment of communicable and non-communicable diseases. In Tamil Nadu, the diseases are monitored on regular basis as part of Integrated Disease Surveillance Programme and State level Epidemic control committee and the Inter departmental Coordination Committee reviews this. Effective inter-sectoral coordination at the District and local bodies levels has been



pivotal to all the progress that has been achieved in the field of prevention and control of communicable diseases. In recent times mosquito borne diseases continue to pose challenges due to diversity of sources and need for constant behavioral change in eradication of such sources with community participation.

**22.2 Vaccine Preventable Diseases:** Tamil Nadu has always been an early adapter of all approved vaccination programmes aimed at diseases having vaccinations. Under the Universal Immunization programme, Vaccine Preventable Diseases (VPDs) namely diphtheria, pertussis, tetanus, poliomyelitis, tuberculosis, hepatitis B, Haemophilus influenzae B, polio, measles, rubella and Japanese encephalitis are covered and Rota virus vaccination is also being administered in our State.

## **Immunization Programme**

**22.3** 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. On 06.02.2017 administration of Measles-Rubella Vaccine was started in Tamil Nadu and was completed successfully. Administration of Rota virus vaccination has also been started in Tamil Nadu.

### **Pulse Polio Immunization (PPI)**

**22.4** 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 2018, two rounds of pulse polio immunization campaigns have been conducted on 28.01.2018 and 11.03.2018. 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 Oral Polio Vaccine (OPV), the State has introduced bivalent OPV. In addition, injectable polio vaccine is added in the immunization schedule. The State continues to monitor any case of Acute Flaccid Paralysis and continues to attach high importance to the Information, Education and Communication campaign to ensure that there is no slip up at community and health worker levels.

### **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 Tiruvallur to prevent Japanese Encephalitis. The State has been seeking extension of this programme to Kancheepuram and Tirunelveli districts and following the proposal with the Government of India.

### **Special Mission Indradhanush**

**22.6** The Ministry of Health and Family Welfare (MoHFW) Government of India, launched Special Intensified Mission Indradhanush this year in the country and in our State 1,477 identified villages the campaign to cover the left out children is being undertaken. The earlier Mission Indradhanush programme started 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 focussed on interventions to improve full immunization coverage for children in India from 65% in 2014 to more than 90% by 2020. In Tamil Nadu, Mission Indradhanush has been implemented in four phases as detailed below:

- In Tamil Nadu under the Phase I of the programme, 8 districts namely Coimbatore, Kancheepuram, Madurai, Tiruchirapalli, Tirunelveli, Tiruvallur, Vellore and Virudhunagar were identified and covered from December, 2014.
- Phase II of the 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, Thoothukudi, Villupuram and Virudhunagar.

- Subsequently, from April, 2016 to July, 2016 Phase III was taken up in Coimbatore districts only while hilly areas in 5 districts viz. Erode, Karur, Namakkal, Nilgiris, Tiruppur and slum areas of all Corporations, have been covered by the State. This was followed by covering the left out areas namely Ramanathapuram, Paramakudi, Theni and Krishnagiri and four rounds were completed.
- Further from September 2017 to December 2017 Phase IV was taken up in 4 Districts namely Vellore, Kancheepuram, Tirunelveli and Tiruvallur.

### **Introduction of Measles-Rubella Vaccine**

**22.7** Measles–Rubella (MR) vaccination was done from 6<sup>th</sup> February, 2017. In the campaign, over 1.7 crore targetted children between 9

months and 15 years were vaccinated irrespective of previous immunization status or history of measles/rubella disease. MR vaccine is a safe vaccine.

### **Introduction of Rota Virus vaccine**

**22.8** Diarrhoeal diseases are the leading cause for childhood mortality globally as well as in India. As per the National Technical Advisory Group on Immunization (NTAGI) recommendation, Tamil Nadu has been identified as one of the states for introducing Rota virus vaccine. Hon'ble Chief Minister launched the programme in Salem on 17.09.2017. Three doses are administered at the age of 6 weeks, 10 weeks and 14 weeks.

### **National Vector Borne Disease Control Programme and Epidemic Control Activities**

**22.9** The State is maintaining a constant vigil against vector borne diseases and water borne

diseases including diarrhoea and other public health scares such as Swine Flu, other forms of Influenza, Rabies, etc.

## **Dengue**

**22.10** Dengue Fever (DF), an outbreak prone viral disease is transmitted by *Aedes* mosquitoes, which breeds in fresh water. DF is characterized by fever, headache, muscle and joint pains, rash, nausea and vomiting. Some infection results in Dengue Haemorrhagic Fever (DHF) - a syndrome that in its severe form can threaten the patient's life primarily through increased vascular permeability and shock. DF and DHF are caused by the four dengue viruses DEN 1, 2, 3 and 4, which are closely related antigenically. Infection with one serotype provides lifelong immunity to that virus but not to the others. Though Tamil Nadu has been able to keep Dengue, 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. 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. Diagnostic facilities have been strengthened with over 125 functional ELISA centres in the Government and Medical management has also been strengthened by provision of Cell Counter in all needy places.

## **Chikungunya**

**22.11** Chikungunya is also a viral disease spread by Aedes mosquitoes. The prevention and control measures against Chikungunya are carried out in an integrated manner with the Dengue control measures.

## **Zika Virus**

**22.12** In Tamil Nadu, one infection was detected in Krishnagiri and subsequently no cases are reported. All travellers from the affected country are monitored. Airports and seaports are kept free of Aedes mosquitoes. 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. Its clinical

manifestation is often similar to dengue, also spread by the same vector.

## **Malaria**

**22.13** Malaria is reported in few urban and rural areas in Tamil Nadu viz., Chennai, Ramanathapuram, Thoothukudi, Dharmapuri, Krishnagiri, Thiruvannamalai and Kanyakumari Districts. The total number of positive cases recorded in the State for the last year was 5,449. 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**

**22.14** Japanese Encephalitis (JE) is a mosquito borne zoonotic viral disease. The children suffer the highest attack rate because of lack of cumulative immunity due to natural infections.

**22.15** The Government of India is implementing the National Programme for Prevention and Control of JE/AES. Tamil Nadu is one of the five States where this programme is being implemented. Japanese Encephalitis Control Units at Cuddalore, Villupuram and Perambalur. 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**

**22.16** Acute Encephalitis Syndrome (AES) Surveillance is being carried out in District Headquarters Hospitals, Medical College Hospitals and major private hospitals. 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 Hospital, Tiruchirapalli
- Government Villupuram Medical College Hospital, Villupuram
- Government Thanjavur Medical College Hospital, Thanjavur
- Government Madurai Medical College Hospital, Madurai
- Government Tirunelveli Medical College Hospital, Tirunelveli
- Government Coimbatore Medical College Hospital, Coimbatore

Currently, the disease in the State is under control but under close monitoring. After the reported incidence of Nipah virus infection at Kozhikode, Kerala during May 2018, Tamil Nadu Government has initiated necessary bio-security measures in all the districts especially border districts through the Public Health Department along with Animal Husbandry and Forest Departments.

### **Filaria**

**22.17** 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. 25,545 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. 8,023 patients have been benefitted by this scheme.

### **Multi-Dimensional approach to mosquito borne diseases control**

**22.18** The following precautionary measures have been taken to control fever which is transmitted by mosquitoes.

#### **Surveillance**

- Daily fever surveillance is carried out in around 2,800 hospitals both government and private hospitals.
- Entomological surveillance is carried out regularly to find out the vector density and initiate necessary control measures.

## **Medical team**

- Mobile Medical Teams attend the fever affected areas in addition to the routine activities.
- The fever cases are immediately treated and samples are taken from the suspected fever cases and lab diagnosis is done for dengue and other vector borne diseases.
- Special medical camps are conducted in fever outbreak areas.
- Rapid Response Teams are functioning at block level in all the districts. The team headed by the Medical Officer of the PHC visit the fever affected areas and investigate the cause and take control measures in war foot manner.
- The Indian System of Drugs like Nilavembu Kudineer and Papaya Leaf extract are



distributed in all Government Hospitals to treat the fever cases.

### **Lab diagnosis**

- Dengue ELISA diagnostic facility is increased from 31 centres to 125 centres.
- Sufficient diagnostic kits supplied by NIV, Pune are available in all the Sentinel Surveillance Hospitals and Apex Laboratory.

### **Monitoring and Supervision**

- Inter-departmental Co-ordination Committee meeting chaired by the Chief Secretary are conducted frequently to discuss upon the role of various departments in the control of vector borne diseases and its surveillance.
- State Level Officials are allotted certain districts and deputed as Nodal Officers to

monitor the situation of Dengue and other communicable diseases.

- They camp at the allotted districts and prepare an action plan involving the line departments for deployment of manpower to carry out the vector control activities.
- The District Collectors are briefed about the situation regularly for co-ordination in dengue control activities.
- The staffs of various cadres such as Senior Entomologists, Junior Entomologists, Medical Officers, Health Inspectors and Field Workers are diverted from various districts for monitoring & supervision and to carry out vector control activities in the fever affected districts.

**Alert in Border Districts:** As a preparatory measure before the monsoon vigil is stepped up in the districts bordering Kerala, Karnataka and

Andhra Pradesh. The following activities are normally undertaken by the bordering districts – Kanyakumari, Tirunelveli, Theni, Dindigul, Tiruppur, Coimbatore, Dharmapuri, Vellore and Tiruvallur.

- Meetings are held with neighbouring States like Kerala and Andhra Pradesh and Karnataka to discuss and share the information on fever surveillance both from govt. and private health facilities.
- Action plan are in place to carry out anti-larval activities in the villages in borders.
- Special medical camps are planned to be conducted periodically in the border areas.
- Entomological surveillance is also being carried out in the border villages.
- Routine fogging activities is also done in these areas.

## **Stock**

- Blood Platelets, Diagnostic equipments, drugs, whole blood etc., needed for dengue case managements are available in sufficient quantity in the state.
- Sufficient quantity of insecticides and larvicides are made available in all the districts.

## **Vector control activities**

- Daily around 16000 Domestic Breeding Checkers (DBC) are engaged for vector control activities.
- The local bodies also engage DBCs on temporary basis
  - Block – 20 DBCs per block
  - Town Panchayaths - 10 DBCs per Town Panchayath

- Municipality / Corporation – 1 DBC per 250 houses
- Source reduction activity and application of Temephos is intensely being done by the DBCs.
- Fogging operation is done in all the fever affected areas to stop transmission the dengue.
- Mass cleaning activity is carried out with the involvement of local bodies.

### **IEC and Awareness generation**

- Short films and IEC materials are prepared to create awareness among the public and also encourage the community participation in mosquito control activity and vector control measures taken by Government.
- In all districts, special training is given to the private practitioners by the expert

teams from Madras Medical College and Public Health Department on case management of fever and other related diseases.

- Government is taking measures to create awareness among the public on mosquito borne diseases and its control measures like avoiding stagnation of water in the houses, drinking boiled water, proper storage of water in closed containers etc. to avoid mosquito breeding.
- 24 hours Control Room is functioning in the Directorate of Public Health and Preventive Medicine to monitor the fever situation based on the news from all the channels. Public can get the necessary information from this control room by dialling to 044-24350496, 044-24334811 and Mobile No. 94443 40496 & 87544 48477.

- State level officials from Public Health Department, Municipal Administration, Rural Development and Panchayat Raj inspecting in various district monitor the daily fever situation and control measures.

### **Leptospirosis**

**22.19** A State Level Reference Laboratory is functioning at State Headquarters to provide laboratory confirmation and training.

### **A H1N1 Disease (Swine Flu)**

**22.20** Swine Flu is one of the types of Influenza fever. While the WHO has downgraded its pandemic alert and declared this as a seasonal Influenza, the State always has not reduced the alert. Apart from awareness and focus on hand washing, the Public Health department has stocked adequate stock of antiviral drug Oseltamivir and also annually procures at least two lakh doses of vaccines for the health

workers. Focus is on contact tracing and treatment and special focus on the high risk groups especially pregnant women, children and people with diabetes and chronic illnesses.

### **Epidemic Control Activities at the district level**

**22.21** The District Collector, being the Chairperson of the District Coordination Committee to control epidemic diseases, holds regular 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 occasional cases of outbreak have been localized and treated



completely to ensure that people's health is not put at risk.

**22.22** 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. 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)**

**22.23** 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 State / 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](http://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**

**22.24** The DPHL are the backbone of the laboratory network in Integrated Disease Surveillance programme (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.

## **International Health Regulations (2005)**

**22.25** The International Health Regulations (2005) (IHR) 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) is an international law which helps the countries to work together to save lives and livelihoods caused by the international

spread of diseases and other health risk and came into effect since 15<sup>th</sup> 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)**

**22.26** 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**

**22.27** 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

**22.28** Hygiene is most important component in the prevention and control of diseases spread through Air / Fomite, Water, Food, Vector and Zoonotic causes. Simple messages are spread through 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.

**22.29 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**

**22.30** 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, 9444340496 and 87544 48477. 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 Health Unit Districts(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**

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

## Chapter – 23

### **NON-COMMUNICABLE DISEASE PREVENTION, CONTROL AND TREATMENT**

**23.1** Non-Communicable Diseases (NCD) are on the rise and emerging as leading cause of Morbidity and Mortality in the community. NCDs pose a challenge in both urban and rural areas due to changing life style pattern which is associated with NCD related risk factors. NCDs cannot be addressed without focusing on the various risk factors associated with them which include Alcohol and Tobacco use, Sedentary life style, unhealthy food habits and stress.

**23.2** The Global Burden of Diseases (GBD) report 2016 has been an eye opener in terms of epidemiologic transition happening in the State. The report alerts that the Non-Communicable Diseases (NCD) constitute 69.2 per cent of the mortality from various diseases in Tamil Nadu

with Cardiovascular diseases alone constituting 36.1 per cent of the mortality. With regard to the Disability adjusted life Years (DALYs), 65.3 percent is due to NCDs of which major contribution is borne by Cardio Vascular Diseases. Hence, as per the GBD report, Tamil Nadu lost 4,788 healthy years to ischemic heart disease in the last 26 years against the national mean of 3,062.

**23.3** Hence, the State of Tamil Nadu took up the flagship Programme to address NCDs under the erstwhile Tamil Nadu Health Systems Project (TNHSP). The Non-Communicable Diseases Intervention Programme under TNHSP, the first of its kind to be implemented on a very large scale in India, was implemented in the State covering all 32 districts in a phased manner covering 2,602 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 attending any Government Health facility in the State. In case of Hypertension and Diabetes Mellitus, besides the regular drug treatment and follow-up, the focus is on counseling individuals on 'Life Style Modification'. With closure of the World Bank supported Tamil Nadu Health Systems Project (TNHSP) on 15 September, 2015, the Non-Communicable Diseases intervention programme is continued and sustained under National Health Mission (NHM) through the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS).



## **23.4 Performance under facility based or opportunistic screening for NCDs**

### **23.4.1 Cardio Vascular Diseases (CVD)**

**Prevention and Control Programme:** During the period between July, 2012 and March 2018, Hypertension screening was carried out for 5.20 crore individuals aged 30 years and above across all government health facilities. Out of those screened, 47,12,196 were found to be positive for Hypertension. Those identified with Hypertension are being treated as per protocol and monitored by follow-up for any complications due to hypertension. To augment the follow up services, activities have also been initiated to strengthen the Intensive Care Units (ICUs) in 29 District Headquarter Hospitals and two Medical College Hospitals under NPCDCS.

### **23.4.2 Prevention and Treatment of**

**Diabetes Mellitus:** Among 4.23 crore individuals aged 30 years and above screened

for Diabetes Mellitus during the period from July 2012 to March 2018, 18,36,722 patients have been detected with Diabetes Mellitus. The patients identified with Diabetes are put on treatment and followed up.

**23.5 Prevention and Treatment of Cervical Cancer:** Identification of pre-cancer or the early stage of Cervical cancer through screening is very important to provide the appropriate treatment at the earliest possible. During July, 2012 to March, 2018, Cervical cancer Screening test was performed for 1,71,51,895 women among whom 4,91,668 were detected positive in the screening test. The women found to be positive in the screening test get referred to secondary / tertiary care institutions for confirmation and further follow-up / treatment as per the protocol.

**23.6 Prevention and Treatment of Breast Cancer:** All women aged 30 years and above

attending out-patient wing in any Government facility also get screened by a screening test called Clinical Breast Examination (CBE). CBE positive women are those detected with any abnormality or lump in the breast. During the CBE, the women are also taught on Self Breast Examination (SBE). During July, 2012 to March, 2018, total of 2,10,56,238 women were screened with CBE. Among the women screened, 2,21,077 were detected with some abnormality or lump in the Breast. The CBE positive women get referred to higher institutions for further evaluation and follow-up as per the protocol.

**23.7 State Level and Regional Cancer Centres:** Adyar Cancer Institute in Chennai is functioning as State level higher treatment centre for Cancer and the institute has been upgraded as 'Centre of Excellence' at a cost of Rs.120 crore. Besides the Government Arignar Anna Memorial Cancer Institute, Kancheepuram

which is a Regional Cancer Centre, four more 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

**23.8 Day Care Chemotherapy:** Cancer patients find it most inconvenient to report to the same tertiary care institution for the maintenance chemotherapy which involves 4 – 6 cycles in certain interval. They also incur lot of Out of Pocket Expenditure (OOPE) and some of them also get lost to follow up. In order to reduce the waiting line in tertiary care centres for chemotherapy and to improve patient compliance in completion of treatment, Day care chemotherapy is being established in district headquarters hospital in all districts except in Tiruvannamalai, Karur and Pudukottai where it would be positioned in Medical College Hospitals. The treatment decision for the confirmed cancer patients will be decided in tumour board at tertiary care hospital and the first Chemo cycle

also would be given there. Then the follow up or maintenance chemotherapy which involves more cycles will be given at District Headquarters hospital. To ensure that the follow up or maintenance chemotherapy is delivered at the District Headquarter hospital, One Physician and two Staff Nurses in each district headquarter hospitals will be trained at State level.

### **23.9 Free Pathology Services**

**23.9.1** Non-Communicable Disease intervention programme is being implemented in all the districts in Tamil Nadu through all the health facilities on a 'facility based mode'. The screening covers three important cancers of public health importance namely Cervical, Breast and Oral Cancer.

**23.9.2** The biggest challenge in the programme is ensuring histopathological tests for those patients for whom biopsy is taken to confirm the

diagnosis. At present, the facility for histopathological examination is available only in the Medical College Hospitals which are already overburdened as they cater to the service needs of neighbouring districts without Medical colleges. There are 13 districts which do not have a Medical College Hospital and therefore lacks provision of Pathology laboratory services. The public who opt for tests in private Pathology laboratories incur heavy Out-of-pocket Expenditure (OOPE). In addition to it, there is inordinate delay in receiving the reports from the Government Medical colleges for those in the neighbouring districts of Medical College Hospital districts. Thus, the continuum of care gets affected besides the issues of accessibility and timely reporting.

**23.9.3** To counter this difficulty, Histo-Pathology laboratories will be established at the District Head Quarters Hospital level in those districts

without Medical colleges. When this gets established, the existing Pathology laboratories in the neighbouring or far away Medical College Hospitals will be relieved of their excess work load thereby improving the quality of their own routine work. The Institute of Pathology at Madras Medical College Chennai will act as the Apex institute for providing the necessary guidance for establishing the Pathology laboratories in the districts where free pathological services is proposed to be established.

**23.9.4** Under the 'Free Pathology Service' initiative, Histo-pathology laboratories will be established in District Head Quarter Hospitals of Cuddalore, Dindigul, Erode, Nagapattinam, Namakkal, Perambalur, Ramanathapuram, Tiruppur, Tiruvallur and Virudhunagar. These institutions will have histo-pathology equipments



worth 22 lakh and a Pathologist for delivering the services.

### **23.10 Population (or) Community based Screening**

**23.10.1** Non-Communicable Diseases control programme is being implemented under NPCDCS in a "*Facility Based Mode*" in all the health facilities in the 32 districts of Tamil Nadu covering Primary Health Centers, Taluk & District Hospitals and the Medical College Hospitals by opportunistic screening for Hypertension, Diabetes, Cervical and Breast cancer. All individuals aged 30 Years and above attending any government facility in the State are provided services under this program.

**23.10.2** Under NPCDCS, guidelines have also been issued to implement population or community based NCD screening and enumerate all the eligible population in the community

through house-to-house visits to bring the eligible population under screening. The ASHA / WHV/AWW will make house-to-house visits and carry out enumeration, creation of awareness on NCDs and risk factors, screen for Hypertension by using Digital Blood pressure apparatus and for Diabetes Mellitus by Glucometer testing. The individuals suspected with Hypertension / Diabetes get referred to the PHC for confirmation and further follow up. Women aged 30 years and above are motivated to attend the nearest PHC to get screened in addition for Cervical and Breast cancer. The field level functionaries also keep a record of the NCD patients already detected under the programme for ensuring their routine follow up for further investigations or treatment. They will also do group counseling and form patient support groups in the community for various NCDs in the community.

**23.10.3** Population based NCD screening is currently under way in three phase 1, pilot districts of Pudukottai, Perambalur and Krishnagiri through 433 WHVs (Women Health Volunteer) identified through Tamil Nadu Corporation for Development of Women (TNCDW), who will be known as CP-Health and 137 existing ASHAs. The state level training for the phase II districts (Karur & Ramanathapuram) and corporations (Tirunelveli & Coimbatore) is completed. Following the selection of field functionaries and the other preparatory activities including District Level training, enumeration & screening will be taken up in Phase-II districts and corporations. In Phase-II districts we will be engaging 595 WHVs and 37 ASHAs.

**23.11 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 155 machines in addition to 254 machines procured from Government sources to these tertiary care teaching hospitals and secondary care institutions. About, 26,658 patients have undergone dialysis during the year 2017-18. This is in addition to existing facilities in Government Medical College Hospitals and dialysis facilities availed in empanelled Government and Private Hospitals under CMCHIS.

## **23.12 National programme for Palliative Care (NPPC)**

**23.12.1** Palliative care primarily aims to relieve suffering and improve quality of life of adults and children affected by life-threatening and life-limiting illness. This includes their family members also. It is a holistic approach that aims to meet the needs of the whole person, not just to treat their clinical condition. These objectives will be realized in the state via National programme for Palliative Care (NPPC) addressing the physical, social, psychological and spiritual issues faced by people affected by life-threatening or life-limiting illness. Potential beneficiaries of the programme include cancer, Cardiac Failure, COPD, Chronic Kidney Disease, mentally retarded, old age, hemiplegic, paraplegic, congenital mental and physical disability, Alzheimer's, Parkinson's patients etc. For children, the major disease categories which

require palliative care are cancer, HIV and progressive non-malignant conditions, congenital anomalies etc. It is estimated that 7 % of the population of Tamil Nadu require palliative care.

**23.12.2** Currently in the first phase (2016-17), palliative care services have been established at District Headquarter Hospitals of Cuddalore, Dindigul, Thiruvallur, Krishnagiri, Ramanathapuram, Thoothukudi, Tiruppur and Namakkal and Medical College Hospitals of Thiruvavarur, Tiruvannamalai with the help of a trained palliative care doctor and staff nurses. More than 600 patients have already been benefitted from this service at these institutions in the last 6 months.

**23.12.3** Further, Community based Palliative Care Services are being planned to be available at every block level in these ten districts to provide home-care services. A trained staff nurse designated as 'Community Palliative Care

Nurse' will provide basic nursing services to those who are bed-ridden and approaching last days of their life at the patient's home. This service would reduce the physical difficulties of the severely debilitated patients while accessing a health facility. Various studies have shown that the OOPE of those patients subscribing to this service have reduced by 40 to 60% and thus alleviating the financial burden associated with health care. In the year 2017-18, palliative care services will be extended to Kancheepuram, Coimbatore, Villupuram, Vellore, Thanjavur, Erode, Thiruchirappalli, Salem, Tirunelveli and Kanniyakumari District Headquarter Hospitals. Thus, there will be a specialized palliative care unit in all these 20 district level health institutions which are currently under the process of renovation.

## **Chapter - 24**

### **OTHER NATIONAL PROGRAMMES**

#### **National Tobacco Control Programme**

**24.1** The National Tobacco Control Cell (NTCC) at the Ministry of Health and Family Welfare is responsible for overall policy formulation, planning, implementation, monitoring and evaluation of the different activities envisaged under the National Tobacco Control Programme (NTCP). The National Tobacco Control Programme is implemented in Tamil Nadu since 2003.

#### **Objectives of the National Tobacco Control Programme**

**24.2** The National Tobacco Control Programme (NTCP) has the following objectives:-



- i. To bring about greater awareness about the harmful effects of tobacco use and about the Tobacco Control Laws.
- ii. To facilitate effective implementation of the Tobacco Control Laws.

**24.3** The interventions under the National Tobacco Control Programme have been largely planned at the primordial and primary levels of prevention. The main thrust areas for the National Tobacco Control Programme are as follows:

- i. Training of health and social workers, NGOs, school teachers, enforcement officers and others.
- ii. Information, Education and Communication (IEC) activities.
- iii. School Programmes.
- iv. Monitoring tobacco control laws.

- v. Co-ordination with Panchayati Raj Institutions for village level activities.
- vi. Setting-up and strengthening of cessation facilities including provision of pharmacological treatment facilities at district level.

### **Guidelines of the Programme**

**24.4** In order to improve the quality of implementation of the National Tobacco Control Programme at the state and district levels, the National Tobacco Control Cell at the Ministry of Health and Family Welfare (MoHFW) has formulated the Operational Guidelines of the National Tobacco Control Programme. These guidelines are to be used as a reference document by the various agencies working at the state and district levels to further the goal of tobacco control. The World Health Organization (WHO) Framework Convention on Tobacco

Control (WHO FCTC) is the first global health treaty negotiated under the auspices of the WHO. Having ratified the WHO FCTC on 5<sup>th</sup> February 2004, India is a party to the Convention and has to implement all provisions of this international treaty.

**24.5** Operational guidelines for implementation of National Tobacco Control Programme have been developed and disseminated by Government of India to all the States and Districts under the programme.

**24.6** COTPA stands for the "Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003". The Act is applicable to all products containing tobacco in any form, as detailed in the Schedule to the Act. The Act extends to the whole of India including the State of Jammu and Kashmir.

- i. regulates the consumption, production, supply and distribution of the tobacco products by imposing restrictions on advertisement, promotion and sponsorship of tobacco products;
- ii. prohibits smoking in public places;
- iii. prohibits sale to and by minors; and
- iv. prohibits sale of tobacco products within a radius of 100 yards of educational institutions, and through mandatory depiction of specified pictorial health warnings on all tobacco product packs.

### **Status in Tamil Nadu**

**24.7** 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. Since 2015, three districts Madurai, Coimbatore and Tiruchirapalli have been added as new districts under National Tobacco Control Program. The total financial support received from Government of India from 2007 to 2017 for the State and five Districts (Villupuram, Kancheepuram, Madurai, Coimbatore and Tiruchirapalli) for implementation of National Tobacco Control Programme is Rs.2.06 crore.

**24.8** 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. 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. Training has been conducted on tobacco cessation methodologies for setting up of tobacco cessation clinic / centres in their Hospitals / Primary Health Centres. Mass Information, Education and Communication (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**

**24.9** Leprosy is a chronic infectious disease caused by *Mycobacterium leprae*. It usually affects the skin and peripheral nerves, but has a wide range of clinical manifestations. The disease is characterized by long incubation period generally five to seven years and is classified as pauci-bacillary or multi-bacillary, depending on the bacillary load. Leprosy was 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. Initially, leprosy patients were isolated and segregated. Communities were hostile to them and the patients were self conscious and afraid to mix with the community. Leprosoria to segregate the patients from the community were built in Europe in the middle ages. Several statutory acts and laws were also enacted during that time against them. A drug "Chaulmoogra" oil was used for leprosy treatment until "Dapsone" was discovered with anti leprosy effects during 1940s. It was in 1970s when Multi Drug Therapy (MDT) consisting of Rifampicin, Clofazimine and Dapsone were identified as cure for leprosy, which came into wide use from 1982 following the recommendations of WHO. Since then the services for leprosy patients gradually changed from institutional to outpatient care

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

**24.10** The National Leprosy Eradication Programme (NLEP) is a centrally sponsored Health Scheme of the Ministry of Health and Family Welfare, Government of India. The programme is headed by the Deputy Director of Health Services (Leprosy) under the administrative control of the Directorate General Health Services, Government of India. While the NLEP strategies and plans are formulated centrally, the programme is implemented by the States/ Union Territories. The programme is also supported as partners by the World Health Organization, The International Federation of Anti-leprosy Associations (ILEP) and few other Non-Govt. Organizations.



## **Background**

**24.11** Government of India started National Leprosy Control Programme in 1955 based on Dapsone domiciliary treatment through vertical units implementing survey, education and treatment activities. It was only in 1970s that a definite cure was identified in the form of Multi Drug Therapy. The MDT came into wide use from 1982, following the recommendation by the WHO Study Group, Geneva in October, 1981. Government of India established a high power committee under the Chairmanship of Dr.M.S.Swaminathan in 1981 for dealing with the problem of leprosy. Based on its recommendations the NLEP was launched in 1983 with the objective to arrest the disease activity in all the known cases of leprosy. However, coverage remained limited due to a range of organizational issues and fear of the disease and the associated stigma. At this stage

in view of substantial progress achieved with MDT, in 1991 the World Health Assembly resolved to eliminate leprosy at a global level by the year 2000. In order to strengthen the process of elimination in the country, the first World Bank supported project was introduced in 1993. Subsequently by 2005, the target of elimination of Leprosy was set at the National level and in 2012 a special action plan for high endemic districts was drawn up.

### **Status in Tamil Nadu**

**24.12** As done at all India level even in Tamil Nadu the National Leprosy Eradication Programme was launched during the year 1954-55 with the main objective 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 0.39 per 10,000 population as on March 2018. Intensive activities are carried out in 20 high endemic blocks and 34 Hard to reach areas during 2017–18. At present, over 7,315 Leprosy affected persons are receiving pension of Rs.1,500 per month other than those already availing the pension under the Old Aged Pension scheme. Upto March 2018, MCR special chappals were distributed to 9,262 patients and self care kits were distributed to 13,429 patients.

### **National Iodine Deficiency Disorders Control Programme (NIDDCP)**

**24.13** Iodine is required for the synthesis of the thyroid hormones, thyroxine (T4) and triiodothyronine (T3) and essential for the normal growth and development and well being of all humans. It is a micronutrient and normally required around 100-150 microgram for normal

growth and development. Deficiency of iodine may cause following disorders:

- Goitre
- Subnormal intelligence
- Neuromuscular weakness
- Endemic cretinism
- Still birth
- Hypothyroidism
- Defect in vision, hearing and speech
- Spasticity
- Intrauterine death
- Mental retardation

In 1992, the National Goiter Control Programme (NGCP) was renamed as National Iodine Deficiency Disorder Control Programme (NIDDCP).

## **Objectives**

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

- Survey to assess the magnitude of the Iodine Deficiency Disorders
- Supply of iodated salt in place of common salt
- Resurvey after every 5 years to assess the extent of Iodine Deficiency Disorders and the impact of iodated salt
- Laboratory monitoring of iodated salt and urinary iodine excretion
- Health education and Publicity.

**24.15** The State is focussing on the supply of iodised salt in place of common salt, and assessing 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. The provisions of the Food Safety and Standards Act, 2006 and Rules, 2011 are being effectively utilised to ensure compliance.

## **Chapter – 25**

### **GERIATRIC CARE**

**25.1.** Tamil Nadu is experiencing a demographic transition as a by-product of increasing life expectancy and declining fertility rate resulting in increasing population of elderly in the age group of 60 years and above. Population Census 2011 reveals that 10.4 % of the state's population is elderly against the national average of 8.6%. This proportion is expected to double by 2050. They suffer from various degenerative disorders that render them dependent and vulnerable. Further, the level of attention given to them in a healthcare facility is often poor or compromised when they get treated along with non-elderly group. To address these issues, exclusive geriatric care units are established at district level hospitals to provide 'elderly oriented' preventive, curative and rehabilitative services under National

programme for Health Care of Elderly (NPHCE). Further, the State intends to establish institutes of regional and national importance at Chennai for training, research and super-specialty services.

## **25.2 Institutions at various levels:**

**National Centre of Ageing:** The Establishment of National Institute of Ageing at an estimated cost of Rs.126.87 crore is under active progress, for which 8.64 acres of land has been allotted at the campus of King Institute of Preventive Medicine, Guindy, Chennai with a facility for providing 200 beds. Government of India have released Rs.69 crore towards construction of building.

**Department of Geriatric Medicine at Government General Hospital, Chennai, has been upgraded to Regional Geriatric Centre** which provides referral treatment, research and



manpower development. 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.

**At District level Hospitals:** A specialized 20 bedded ward and OPD for elderly is established in Medical College Hospitals of Coimbatore, Salem, Trichy, Madurai, Tirunelveli, Thanjavur, Villupuram and Vellore during the year 2015-17. In the current year, the services are being extended to the remaining 23 districts. One Consultant Medicine, six Staff Nurses and a Physiotherapist trained in Geriatric Care will soon be made available in each of the Medical Colleges of Coimbatore, Salem, Trichy, Madurai and Tirunelveli. The number of elderly Patients

provided services during the year 2017-18 are presented in the table below:

|  |        |
|--|--------|
| Number of Elderly persons attended geriatric OPD           | 51,016 |
| Number of Cases admitted in geriatric wards                | 3,236  |
| Number of geriatric patients given rehabilitation services | 6,658  |
| Number of Lab. tests performed for the elderly             | 28,918 |

**Activities at CHC level** will be initiated during the financial year 2018-19. Geriatric OPDs will be conducted twice a week.

## Chapter - 26

### **TAMIL NADU ACCIDENT AND EMERGENCY CARE INITIATIVE (TAEI), ACCIDENT AND TRAUMA CARE CENTRES and '108' EMERGENCY CARE SERVICES**

#### **26.1 The Burden of Road Traffic Accidents**

**in Tamil Nadu:** Tamil Nadu is the seventh most populous and highly urbanized state in the country with 14,257 km of National and State highways. During 2016, Tamil Nadu accounted for 17,311 which is 12% higher as compared to 2015. Tamil Nadu constitutes to a share of 15.9% injuries and 10.7% deaths in India.

**26.2 Golden Hour:** The first hour after the trauma is called the "golden hour". If proper first aid is given, road accident victims have a greater chance of survival and a reduction in the severity of their injuries. The Golden Hour emphasizes the urgency of care required by

major trauma patients to prevent 'early deaths'. Acknowledging "*the first hour after injury will largely determine a critically-injured person's chances for survival*", the Government of Tamil Nadu under the Tamil Nadu Accident and Emergency care Initiative focuses on the Golden Hour Concept, ensuring that the time period between injury and definitive treatment is minimized. Several interventions are implemented in the Pre hospital and In hospital component within the golden hour to increase the chances of survival.

**26.3 Pre hospital Care - 108- Emergency Ambulance Services:** "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 for providing pre hospital care at the scene of the accident and en-route to the appropriate hospital. There are 926 ambulances

in the 108 fleet including Advanced Life support Ambulances and each ambulance has one fully trained Emergency Medical Technician (EMT) who provides the pre-hospital care to victim and a Pilot who is trained in providing first aid. The ERCP provides online medical direction based upon the accident victims general conditions, signs and symptoms and vitals. Emergency life saving drugs are administered by the EMT based on the Medical advice of the Call centre physician. By providing prompt pre hospital care 4,68,485 lives have been saved since 2008. These are described in detail separately in the later paragraphs of this chapter.

**26.4 Reduction in Response Time:** The following specific interventions were made to reduce the response time of the ambulances which have a direct bearing on the patient's survival.

- Fitting of GPS devices in ambulances
- Introduction of User to locate the latitude and longitude of the caller. Using DTMF Coder in Collaboration with IIT the User App can work in android phone without Internet Connection
- Introduction of 108 Pilot Navigation App
- Accident grid analysis
- Spatial mapping of medical facilities to ensure appropriate referral within the golden hour

The Response time has been brought down from 16 minutes to 14 minutes in the last one year.

**26.5 Emergency Care Centre:** The key determinant for survival and death is the availability of good pre hospital care and emergency care soon after the injury. The ECC

stabilizes the victims thereby providing a longer window for survival and reduces complications of the victims. It helps to mitigate the challenge of transporting a critically injured trauma patient over long distance, and thereby provides the stabilization within the golden hour. The Emergency Stabilization center is 3 to 6 bedded unit, co-located with a PHC/GH and functions 24x7 with trained medical and paramedical staff and is equipped with advance life saving equipments like ventilator, defibrillator with multi para monitor, essential life saving medicines. Tamil Nadu is implementing the Emergency Care Centers at GH, Tambaram, PHC, Padiyanallur and GH, Injambakkam which are high RTA prone stretches. As there is a felt need to expand the concept of emergency care to other needy places across Tamil Nadu 10 Locations have been identified to establish new ECC.

**26.6 Functions of ECC:** Stabilization will be done within 20 to 45 minutes and will be referred to higher institute for further management.

- Triaging and Reassuring patients
- RSI (Rapid Sequence Intubation)
- Cardiac Resuscitation
- Fluid Resuscitation
- Pain Management
- Bleeding Control, wound care

Since 2013, 23,949 lives have been saved in the ECCs.

**26.7 In Hospital Care a Trimodal distribution of death is observed:**

- First peak is instant death due to injury to brain, heart or large vessel injury.



- Second peak occurs from minutes to hours after the trauma. In this, the second peak can be reduced to a great extent if proper stabilisation and emergency care is provided within the golden hour.
- Third peak occurs days to weeks after the trauma due to sepsis, multiple organ failure etc.

**26.8 Pre Arrival Intimation (PAI):** Pre – hospital notification is the communication by Ambulance personnel to a receiving hospital of the impending arrival of a RTA requiring emergency care. This provides the opportunity for the receiving hospital to improve preparedness for reception and resuscitation of a critically injured patient. Pre-hospital notification alone has been found to be independently associated with reduced mortality in Trauma centers. A protocol has been devised to provide PAI.

**26.9 Concept of Emergency Room:** The concept of emergency room is devised to provide immediate emergency care to a RTA victim, in particular within the golden hour without waiting for an Accident Register entry. 72 hospitals have been identified for standardization of Emergency Room. A system of Triage is done based on the criticality of the victim and colour is assigned, (RED/YELLOW/GREEN). The patients in the Emergency Room are subjected to a Primary Survey which involves checking, maintenance and management of -

- Airway maintenance with cervical spine control
- Breathing and ventilation
- Circulation, Hemorrhage control
- Disability; Neurological Status, Consciousness, Focal deficit
- Exposure; To check for poisons, Trauma

After stabilization, the victims are shifted to the ICU/ Emergency OT for surgical intervention/ Ward / transfer to higher centre for appropriate care (IFT). Training of doctors and nurses is conducted under TAEI emphasizing the ABCDE Concept of Early Management of Trauma Reception and Resuscitation as per protocol.

**26.10** To summarize the Tamil Nadu Accident and Emergency Care Initiative (TAEI) has brought Trauma Care under one umbrella wherein the Mission Director, State Health Society, NHM is designated as the Commissioner of Trauma Care. Under this initiative 72 hospitals have been identified and a network has been created in a HUB and spoke model by introducing the concept of Emergency care within the golden hour for RTA victims. Wherever necessary, in high RTA stretches, ECCs have been established to stabilize the RTA victims within the golden hour brought through

108 ambulances or other vehicles. The entire process is protocol driven and proper training is being provided to the medical personnel. All the above measures will help the State to achieve the SDG Goal of reduction in RTA Deaths to half by the year 2020.

### **Other Ongoing Initiatives**

**26.11** The State Government has taken number of initiatives to reduce the accidents and save invaluable human lives by strengthening the 108 Emergency Ambulance Service and establishing Accident and Trauma Care Centres.

**26.12** 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.

**26.13** Additionally, Trauma Care Centres have also been established in the Government District Headquarters Hospitals at Karur, Krishnagiri, Kovilpatti and Dindigul. Government has also taken strenuous efforts to get Government of India grants for establishing state of the art Level I Trauma Care Centre at Chengalpattu Medical College Hospital, Chengalpattu with a bed strength of 30 including 10 ICU beds, Level

II Trauma Care Centre at Coimbatore Medical College Hospital, Coimbatore with a bed strength of 20 including 10 ICU beds and Level III Trauma Care Centres at Government Headquarters Hospital, Kallakurichi and Kumbakonam with a bed strength of 10 including 5 ICU beds. In secondary care institutions Trauma Care Centres are functioning in 15 Government District Headquarters Hospitals and Sub-District Hospitals at Dindigul, Perambalur, Cuddalore, Namakkal, Padmanabapuram, Tenkasi, Wallajah, Melur, Omalur, Krishnagiri, Tambaram, Kovilpatti, Palani, Tiruvallur, Kancheepuram. Additionally, during the year 2017-18 three Level-II Trauma Care Centres at Perambalur, Tiruppur and Ramanathapuram and Level-III centres at Cheyyar, Ulundurpet, Rajapalayam, Tiruttani, Attur and Karaikudi have been sanctioned by Government of India and the same is under implementation.

**26.14** The Government Medical College Hospitals are 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**

**26.15** “108” Ambulance Service is being operated **24x7** in Tamil Nadu free of charge as a Public Private partnership with GVK EMRI through a single **Toll Free number**. Each ambulance has one fully trained Emergency Medical Technician (EMT) who provides the pre-hospital care to victim and a Pilot (driver).

**26.16 Ambulance Deployment:** At present, 926 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. During this year, 80 old Ambulances were replaced with new vehicles.



## District Wise Distribution of Ambulances

| Districts      | AMBULANCES |     |           |      |       | FR Bikes |
|----------------|------------|-----|-----------|------|-------|----------|
|                | ALS        | BLS | Neo Natal | 4 WD | Total |          |
| Ariyalur       | 1          | 16  | 1         | 0    | 18    | -        |
| Chennai        | 2          | 34  | 3         | 1    | 40    | 13       |
| Coimbatore     | 2          | 30  | 2         | 3    | 37    | 3        |
| Cuddalore      | 2          | 31  | 2         | 0    | 35    | 1        |
| Dharmapuri     | 1          | 17  | 3         | 4    | 25    | -        |
| Dindigul       | 2          | 21  | 2         | 5    | 30    | 1        |
| Erode          | 1          | 23  | 2         | 6    | 32    | 1        |
| Kancheepuram   | 2          | 56  | 2         | 0    | 60    | 3        |
| Kanyakumari    | 1          | 9   | 1         | 1    | 12    | -        |
| Karur          | 2          | 13  | 1         | 0    | 16    | -        |
| Krishnagiri    | 1          | 16  | 2         | 7    | 26    | 1        |
| Madurai        | 3          | 22  | 3         | 0    | 28    | 2        |
| Nagapattinam   | 2          | 19  | 2         | 1    | 24    | -        |
| Namakkal       | 1          | 18  | 2         | 3    | 24    | -        |
| Perambalur     | 1          | 10  | 1         | 0    | 12    | -        |
| Pudukottai     | 2          | 20  | 2         | 0    | 24    | 1        |
| Ramanathapuram | 2          | 17  | 2         | 1    | 22    | -        |
| Salem          | 4          | 27  | 2         | 7    | 40    | 2        |

|                    |           |            |           |           |            |           |
|--------------------|-----------|------------|-----------|-----------|------------|-----------|
| Sivagangai         | 2         | 14         | 2         | 0         | 18         | 1         |
| Thanjavur          | 1         | 21         | 1         | 0         | 23         | 2         |
| The Nilgiris       | 2         | 7          | 1         | 20        | 30         | -         |
| Theni              | 1         | 12         | 2         | 3         | 18         | 1         |
| Thiruvallur        | 1         | 42         | 2         | 0         | 45         | 1         |
| Thiruvanamalai     | 2         | 28         | 3         | 4         | 37         | 1         |
| Thiruvarur         | 1         | 14         | 1         | 0         | 16         | -         |
| Thoothukudi        | 2         | 15         | 2         | 0         | 19         | -         |
| Tiruchirapalli     | 2         | 24         | 2         | 2         | 30         | 2         |
| Tirunelveli        | 3         | 27         | 2         | 0         | 32         | 1         |
| Tirupur            | 2         | 20         | 2         | 0         | 24         | 1         |
| Vellore            | 1         | 45         | 3         | 5         | 54         | 1         |
| Villupuram         | 3         | 46         | 4         | 3         | 56         | 2         |
| Virudhunagar       | 2         | 15         | 2         | 0         | 19         | -         |
| <b>Grand Total</b> | <b>57</b> | <b>729</b> | <b>64</b> | <b>76</b> | <b>926</b> | <b>41</b> |

### **26.17 Key Performance Highlight for the year 2017-2018**

- This service is designed to serve 7.21 crore population of the State,
- On an average, per day, per trip, per Ambulance performance is 3.9 cases.

### **26.18 Categories of Medical Emergencies:**

The category wise emergencies handled may be seen from the Table given below:

| <b>Type of Emergencies</b> | <b>Percentage</b> |
|----------------------------|-------------------|
| Road traffic Accident      | 17.75             |
| Pregnancy Related          | 25.08             |
| Acute abdominal pain       | 8.63              |
| Cardiac Related            | 5.73              |
| Poisoning                  | 4.24              |
| Respiratory                | 4.53              |
| Injured in assault         | 3.39              |
| Epilepsy                   | 2.81              |
| Neonatal                   | 1.58              |
| Suicides                   | 0.43              |
| Others                     | 25.83             |
| <b>Total</b>               | <b>100</b>        |

**26.19 Highlights:** 69,563 lives in very critical condition, were saved and of cases attended 2.7% of cases were given first aid and 97.3% admitted in the hospital. Of the admitted cases

94.5% were admitted to the Government Hospitals and balance 2.8% of cases were admitted in Private Hospitals on request from victim / attenders.

- Further 64,457 Medical emergencies attended in tribal areas and 20,343 Neonatal cases handled last year.

## **26.20 Beneficiaries details and other details under this Service**

| Parameters                        | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 |
|-----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total Beneficiaries               | 510542  | 500356  | 634364  | 790793  | 885452  | 957991  | 1050998 | 1287445 |
| Pregnant Mothers                  | 128476  | 139068  | 160160  | 207492  | 233109  | 232408  | 240827  | 322868  |
| RTA                               | 124907  | 130226  | 147290  | 174248  | 180578  | 191988  | 219310  | 228549  |
| Other Emergency                   | 257159  | 231062  | 326914  | 409053  | 471765  | 533595  | 590861  | 736028  |
| Tribal related                    | 6734    | 13411   | 15541   | 16879   | 26910   | 31935   | 45103   | 64457   |
| Total neo natal cases transported | 0       | 11780   | 16964   | 21670   | 20376   | 21788   | 20584   | 20343   |
| Critical lives saved              | 14308   | 18308   | 15919   | 65945   | 46742   | 38608   | 74910   | 69563   |

**26.21 Global Positioning System (GPS):** As already mentioned in the earlier paragraphs of this chapter, all the ambulances are fitted with GPS device and integrated with the 108 Emergency Response Centre. Presently, when someone in distress calls 108 Emergency Response Centre, details about the caller's District, Taluk, and Village and nearby landmark are collected verbally by the Emergency Response officer and the ambulance is dispatched. On an average 13,800 calls are being received by the 108 Emergency Response Centre daily. When the caller is new to the geography or in a panic state of mind, he will find it a challenge to provide details of the place of calling (District, Taluk etc.). Under these circumstance, the new mobile application for Android Mobile phone will enable the 108 Emergency Response Centre Officer to view in the computer, caller's geographic location precisely, locate the ambulance through GPS

and dispatch the nearest ambulance to the caller swiftly. This has led to further reduction in Response Time. Presently the average Response time for urban area is 13 minutes, rural area is at 17 minutes and Road Traffic accident is less than 13 minutes. This new mobile application has been designed to work even without internet Connection (Data / GPRS). This application uses DTMF technology to determine the callers' location without internet connection. It is the first of its kind mobile application for 108 Emergency Response Services in the Country. This special feature is an initiative by the Government of Tamil Nadu to enable even the rural and tribal population with feeble mobile network coverage to have access to its 108 Emergency Response Service. To begin with, five Emergency Response Officers would have DTMF enabled system to receive calls from this mobile App without internet connection. This

would be extended to all other systems gradually.

## **26.22 Mobile Application for the use of 108**

**Ambulance Pilots (Drivers):** In order to enable the 108 ambulance Pilots (Driver) to reach the caller swiftly through the shortest route, a special Android Mobile Application has been designed. Details of the distress caller will be shared by the 108 Emergency Response Centre to the Pilot through this mobile Application. For this purpose, all the 108 ambulances would be provided with Android mobile phones. Upon receiving the information of the Caller's location, the 108 ambulance pilot can start navigating with the map shown in the mobile app. This will enable the Pilot to reach the caller with reduced response time through shortest route. This will be a great tool locating the caller in difficult geographical terrain, during nights, when the pilot is new to the geography,

and when the caller is not able to clearly communicate his or her location. All ambulance pilots have been provided with an Android phone

**26.23 Neonatal Ambulances:** 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 Unit (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 20,343 babies have been benefited in this specialty service in this year. Currently 64 ambulances are in operation in all the districts for this service. In addition, 32 ventilators have been provided in the year 2017-18.



**26.24 Four Wheel Drive:** 76 Four Wheel Drive ambulances are in operation in 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.

**26.25 Bike Ambulances:** 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, 2018) 20,784 numbers of cases are transported through this service since launch.

**26.26 Source of Funding and Expenditure:** The 108 Ambulance Service is funded by the State Government. However, NHM provides

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 2017-18 is about Rs.149.85 crore.

**26.27 Monitoring:** The State level Advisory Committee headed by the Chief Secretary to Government, review the State level performance reviews the performance once in 6 months. The District Monitoring Committee headed by the District Collector reviews the performance of the 108 ambulance service and at the district level. Apart from this, the programme officers and field level functionaries inspect the ambulances and provide suggestions for improvements.

### **Emergency Critical Care Centre (ECC)**

**26.28 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 Government Hospital, Injambakkam on East Coast Road in Kancheepuram District in November, 2017. 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 equipment 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, 14,372 cases in Tambaram centre, 8,582 cases in Padiyanallur centre and around 995 cases in Injambakkam centre have been stabilized. Also under road safety activity it

has been approved to establish similar ECC in 10 Government Hospitals situated in the National Highways. Also, 5 Mobile Trauma care Units has been approved for initiation. Action is in progress for the setting up of the above centers under road safety. A separate mobile application has been launched for the use of public to identify the exact location of the accident scene.

### **26.29 Ambulances operated by Government**

**Hospitals:** Besides the 108 Ambulance service, the Government Hospitals 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 Centers of Excellence. The number of ambulances available under each HOD is as follows.

| <b>S. No.</b> | <b>Head of the Department</b>                        | <b>No. of Ambulances</b> |
|---------------|--|--------------------------|
| 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                        |
|               | <b>TOTAL</b>   | <b>489</b>               |

**26.30 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 which is arranged by contacting the Central Response Centre, through the telephone number 155377, which is functioning round the clock for the assistance. Currently 160 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. During 2017-18, 1,02,942 bodies have been transported to their destination at free of cost. The cases that require beyond 300 kms transportation is transported through Railways. Governments have sanctioned funds of Rs.13.00 crore for this service in 2017-2018. The number of vehicles in 2011 was 55 and now it is 160. It is planned to increase the fleets strength to 180 in future.

## **Chapter - 27**

### **CHIEF MINISTER'S COMPREHENSIVE HEALTH INSURANCE SCHEME**

**27.1** This is one of the flagship schemes of the Government of Tamil Nadu with the objective of ensuring universal health coverage and providing State of art treatment facilities in the Government and Private sector to the needy. In order to achieve universal health coverage, Chief Minister's Comprehensive Health Insurance Scheme (CMCHIS) was inaugurated by the Honourable former Chief Minister with effect from 11.01.2012. The scheme covers members of any family whose annual family income is less than Rs.72,000. So far, 1.58 crore families are covered under the scheme and Smart Cards have been issued to the members. After successful implementation for five years the insurance scheme is continued from 11.01.2017 as announced in the Budget 2016-17 through

the United India Insurance Company Limited, which is a public sector company.

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

- i. Sum insured – The coverage is Rs.1 lakh per year per family with a provision of Rs.2 lakh for certain 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 1027 medical & surgical treatment procedures, 154 specialized procedures, 154 follow up procedures, 38 standalone diagnostic procedures and 8 High end procedures. 158 treatment procedures have been reserved for Government Hospitals.



- iii. Migrant labourers who resided for more than six months in the state as certified by suitable authority are included after the payment of premium for migrants employees by the Labour department.
- iv. Orphans as defined by the State Government are covered under the scheme and given single card.
- v. Existing health insurance card shall be continued. Also provision to download and print electronic cards by accessing CMCHIS website on uploading the details has been done.
- vi. The process of linking beneficiary Aadhar with CMCHIS, data is being carried out by TNeGA.
- vii. The Quality assurance standard of Government of India / NABH entry-level accreditation of hospitals is going to be

insisted for all the hospitals including the Government hospitals.

- viii. Accessibility to view Minimal Electronic Health Record by the beneficiary from the website has been provided.
- 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.
- x. Totally, 881 hospitals (224 Government Hospitals and 657 Private Hospitals) are empanelled under the scheme to provide treatment to the public. 84 treatment procedures have been exclusively allotted for government hospital.

**27.3 Grievance Redressal:** 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. In this scheme also, the beneficiaries can get treatment free of cost for approved procedures in the empanelled hospitals by producing smart card. 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** In the scheme from 11.01.2012 to 10.01.2017 (5 years), 17.30 lakh beneficiaries are benefitted for insurance coverage of Rs.3398.66 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. In addition to this, 3.94 lakh persons were benefited under diagnostic facilities with insurance coverage of Rs.77.84 crore.

**27.5** During the first year of implementation of the scheme, 2.21 lakh persons were benefitted to a tune of Rs.479.32 crore, in second year 3.41 lakh persons with Rs.679.97 crore, in third year 3.52 lakh persons with Rs.684.41 crore, in fourth year 3.98 lakh persons with Rs.768.22 crore and in fifth year 4.16 lakh persons were benefitted with Rs.786.73 crore. Under the present policy (11.01.2017 to 31.03.2018) 5,43,540 persons have been benefited under the scheme for Insurance coverage for Rs.977.70 crore. Out of this, 2,32,579 beneficiaries have been benefited in Government Hospitals for

Insurance coverage for Rs.338.24 crore. So far, 1,95,804 beneficiaries undergone diagnostic tests for approved amount of Rs.44.36 crore.

**27.6** Totally, in this scheme, fund as per the following details was generated for the empanelled Government hospitals:

| <b>S. No.</b> | <b>Year</b>              | <b>Amount<br/>Rs. in Lakh</b> |
|---------------|--------------------------|-------------------------------|
| 1             | 11.01.2012 to 10.01.2013 | 14,885.51                     |
| 2             | 11.01.2013 to 10.01.2014 | 24,546.29                     |
| 3             | 11.01.2014 to 10.01.2015 | 24,483.15                     |
| 4             | 11.01.2015 to 10.01.2016 | 27,131.06                     |
| 5             | 11.01.2016 to 10.01.2017 | 25,261.17                     |
| 6             | 11.01.2017 to 10.01.2018 | 30,193.69                     |
| 7             | 11.01.2018 to 31.03.2018 | 3,630.55                      |
| <b>Total</b>  |                          | <b>1,50,131.42</b>            |

**27.7** Speciality wise authorization issued for surgery are given in the table below:

**Speciality wise Authorization Issued.  
(11.01.2012 to 31.3.2018)**

| <b>S. No</b> | <b>Specialty</b>               | <b>No. of cases Approved</b> | <b>Approved Amount (Rs. in Lakh)</b> |
|--------------|--------------------------------|------------------------------|--------------------------------------|
| 1            | Nephrology                     | 4,37,527                     | 36,820.27                            |
| 2            | Medical Oncology               | 3,29,620                     | 18,464.74                            |
| 3            | ENT                            | 1,41,712                     | 18,259.97                            |
| 4            | Genitourinary Surgery          | 1,35,911                     | 30,669.56                            |
| 5            | General Surgery                | 1,26,264                     | 27,102.63                            |
| 6            | Cardiothoracic Surgeries       | 1,20,713                     | 98,357.11                            |
| 7            | Neonatology                    | 1,07,064                     | 17,381.53                            |
| 8            | Orthopedic Trauma              | 1,07,080                     | 25,034.34                            |
| 9            | Gynaecology& Obstetric Surgery | 91,091                       | 17,100.21                            |
| 10           | Ophthalmology Surgeries        | 93,858                       | 11,708.87                            |
| 11           | Radiation Oncology             | 93,302                       | 21,259.79                            |
| 12           | Hepatology                     | 63,886                       | 5,055.17                             |
| 13           | General Medicine               | 62,918                       | 11,621.32                            |
| 14           | Cardiology                     | 57,052                       | 15,728.91                            |
| 15           | Neurosurgery                   | 53,854                       | 21,060.97                            |
| 16           | Neurology                      | 47,608                       | 8,812.44                             |
| 17           | Surgical Oncology              | 41,815                       | 10,809.72                            |
| 18           | Plastic Surgery                | 41,266                       | 9,500.64                             |

|    |  |                  |                    |
|----|--|------------------|--------------------|
| 19 | Replacement                            | 38,715           | 26,263.53          |
| 20 | Paediatric Intensive Care              | 39,577           | 5,102.95           |
| 21 | Vascular Surgeries                     | 28,098           | 7,629.91           |
| 22 | Gastroenterology                       | 11,428           | 2,130.48           |
| 23 | Pulmonology                            | 11,732           | 2,139.82           |
| 24 | Surgical Gastro Enterology             | 11,562           | 4,458.14           |
| 25 | Interventional Cardiology              | 14,915           | 10,230.69          |
| 26 | Follow Up Procedures                   | 10,649           | 184.58             |
| 27 | Paediatric Surgeries                   | 11,015           | 3,112.88           |
| 28 | Paediatrics                            | 7,663            | 845.45             |
| 29 | Interventional Radiology               | 7,144            | 3,440.93           |
| 30 | Poly Trauma                            | 5,544            | 1,052.25           |
| 31 | Rheumatology                           | 5,075            | 495.77             |
| 32 | Spine                                  | 5,513            | 1,965.08           |
| 33 | Hematology                             | 3,372            | 536.28             |
| 34 | Dermatology                            | 2,806            | 371.16             |
| 35 | Endocrinology                          | 1,317            | 250.25             |
| 36 | OFMS                                   | 1,258            | 150.31             |
| 37 | Transplantation                        | 448              | 643.89             |
| 38 | Chest Surgery                          | 246              | 95.65              |
| 39 | Endocrine Surgery                      | 144              | 31.64              |
| 40 | Thoracic Medicine                      | 144              | 16.36              |
| 41 | Psychiatry                             | 139              | 9.51               |
| 42 | PMR                                    | 15               | 15.00              |
| 43 | Infectious Diseases - General Medicine | 2                | 0.19               |
| 44 | Diagnostics                            | 5,90,276         | 12,223.49          |
|    | <b>Grand Total</b>                     | <b>29,61,338</b> | <b>4,88,144.38</b> |

**27.8** 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.1.5 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.1.5 lakh per annum is met from this Corpus Fund. Now in the new policy, the cost of specialized surgery will be borne by the insurance Company upto Rs.2.00 lakh and the remaining amount are met from the Corpus Fund. All such cases are cleared by an Expert Committee. Totally 6119 beneficiaries have been approved for these high end surgeries as per the following details:



| <b>Sl. No</b> | <b>Nature of Surgical procedure</b>       | <b>Number of beneficiaries authorized</b> |
|---------------|---|---|
| 1             | Cochlear Implantation                     | 3,209                                     |
| 2             | Renal Transplantation                     | 1,999                                     |
| 3             | Liver Transplantation                     | 325                                       |
| 4             | Bone Marrow and Stem Cell Transplantation | 536                                       |
| 5             | Heart transplantation                     | 30  |
| 6             | Heart and Lung transplantation            | 7   |
| 7             | Lungs transplantation                     | 2   |
| 8             | Auditory Brain Stem Implantation          | 11  |
| <b>Total</b>  |   | <b>6,119</b>                              |

**27.9 Special Medical Camps:** From January, 2012 to 10.4.2018, 36,268 individual and 1,075 mega camps were conducted and about 58,03,120 persons were screened by both Government and Private empanelled hospitals.

**27.10 Awards and Improvements:** It is the pride and privilege of CMCHIS that it has been awarded Best Practices award with certificate and cash award of Rs.2 lakh for 2014 for the improvement of quality delivery system ensuring

good governance for implementation by the Hon'ble Chief Minister, Tamil Nadu. Apart from this, certain cost control measures were effected like cost of drug eluting stent from Rs.80,000 reducing to Rs.18,500 for CMCHIS patients through negotiation with all major suppliers. From July, 2017 the rate of Cochlear implant has been reduced from Rs.5.35 lakh to Rs.3.84 lakh with same quality implant through negotiation and bulk procurement.

**27.11 Integration of the National Health Protection Scheme with the ongoing CMCHIS:** The State Government has proposed for integration of the new National Health Protection Scheme (PMRSSM) announced by the Government of India with Chief Minister's Comprehensive Health Insurance Scheme. The Government is awaiting the details and in due course, work towards integration of the scheme will start to the benefit of the people of Tamil Nadu. It is expected that about 77 lakh families would be eligible under the National scheme.

## **Chapter - 28**

### **CERTAIN IMPORTANT ACTS**

#### **Tamil Nadu Public Health Act, 1939**

**28.1** Tamil Nadu was the first State in the country to enact a law for public health. Tamil Nadu Public Health Act, 1939 has since been amended in 1941, 1944 and 1958 and the act was modified in 1970. The main focus of the Public Health Act, 1939 is on environmental health, communicable disease control, food hygiene and maternity and child health measures. 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**

**28.2** 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. 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. There are 16,468 registration units in 32 revenue districts of the State including Chennai Urban District.

## **Medical Certification of Cause of Death**

**28.3** The Medical Certification of Cause of Death (MCCD) procedure is a part of Civil Registration System and 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.

## **TRANSPLANTATION OF HUMAN ORGAN ACT, 1994**

**28.4** To curtail the menace of human organs trade and to regulate the removal, storage and transplantation of human organ for the therapeutic purpose, the Transplantation of Human Organ Act 1994 was enacted by the Government of India. Following the provision of this Act, in Tamil Nadu, transplantation of human organs is being done only in the hospitals

registered for this purpose under this Act. According to the provisions of this Act, the Director of Medical and Rural Health Services is State Appropriate Authority. He issues the registration certificate under this act to the applying hospital based on the inspection report furnished by the team of specialists appointed for this purpose. The hospitals which are registered under this Act alone can conduct Human Organ Transplantation. In Tamil Nadu 130 hospitals are registered under this Act for performing renal, heart, liver, lungs and Heart Valves transplantations.

## **DECEASED ORGAN TRANSPLANT PROGRAMME**

**28.5** With an organ donation rate of 2.1 per million population, Tamil Nadu continues to be the leader in organ donation in the country. Tamil Nadu was one of the first States to start the programme way back in 1995 after a

resolution was passed in the Tamil Nadu State Assembly to adopt the Central Act. It has had an organ sharing network since 2000. The present 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 Tamil Nadu Medical Services Corporation (TNMSC) and Tamil Nadu State AIDS Control Society (TANSACS). Tamil Nadu ranks number one in the implementation of the Deceased Organ Transplant Programme. The State has bagged



awards consecutively for three years from 2015 to 2017.

**28.6** The details of Donors and Organs donated in Tamil Nadu are given below:

|                           | From October 2008 to<br>May 2018 |
|---------------------------|----------------------------------|
| Donors                    | 1,137                            |
| Heart                     | 430                              |
| Lung                      | 292                              |
| Liver                     | 1,060                            |
| Kidney                    | 2,059                            |
| Pancreas                  | 23                               |
| Small Bowel               | 3                                |
| Hands                     | 2                                |
| <b>Total Major Organs</b> | <b>3,869</b>                     |
| Skin                      | 100                              |
| Corneas                   | 1,731                            |
| Heart Valves              | 751                              |
| Blood Vessels             | 2                                |
| Bone                      | 6                                |
| Spine Bone & Disc Tissue  | 21                               |
| Abdominal Flap            | 1                                |
| <b>TOTAL</b>              | <b>6,481</b>                     |

**PRE-CONCEPTION AND PRE-NATAL  
DIAGNOSTIC TECHNIQUES (PROHIBITION  
OF SEX SELECTION) ACT, 1994**

**28.7** Under the Act, 6,717 scan centres have been registered so far and cases have been filed against 127 scan centres for the violation of this Act. Out of 127 cases filed Judgment had already been delivered in 108 cases and 19 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 has been conducted.

**The Tamil Nadu Private Clinical  
Establishments (Regulation) Amendment  
Act, 2018**

**28.8** The Government of Tamil Nadu, as a pioneer State to other States and the Central Government had enacted Tamil Nadu Private

Clinical Establishment (Regulation) Act, 1997 to regulate and control Private Hospitals, Nursing Homes and Other Clinical establishments in the State of Tamil Nadu by registration. However this Act was not brought into force due to non framing of the Rules. Mean while, the Government of India has enacted the Clinical Establishment (Registration and Regulation) Act, 2010 on 19.08.2010 and sent draft model State Rule to this Government for consideration and adoption. Honourable Minister for Health and Family Welfare, while moving the Demand No.19 relating to the Health and Family Welfare department for the year 2012-13 in the Legislative Assembly has announced that for making suitable amendments to the Tamil Nadu Private Clinical Establishment (Regulation) Act, 1997 and the Clinical Establishment (Registration and Regulation) Act, 2010 enacted by the Government of India a Committee comprising of eminent person will be constituted

and the Committee would submit its recommendations to the Government after examining the salient features of above two Acts. Accordingly, a Committee was constituted on 03.12.2012 and the Committee submitted its reports to the Government. Based on the recommendations of the said Committee, the Tamil Nadu Act of 1997 has been suitably amended to bring all the clinical establishments maintained by the Government and the Local Bodies under the purview of the said Tamil Nadu Act.

## Chapter - 29

### RESEARCH AND TRAINING

**29.1** State has always promoted Health Research and allowed concurrent studies on its programmes with a view to keep improving the scheme outputs and ultimately outcomes in the health sector. Government of India has created a new Department (Department of Health Research) under the Ministry of Health and Family Welfare and 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 have been launched:

#### **Multi-Disciplinary Research Units (MDRUs):**

With a view to create a dedicated infrastructure for research in Government Medical Colleges with special focus on Non-Communicable

Diseases (NCDs), this scheme has been approved to establish Multi-Disciplinary Research Units (MDRUs) in State Government run Medical Colleges. 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.

**Establishment of Network of Research Laboratories for Managing Epidemics and Natural Calamities - Viral Research Diagnostic Laboratory (VRDL):** These labs are being established at Madurai Medical College and Government Medical College, Theni. The scheme entails establishment of labs in the State Government Medical Colleges for timely diagnosis and management of viral epidemics and new viral infection at a cost of about Rs.1.44 crore for equipment and civil works /

renovation of building each 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. With a view to provide diagnostic facilities for viral diseases within the district level itself already using State funds, the Government have also 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.

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

## **Public Health**

**29.2** 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.

These programmes are continuing.

- e. The Tamil Nadu Dr MGR Medical University and the Government Medical Colleges also serve as base where the teaching staff also engage in publishing research papers which are topical in Nature and useful for furthering the cause of Medicine.

**29.3 STEMI India Protocol of STEMI (heart attack):** The STEMI India Protocol of STEMI (heart attack) care is a unique system for the treatment of heart attack developed by STEMI India. Unlike the western model of STEMI care which attempts to transport all patients with heart attacks to a major hospital for cardiac catheterisation and Primary PCI, the STEMI India Protocol combines the two strategies of Primary PCI and the Pharmaco-invasive strategy. This ensures that patients who are in rural areas and small towns are able to access state-of-the-art heart attack treatment. Furthermore, by utilising innovative technology and indigenously developed, IT-enabled and cloud-based ECG and monitoring devices, STEMI India has been able to overcome infrastructure and manpower deficiencies, to develop a world class system of care for STEMI. The effectiveness of this model was validated in a pilot study – the Tamil Nadu STEMI Project – conducted in Tamil Nadu. This

study was funded by the Indian Council of Medical Research (ICMR). ICMR has now recommended the STEMI India Protocol as the model for heart attack management in India. The two largest cardiology and physician scientific bodies in India, The Cardiological Society of India and the Association of Physicians of India, respectively, have joined STEMI India in endorsing this protocol and recommending it as the ideal model for a national STEMI Programme. STEMI India, a not-for-profit organisation, has been instrumental in developing this model and running a successful pilot project in Tamil Nadu. STEMI India has developed the unique 'STEMI Kit' (the STEMI ECG and monitoring device), algorithms for the management of STEMI, training modules for all participants in the STEMI Programme and has designed and developed the IT platform to run the entire system. The competencies gained by STEMI India in developing and running this

programme have made it a unique organisation in the field of cardiology. The STEMI India Heart Attack Programme is an outstanding example of a 'Make in India' programme, one that has the potential to save thousands of lives every year.

**29.4** The State is also unique and pioneering in its open approach in encouraging concurrent studies of the various programmes and processes and has had reports on State Health Accounts, Chief Minister's Comprehensive Health Insurance Schemes through the Public Health Foundation of India (PHFI), and consortium partners including Indian Institute of Technology, Madras and Sarvahita Health Research Association (SHReAs, Chennai) with support from USAID India, who have produced a timely and policy-relevant report State Health Accounts for Tamil Nadu which brings together a whole body of evidence on health care financing in the state that provides key insights on the

nature and quantum of financial flows, key entities that spend and provide care, the nature of care that is provided and cost of care. This report, which utilizes the globally recognized System of Health Accounts (SHA, 2011) framework, and follows the nationally agreed guidelines, serves as a first ever foundation on health care financing evidence in Tamil Nadu and facilitated the officials and other key stakeholders in setting policy priorities for more inclusive and sustainable health care financing in the state. Similarly the study on the CMHIS was based on an extensive analysis of administrative records and information collected through primary surveys from various stakeholders of the scheme. That report threw light on the overall structural features of the CMCHIS, its evolution over the years, and the challenges it faced in designing various mechanisms and procedures, to ensure effective and efficient implementation of the scheme and helped in

giving valuable inputs for the scheme continuance in early 2017.

**29.5** The State is proud of it being assessed among the top three States in the country in the Healthy States Progressive India report and is confident that the pioneering State schemes and the landmark schemes under the National Health Mission and its strong foundation will help in transforming the sector further and help the State in achieving the target of attaining the levels achieved by the developed countries in Health Indicators by 2023 as stated in Vision 2023.

**Dr. C. VIJAYABASKAR**

Minister for Health and Family Welfare