CHAPTER FOUR
HEALTH PROGRAMMES

Health Programmes are launched by the Government with an intention to control and eradicate diseases and to develop a healthy life. In the olden days, the word disease used to denote “lack of ease”, but in the modern world it denotes to some definite disorder or ailment in the human system i.e., body or mind or both\(^1\). With advancement of civilization, more and more diseases are coming to light. They are being investigated and classified into communicable and non-communicable diseases. A communicable disease is one in which the causative organism may pass or be carried from one person to another either directly or indirectly. It affects the health and well being of the people and loss of lives too. Control of communicable diseases is one of the major programmes under public health care services. Non-communicable diseases include cardiovascular\(^2\), renal, nervous and mental diseases, musculoskeletal conditions such as arthritis and allied diseases, chronic non-specific respiratory diseases (chronic bronchitis, emphysema, asthma), permanent results of accidents, senility, blindness, cancer, diabetes, obesity and various other metabolic and degenerative diseases and chronic results of communicable diseases\(^3\).

National Health Programmes

Since independence, several measures have been undertaken by the Union Government to improve the health of the people. Prominent among these measures are the National Health Programmes, which have been launched by the Central

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2. Cardio Vascular – a group of diseases of the heart and vascular system.
Government for the control and eradication of communicable diseases, improvement of environmental sanitation, raising the standard of nutrition, control of population and improving rural health. Various international agencies like WHO, UNICEF, World Bank and a number of foreign agencies like SIDA (Swedish International Development Agency), USAID (United States Agency for International Development) and DANIDA (Danish International Development Agency) have been providing technical and material assistance in the implementation of the programmes.

The Department of Health is implementing National Health Programmes throughout the country. To eradicate and control major communicable diseases, a number of National Programmes are in operation. They are National Malaria Eradication Programme, National Smallpox Eradication Programme and National Leprosy Control Programme, besides the control programmes for Tuberculosis, Filaria, Cholera and sexually transmitted diseases. The main objectives of the National Programmes are control and eradication of communicable diseases and improvement of environmental sanitation.

Programmes in Kanyakumari District

Communicable and non-communicable diseases are very common in Kanyakumari District for a long time. Cholera had been the most serious epidemic in the district. The densely populated coastal villages in the taluks of Kalkulam and Vilavancode appear to have been the favourite breeding grounds for this disease. Other communicable diseases in Kanyakumari District are malaria, filaria, tuberculosis, leprosy and dengue. More than 50% of death occurrence is due to

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4 Madras Information, 1956, pp.9-11.
5 Incrediible India 2009 At a Glance, New Delhi, 2009, p.212.
communicable diseases. However, with the implementation of several programmes for the eradication of communicable diseases in the district, number of cases reported recently is less. But cases of non-communicable diseases have been increasing every year in the district. Important eradication programmes implemented in the district are briefed below.

**National Malaria Eradication Programme**

The word malaria is derived from two Italian words mal (bad) and aria (air). This name was applied to the disease, because it was believed that the disease was due to inhalation of poisonous emanations from the ground, especially marshy places. Malaria is a potentially life threatening disease caused by Parasites known as *Plasmodium vivax* (*P. vivax*), *Plasmodium falciparum* (*P. falciparum*), *Plasmodium malaria* (*P. malaria*) and *Plasmodium ovale* (*P. ovale*). It is transmitted by the infective bite of Anopheles mosquito. The two types of parasites of human malaria reported from India are *Plasmodium vivax* and *Plasmodium falciparum*. The main clinical presentation is fever with chills, nausea, vomiting and headache. The diagnosis is confirmed by microscopic examination of a blood sample. Majority of the patients recover from the acute episode within a few days of treatment. If treatment is not taken in time, the conditions of the patients with *P. falciparum* can deteriorate rapidly.

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6 Yash Pal Bedi, *op.cit*, p.300.
8 Report from the Department of Public Health, Nagercoil, 2005, p.5.
Malaria has been a major public health problem in India from ancient times. It took a considerable toll of human lives and caused great economic loss to the country and untold suffering among human beings. At the time of independence, it was estimated that about 75 million people were suffering from the disease in a normal year and twice the number during epidemics and an annual mortality rate is estimated 0.8 million\(^{10}\). So among the communicable diseases malaria received top priority in the health schemes under the First and Second Five year plans. Hence, an organized programme for control of Malaria in the country has been in operation since 1953. In 1953 the Government launched the National Malaria Control Programme (NMCP) to reduce the incidence of malaria in the country\(^{11}\). In 1958 NMCP was converted to the National Malaria Eradication Programme (NMEP) with an objective to eradicate the disease\(^{12}\). The anti parasitic as well as anti vector measures undertaken under NMEP has brought down the malaria incidence to a very low level with no death during the period 1958-1965.

In 1977, the Modified Plan of Operation (MPO) has been implemented in the states and districts\(^{13}\) to prevent death due to malaria, to reduce malaria morbidity and to undertake intensive antimalarial measures. Under MPO the following activities are carried out in the state and district. They are; active case detection by fortnight visits to the households by basic health staff in the rural areas; areas with annual malarial incidence of two and above are sprayed with two rounds of DDT (Dichloro Diphenyl

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\(^{12}\) Ibid., p.8.

\(^{13}\) Tamil Nadu State Administration Report 1977-1978, Madras, p.130.
Trichloro-ethane is a white crystalline powder. This is carried out by entomological teams; confirmed malaria cases are being treated with three days radical treatment; examination of collected blood smears through active case and passive case detection for material parasite at the PHC Laboratory and contact and mass blood survey are carried out for every passive cases¹⁴.

In 1994, resurgence of malaria compelled the Government of India to appoint an Expert Committee on malaria to identify the problem areas and to suggest specific measures. As per the recommendation of the expert committee, Malaria Action plan (MAP) is implemented in the State since 1996¹⁵. In 2000 Government of India renamed NMEP as National Anti-Malarial Programme (NAMP)¹⁶. A Malaria Unit is set up in each district. District Health officer is responsible for the implementation of this programme. The existing Unit officers have been designated as District Malaria Officer (DMO) and are posted at the District headquarters. He is assisted by Assistant Malaria Officers. In 2003 the programme was renamed as National Vector Borne Disease Control Programme (NVBDCP) and all vector borne diseases like malaria filariasis and dengue have been brought under the ambit of this programme¹⁷.

In Kanyakumari District the Malaria eradication programme was implemented fully after the introduction of the Modified Plan of Operation in 1977. As per this plan the PHCs at the block level constitute the basic health unit of antimalarial operations. After the Modified Action Plan, a Malaria Health Unit was set up in the district under

¹⁴ Ibid, p.130.
¹⁷ Ibid., p.5.
the control of District Malaria Officer\textsuperscript{18}. He is under the control of District Health officer who will be over all charge of the Malaria programme in the district. PHCs in Kanyakumari play a key role in the execution of the programme. Multi purpose health workers, Malaria inspectors, basic health inspectors and District Malaria officer are available in the District to carry out the eradication activities.

Malaria cases are detected through active and passive surveillance system\textsuperscript{19}. The detected cases are radically treated. Malaria transmission is checked through focal residual indoor insecticidal spray in and around the houses where malaria cases are detected. The inmates of these houses are screened for malaria through blood smear examination and it is collected during home visits by fieldworkers every fortnight\textsuperscript{20}. Radical treatment is given to a microscopically confirmed malaria patient for three days for \textit{P. falciparum}\textsuperscript{21}. In areas of high incidence, regular in door insecticidal spray is done. Fogging operations are undertaken in high risk areas. By the successful implementation of the programme in Kanyakumari District, death due to malaria is declining every year.

\textbf{National Filaria Control Programme}

Lymphatic filariasis also known as elephantiasis is a serious debilitating and incapacitating disease. The transmission of filarial is through mosquitoes namely

\begin{itemize}
\item \textsuperscript{18} Tamil Nadu State Administration Report Nagercoil, 1977-1978, Madras, p.130.
\item \textsuperscript{19} Tamil Nadu Development Report, Planning Commission, Government of India, New Delhi, 2005, p.176.
\item \textsuperscript{20} Report from the Public Health Department, Nagercoil, 2005, p.8.
\item \textsuperscript{21} Ibid, p.13.
\end{itemize}
The infected person may develop swelling of limbs and genitals which keep on increasing, making the person incapacitated. The person also suffers from frequent attacks of lymphangitis, high fever, swelling and pain. There is no cure at this stage and person is forced to live with huge swellings prone to secondary infections. Filariasis is also a major public health problem in India. For the control of filariasis, Government of India launched the National Filaria Control Programme in 1955 in all the states. In Tamil Nadu the filarial disease control activities are carried out in 43 urban areas. In these Urban areas, 25 control Units, 44 night clinics are functioning. The programme is also implemented in Kanyakumari District.

For controlling the spread of filariasis, the NFCP has been implemented in Kanyakumari District since 1985 with one control unit at Nagercoil and three night clinics at Padmanabhapuram, Colachel and Kuzhithurai. The controlling unit functioning in Nagercoil town is carrying out anti-larval measures against the mosquitoes responsible for the transmission of filariasis. Besides anti larval measures, night blood survey is also carried out to detect the microfilarial carriers. Detected Microfilaria cases are given treatment with DEC (Diethyl Carbamazine Citrate) tablets to eliminate the reservoir of infection.

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clinics at Colachel, Padmanabhapuram and Kuzhithurai also carry out night blood survey and detect the microfilarial carriers and give treatment with DEC tablets. Mosquito larvicidal oil, baytex and abate are used as laricides\(^\text{27}\). In Kanyakumari District, the incidence of filaria is very high in Eranial and Pudukadai area. In addition to the NFCP, anti-filarial measures are being implemented in Eranial, Thiruvithancode, Puthukadai, Karungal and Thalakulam.

A pilot project for DEC medicated salt (Health salt) is implemented in Kanyakumari District with effect from October 1995. In endemic villages of Kanyakumari District, DEC medicated salt packets are distributed through the Public Distribution System in September 1996 in Kanyakumari District\(^\text{28}\). Tamil Nadu Government also conducted single Dose Mass DEC Drug Programme during 1996 for the eradication of filariasis and in 2007 this programme was conducted in Kanyakumari District also\(^\text{29}\). Mass DEC and Albendazole tablets administration have been carried out during every month in Kanyakumari District in order to eliminate the lymphatic filariasis. In 2009, free DEC and Albendazole tablets have been distributed to 14, 89, 631 people in the age group of 2 to 60 years\(^\text{30}\). Rural filariasis survey is conducted every year in all the villages of the district by the staff of the PHCs. Survey of villages for filariasis infection in Kanyakumari District is given below\(^\text{31}\).

\(^{27}\) Gopala Krishnan, M. (Ed.), \textit{op.cit.}, p.108.


\(^{30}\) Report from the Department of Public Health, Nagercoil, 2009, p.3.

\(^{31}\) Report from Filariasis Control Unit, Nagercoil, 2000, pp.5-10.
From the above survey in 2000, it is seen that the incidence of filariasis is very high in Pudukadai and Eraniel area in Kanyakunari District. Therefore, preventive and Control measures were taken by the department to eradicate the disease in these villages.

**National Leprosy Eradication Programme**

Leprosy is one of the major health and socio economic problems in the country. It is a chronic infection caused by mycobacterium leprae, not only affects the skin and peripheral nerves but has a wide range of clinical manifestation. It is one of the oldest diseases known to mankind. It is a chronic communicable disease characterized by lesions of the skin and by involvement of peripheral nerves with anesthesia, muscle weakness, paralysis and tropic changes in the skin muscles and

<table>
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<td>967</td>
<td>2019</td>
</tr>
</tbody>
</table>

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32 Yojana, op.cit., Vol.53, October 2009, New Delhi, p.47.
small bones of hands and feet\textsuperscript{33}. The disease is associated with crippling deformities and destitution, if not treated in time\textsuperscript{34}.

Leprosy has been prevalent in the country for a long time. So the Government of India launched the National Leprosy Control Programme in 1955 to control the spread of the disease and to provide modern treatment facilities to the leprosy patients\textsuperscript{35}. From 1955 up to 1968-1969, this programme had a centrally aided status but from 1969-1970, it was a centrally sponsored programme. The programme is implemented through the establishment of Leprosy control units, Survey, Education and Treatment centres and Urban Leprosy centres by the State Government\textsuperscript{36} and the operation of the programme is case detection, treatment, rehabilitation and proper motivation by health education. In 1983 the National Leprosy control programme was redesignated as the National Leprosy Eradication programme\textsuperscript{37} with the main thrust on detection and sustained regular treatment of all leprosy patients. The revised strategy was based on early detection of cases by population surveys, school surveys and voluntary referral, multi–drug therapy programme and rehabilitation activities.

In Kanyakumari District control units and centres were established for the eradication of leprosy. Deputy Director of Medical Services (Leprosy), Nagercoil is

\textsuperscript{33} Yash Pal Bedi, \textit{op.cit.}, p.376.


responsible for the implementation and supervision of the programme. The Leprosy control unit, Nagercoil, Government Leprosy control unit Vilavancode, Survey, Education and Treatment unit attached to the PHC Kuttakuzhi, Government Hospital, Colachel, District Hospital, Nagercoil and Government Headquarters Hospital, Padmanabhapuram extend treatment for leprosy patients. Free Multi Drug Therapy (MDT) programme was launched in 1983 in a phased manner\textsuperscript{38} and it was also implemented in the district. With the introduction of MDT, there has been a remarkable improvement in the recovery of leprosy patients. Training was also given to all the medical officers in Government Hospitals, PHCs and HSCs for giving treatment to leprosy patients.

In Kanyakumari District, one temporary hospitalization ward with 20 beds was established in Government Medical College Hospital, Azaripallam\textsuperscript{39}. The Patients who were referred by other institutions, are being admitted here and given treatment. State Government allotted funds to leprosy patients for buying supportive medicine (dressing materials like cotton and cloth) general medicine and welfare materials like spectacles, blankets and micro cellular chappels\textsuperscript{40}. It also granted a pension of Rs. 400 per month to leprosy handicapped persons by issuing a certificate of Deputy Director of Leprosy of concerned district. Two leprosy Rehabilitation Colonies at Kanyakumari and Thovalai are also functioning in the district to give asylum to the affected persons. It is run by an organization called Daughters of Mary. Nearly 50

\textsuperscript{38} Annual Public Health Administration Report 2008-2009, op.cit, p.270.

\textsuperscript{39} Report from the Office of Deputy Director of Leprosy, Nagercoil, 2010, p.5.

\textsuperscript{40} Personal Interview with Mr. Joe Gladston, Lab technician, Leprosy Unit, Nagercoil, 5 May 2010.
houses are there in each colony\textsuperscript{41}. For giving awakening among the public about leprosy, skin camps and film show are conducted in the district. Anti – leprosy slogans are painted on the walls of all the Government Medical institution in the district.

**National Tuberculosis Control Programme**

Tuberculosis (TB) is a serious public health problem in India. It is a disease of poverty and low standards of living\textsuperscript{42}. It is chronic bacterial disease and constitutes an important cause of death in most parts of the world. It is caused by tubercle bacillus, which was first discovered by Robert Koch, a German Scientist in 1882\textsuperscript{43}. Before the name tuberculosis came into common use, the disease was known as ‘consumption’ or ‘phthisis’\textsuperscript{44}. It belongs to genus Mycobacterium. It is an infectious disease, mainly transmitted by exposure to tuberculosis bacilli spread in to the air from a patient with pulmonary tuberculosis. It affects both pulmonary and extra pulmonary tissues coughing, wheezing and even talking by a patient fill the air with droplets of moisture containing the tuberculosis bacilli. A single patient can infect ten or more people in a year. This disease can develop both in young and old and can be seen in urban as well as rural areas.

Every year, approximately 1.8 percent of the population is suffering from pulmonary Tuberculosis and among them about one fourth are infectious cases. In order to tackle this problem effectively the National Tuberculosis Control Programme

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\textsuperscript{41} Personal Interview with Mr.Raja, Councillor, Thovalai, 8 June 2010.

\textsuperscript{42} Rajesh Bhatia, *Immunisation against Infectious Diseases*, New Delhi, 1994, p.22.

\textsuperscript{43} Yesh Pal Bedi, *op.cit.*, p.360.

\textsuperscript{44} Ibid., p.361.
(NTCP) was started in 1962\(^{45}\). The aim of the programme was to provide well equipped District TB centres to undertake TB case finding, treatment and to undertake preventive activities, in association with all the health and medical institutions located in the district\(^{46}\). It is an integrated programme with the general health services. The Government provides good infrastructural facilities on general health services in the form of District hospitals, Taluk and Non-taluk hospitals, PHCs and HSCs. The NTCP has incorporated its diagnostic and treatment activities into the network of these general health services. So that the tuberculosis programme could became easily available to the patients.

The NTCP has been accorded high priority by the government with the inclusion of NTCP in the 20 point programme, 1975. There has been considerable increase in budget allotment also. The international agencies like WHO, SIDA, DANIDA, World Bank are providing assistance to NTCP\(^{47}\). NTCP operates through the District Tuberculosis Programme (DTP), which is the backbone of the NTCP.

NTCP is in operation in Tamil Nadu from the year 1963\(^{48}\). Under this programme in Tamil Nadu, District TB centres have been established and one each in all the districts of Tamil nadu. The District TB units are functioning as units of NTCP\(^{49}\). Free diagnostic and treatment facilities for TB patients have been provided in all the Government Hospitals, Dispensaries, and PHCs in Tamil Nadu under the


\(^{47}\) Park.K., op.cit., p.304.


NTCP. Intensive inpatient treatment is provided for the actually ill cases in the TB Sanatoria and TB wards in general medical institutions\textsuperscript{50}. BCG (Bacillus calmette Guerin) vaccination scheme forms part of DTP and is the fundamental unit of the NTCP\textsuperscript{51}. This vaccine protects the children by organizing tissue and defends to fight against the Tubercle Bacillus.

In Kanyakumari District, the District TB Centre is functioning at Asaripallam in Nagercoil\textsuperscript{52}. It is headed by a Civil Surgeon (Tuberculosis specialist), designated as the District Tuberculosis officer. Free tuberculosis medical treatment is done in all the PHCs, Hospitals and Dispensaries. District TB centre at Asaripallam a specialized tuberculosis institution in the district is concerned with planning implementation, coordination and supervision of tuberculosis case finding and treatment. It is thus the pivot around which the DTP revolves. Tuberculosis case finding camps are organized in the district since 1985 by the District Tuberculosis Centre with the active cooperation of the voluntary institutions. During 1986 twelve such camps were organized in the district in which 4335 persons were examined\textsuperscript{53}. Mantoux tests and sputum examination have been done in the spot. BCG vaccination has also been administered to the eligible children in these camps.

\textsuperscript{50} Tamil Nadu State Administration Report 1989-1990, Madras, p.184.
\textsuperscript{52} Madras State Administration Report 1965-1966, Government of Madras, p.120.
\textsuperscript{53} Gopala Krishnan, M. (Ed.), \textit{op.cit.}, p.1075.
Revised National Tuberculosis Control Programme

The National Tuberculosis control programme could not achieve the desired results as expected. Therefore, the Revised National Tuberculosis Control Programme (RNTCP), based on the internationally recommended Directly Observed Therapy Short-course (DOTS) was launched in 1997 with the support from World Bank and other development partners\textsuperscript{54}. In terms of treatment of patients, RNTCP is the largest TB control programme in the world.

In RNTCP, patients are diagnosed accurately, supplied drugs regularly in their cases. There is an increase in the proportion of patients cured. Sputum microscopic examination is done in designated RNTCP microscopy centres. They are established in the district for every one lakh population. It is essential to examine three sputum specimen of a patient before conclusion is made\textsuperscript{55}. A senior TB Laboratory Supervisor is appointed for every microscopy centre to check the positive slides. Sputum microscopy not only confirms the diagnosis, but also indicates the degree of infectivity and response to treatment.

Directly Observed Therapy Short-course is a community based tuberculosis treatment and care strategy. The three important components of DOTS are appropriate medical treatment, supervision and motivation by a health or non-health worker and monitoring of disease status by the health service\textsuperscript{56}. The success of DOTS depends on five components. They are political commitment, good quality sputum microscopy,

\textsuperscript{55} Dr. Lilly Premila, C., op.cit., p.97.
\textsuperscript{56} Park. K., op.cit., p.367.
Directly Observed Treatment, uninterrupted supply of good quality of drugs and accountability. \(^{57}\)

In Kanyakumari District, RNTCP was started on 2 October 2001 on Directly Observed Therapy Short-course (DOTS) basis. This programme is implemented all over the district at all Government Hospitals, Government Medical College, all PHCs, Municipal Health Posts and at one private institution, CSI Hospital at Neyyoor. \(^{58}\) The designated RNTCP microscopic centres in Kanyakumari District where sputum smear examinations are done are District TB centre, Asaripallam, Kanyakumari Government Medical College, Asaripallam, Government PHCs at Agastheeswaram, Rajakkamangalam, Muttom, Killiyoor, Arudesam, Edaicode, Kuttakuzhi, kotha nallur and Chenbaga Ramanputthur, Government Hospitals at Colachel, Kuzhithurai, Arumanai, Kulasekaram, Padmanabhapuram and Boothapandi and one private hospital CSI Hospital at Neyyoor. \(^{59}\) In Kanyakumri District in the RNTCP, the proportion of TB cases which are confirmed in the laboratory and the care rate are both more than double that of the previous programme.

**National Programme for Control of Blindness**

The Government of India launched the National Programme for Control of Blindness (NPCB) in 1976. \(^{60}\) It is a hundred percent centrally sponsored scheme with the goal of reducing the prevalence of blindness from 1.4 to 0.3 percent. The objectives of the programme are to reduce the backlog of blindness through

\(^{57}\) Ibid., pp.367-368.


\(^{59}\) Ibid, p.2.

identification and treatment of blind, to develop eye care facilities in every district, to develop human resources for providing eye care services, to improve quality of service delivery and to secure participation of voluntary organizations in eye care. The services provided under the programme include free cataract surgery including Intra – Ocular Lenses (IOL) implantation. Detection and correction of refractive errors in children and collection and utilization of donated eye for treatment of Corneal Blindness are other important activities of the programme.

The programme has developed a network of eye care facilities at various levels. At the tertiary level Medical Colleges and Regional Institutes of Ophthalmology have been upgraded. At the secondary level district hospitals have been equipped for ophthalmic services. At the primary level PHCs have been upgraded by providing ophthalmic equipments and posting ophthalmic assistants and District Blindness Control Societies have been set up in all States.

To govern the activities of the National Programme for Control of Blindness, every District in the State has one District Blindness Control Society with the District Collector at its Chairman. Tamil nadu State Blindness Control Society was formed as a separate entity on 1 April 2001. It gave thrust to the goal by planning, execution and monitoring at the District level and later on 1 April 2007 it has been merged with the state Health Society.

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In Kanyakumari District the District Blindness Control Society was formed during 2001 and implemented eye care activities including cataract operation\textsuperscript{65}. District collector is the Chairman, attending all functions of District Blindness Control Society. The District Blindness Control society undertake eye care activities such as; treatment of all eye ailments; free distribution of Spectacles to school children under school screening programme; conducting eye camps in the rural areas by District Mobile Ophthalmic Unit; prescribing of glass through refractive error test; cataract operations and intra Ocular Lenses implantation\textsuperscript{66}.

The cataract surgery is undertaken in the following Government Hospitals where all infrastructure facilities including Theatres are available. They are District Eye Hospital, Asaripallam (Kanyakumari Government Medical College Hospital, Asaripallam), Government Headquarters Hospital, Padmanabhapuram and the Government hospital, Kuzhithurai\textsuperscript{67}. In the Government sector six Ophthalmologists are available in Kanyakumari District. A separate Eye ward with 32 beds and the Department of Eye are functioning in the Kanyakumari Medical College Hospital, Asaripallam\textsuperscript{68}. The District Blindness control society conducts Eye camps in the rural areas in association with Non Governmental Organization, Voluntary organization and other service organizations. Catract surgery performed for 2006-2007 in Kanyakumari District is depicted below\textsuperscript{69}.

\begin{thebibliography}{99}
\bibitem{65} Report from the Department of Medical and Rural Health Services, Nagercoil, 2007, p.1.
\bibitem{66} Ibid., p.2.
\bibitem{67} Report from the Department of Medical and Rural Health Services, Nagercoil, 2010, p.2.
\bibitem{68} Report from the Kanyakumari Medical College Hospital, Asaripallam, 2009, p.6.
\bibitem{69} Report from the Department of Medical and Rural Health Services, Nagercoil, 2007, p.1.
\end{thebibliography}
### National AIDS Control Programme

Acquired Immune Deficiency Syndrome (AIDS) / Human Immunodeficiency Virus (HIV) is spreading in all parts of India at a faster rate. Hence the Government of India launched a comprehensive, National AIDS Control Programme (NACP) from April 1992 with an aim to control it. The first phase of the NACP was initially commenced in 1992 and was extended up to 1999. The second phase of the programme was commenced with effect from April 1999 and was launched to achieve two objectives. They are to reduce the spread of HIV infections and to strengthen the capacity of Central aid State Governments to respond HIV/AIDS and long-term basis. All States have constituted State AIDS Control Societies. The Central Government through the National AIDS control organization is providing technical, managerial and financial resources to State AIDS Control Societies for the implementation of the programme components. In April 2002 Government of India developed National AIDS Prevention and Control policy. The objective was to bring

<table>
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<th>Government side</th>
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<td>Target</td>
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<td>2000</td>
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down the rate of HIV transmission to zero level by the year 2007. The third phase (2007-2012) of NACP was launched in July 2007 had the goal to halt and reverse the epidemic in the country over the next five years by integrating programmes for prevention care, support and treatment\(^{74}\).

AIDS awareness and its control have received special attention in Tamil Nadu since the first case of HIV in the country was reported here in 1986\(^{75}\). The State level AIDS Control Society formed in 1994\(^{76}\) in TamilNadu was the first in the State. The objective of this organization is to control the problem of AIDS in an effective manner and to create awareness about HIV infection throughout the State. The Key activities of Tamil Nadu state AIDS Control Society (TANSACS) include information, education and Communication activities, targeted intervention programmes through NGOs, institutional and infrastructural strengthening, training and capacity building activities, Sexually Transmitted Disease (STD) control programme, condom promotion activities. HIV surveillance, Voluntary Counselling and Testing Centres (VCTC) to identify HIV affected and to provide counselling, prevention of parent to child transmission, Anti-retroviral therapy (ART) and School AIDS Educational Programme\(^{77}\). School AIDS education was started in Tamil Nadu in 1997-1998 and more Students are benefited every year.

\(^{74}\) India 2011, A Reference Annual, Government of India, New Delhi, 2011, p.488.
\(^{77}\) Ibid., p.125.
The infrastructure network available for carrying out the AIDs Control Programme includes Prevention of Parent to Child Transmission (PPTCT) centres, STD clinics, VCTC, Institutional care centres and Government hospitals. In Kanyakumari District STD clinic is functioning at Government Head Quarters Hospital, Padmanabhapuram from August 2006. STD cases were tested and suspected cases were referred to Kanyakumari Government Medical College Hospital, Asaripallam. Thirteen Integrated Counseling and Testing centres (ICTC) both VCTC and PPTCT are functioning from April 2005 with a Medical officer, Counsellor Lab Technician and Health Visitor.

HIV is transmitted more easily if a person is already affected by STD. Therefore, diagnosis and treatments of STD is considered as an important measure to control the spread of HIV. HIV testing is done for all Ante Natal Care (ANC) Mothers, STD Patients and other volunteers attending the clinic. Patients found positive are given counselling, systematic treatment and advised to attend Madurai Medical College for ART if needed. On 25th May 2010 ART centre was opened for AIDS patients in the Kanyakumari Government Medical College Hospital, Asaripallam. Awareness Programmes about transmission of HIV virus, methods and prevention are also done in Kanyakumari District through radio, television press, folk dances, field publicity, posters, pamphlets, booklet, advertisements film clippings and through NGOs. The Red Ribbon clubs has emerged as the world’s largest mass

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78 Report from the Department of Medical and Rural Health Services, Nagercoil, 2007, p.2.
79 Ibid., pp.2-3.
80 Anti- Retroviral Therapy – This treatment is given at Government hospitals at free of cost for pregnant women, children upto 15 years of age and full blown AIDS case.
81 Thinathanthi, Nagercoil, 26 May 2010, p.16.
mobilization programme against HIV/AIDS\textsuperscript{82}. It conducted awareness programmes in the Colleges and Schools on HIV prevention. World AIDS day, December 1 was also celebrated every year in Kanyakumari District.

Details of Treatment particulars for the year 2006-2007 in STD clinics at Government Headquarters Hospital Padmanabhapuram is given below\textsuperscript{83}.

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Particulars</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No. of person attended in the Counselling Testing Centre</td>
<td>837</td>
<td>2257</td>
<td>3094</td>
</tr>
<tr>
<td>2</td>
<td>No. of person counselled</td>
<td>837</td>
<td>2257</td>
<td>3094</td>
</tr>
<tr>
<td>3</td>
<td>No. of person tested for HIV</td>
<td>837</td>
<td>2257</td>
<td>3094</td>
</tr>
<tr>
<td>4</td>
<td>No. of positive cases</td>
<td>4</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>No. of person referred in</td>
<td>223</td>
<td>1070</td>
<td>1293</td>
</tr>
<tr>
<td>6</td>
<td>No. of person referred out</td>
<td>69</td>
<td>309</td>
<td>378</td>
</tr>
</tbody>
</table>

\textbf{National Mental Health Programme}

Mental Health disorders are actually more prevalent than is apparent on the surface. While such disorders do not contribute to mortality, they have a serious bearing on the quality of life of the affected persons and their families. The National

\textsuperscript{82} India 2011, A Reference Annual, Government of India, New Delhi, p.400.
\textsuperscript{83} Report from the Department of Medical and Rural Health Services, Nagercoil, 2007, p.2.
Mental Health Programme (NMHP) was launched in 1982\textsuperscript{84} providing community based mental health care using the existing public health infrastructure. The aim of the NMHP is prevention and treatment of mental and neurological disorders and associated disabilities and use of mental health technology to improve general health services and application of mental health principles in total national development to improve the quality of life. A District Mental Health Scheme has been constituted under this programme. It is a centrally sponsored scheme launched in 1996 and involves extending psychiatric services at the community level\textsuperscript{85}. The NMHP also includes strengthening of the Medical College Department of Psychiatry, research and training.

Kanyakumari District faces a unique problem of deserted, mentally ill or mentally retarded or disoriented aged and people with Psychiatric, severe neurotic and serious geriatric problems in places like Kanyakumari, Suchindrum and Nagecoil. The Government have implemented Mental Health programme in Kanyakumari District on 9\textsuperscript{th} November 2004\textsuperscript{86} and Psychiatric specialist is posted in the Kanyakumari Government Medical College Hospital, Asaripallam. The Joint Director of Medical and Rural Health Services is the monitoring authority of the programme. To improve the programme in Kanyakumari District, training was provided to twenty five Medical officers working in the PHCs and four doctors from Government Hospitals\textsuperscript{87}. Public awareness manual is prepared and distributed to the public. The PHCs are equipped to

\textsuperscript{86} G.O.Ms.No. 369, Health Department, 9 November 2004.
\textsuperscript{87} Report from the Department of Medical and Rural Health Services, Nagercoil, 2007, p.2.
deal with minor mental illness at the rural areas. The Government Headquarters Hospital, Padmanabhapuram has a separate ward with 10 beds for mentally ill. The Psychiatrist working in this hospital also visits the taluk hospitals and provides out patient care to the mentally ill. The Institute of Mental Health, Madras is the only Mental hospital in the State of Tamil Nadu\textsuperscript{88} and it has a bed strength of 1800. People of Kanyakumari District also use this hospital for mental treatment. It has completed its centenary in 1971.

**National Cancer Control Programme**

Cancer, a non communicable disease is an important public health problem in India. It can occur at any site or tissue of the body and may involve any type of cells. It has become one of the leading causes of death in India. As cancer has a high rate of mortality unless detected and treated early, the emphasis is made on prevention, early detection of cases and augmentation of treatment facilities. With the objectives of prevention, early diagnosis and treatment, the National Cancer Control Programme was launched in 1975\textsuperscript{89}, which was subsequently modified in 1985 and in 2004.

The objectives of National Cancer Control Programme are primary prevention of cancers by health education regarding hazards of tobacco consumption and necessity of genital hygiene for prevention of cervical cancer, secondary prevention by early detection and diagnosis of cancers, strengthening of existing cancer treatment facilities which were inadequate and palliative care in terminal stage cancer\textsuperscript{90}. The five schemes included under the revised programme are recognition of new Regional

\textsuperscript{88} Tamil Nadu State Administration Report 1983-1984, Madras, p.117.

\textsuperscript{89} India 2006, A Reference Annual, Government of India, New Delhi, 2006, pp.455-456.

\textsuperscript{90} Incredible India 2009 At a Glance, New Delhi, 2009, p.217.
Cancer Centres (RCCs), strengthening of existing RCCs, Development of Oncology wing in Medical Colleges, District Cancer Control Programme and health education and early detection activities\textsuperscript{91}.

Despite these arrangements, incidence of cancer is reportedly on the rise in the district. The more prevalent cancers are cancer of uterine cervix, cancer of breast, oral cancers and lung cancers. Life style habits like tobacco chewing, cigarette smoking are some of the factors in this prevalence. The focus in cancer control is on early detection, proper diagnosis and timely treatment. State Government has taken steps for the control of cancer in the district with the help of Regional cancer centre scheme. International Cancer Centre was established in Neyyoor, Kanyakumari District gives good guidelines and treatment to the cancer patients in our district.

**Dengue fever**

Dengue fever is a viral disease, transmitted by aegypti mosquitoes which bite during day time\textsuperscript{92}. They breed in small water collections in the discarded artificial containers such as plastic cups, buckets, tyres, coconut shells etc, in which water stagnates for more than a week. The risk of dengue has shown an increase in recent years due to rapid urbanization, life style changes and deficient water management. Dengue is a self limiting acute disease characterized by fever, headache, muscle pain, joint pain, rash, nausea and vomiting\textsuperscript{93}. Dengue cases are reported in almost all the districts of Tamil Nadu during the recent years. The Directorate of National Vector Borne Disease Control has provided detailed guidelines for the prevention and control.

\textsuperscript{91} India 2006, A Reference Annual, Government of India, New Delhi, 2006, p.456.
\textsuperscript{92} Annual Public Health Administration Report 2008-2009, op.cit, p.243.
\textsuperscript{93} India 2011, A Reference Annual, Government of India, New Delhi, 2011, p.485.
of Dengue to the affected areas. As there is no specific treatment for dengue, the emphasis is on avoidance of mosquito breeding conditions in homes, workplaces and minimizing the man–mosquito contact. Community awareness and participation as well as intersect oral collaboration are crucial for effective control of dengue.

**Chikungunya fever**

Chikungunya is a debilitating non-fatal viral illness, which has re-emerged in the country after a gap of three decades. In India a major epidemic of chikungunya fever was reported in Kolkata during 1963 and Chennai in 1964. After 42 years, in 2006 the fever had spread in all the districts of Tamil Nadu. It resembles dengue fever, and is characterized by severe joint pain as well as fever and rash. Caused by chikungunya virus, it is spread by the bite of female Aedes mosquitoes. Humans are considered to be the major source or reservoir of chikungunya virus for mosquitoes. Therefore, the mosquitoes usually transmit the disease by biting infected persons and then biting others. The infected persons can not spread the infection directly to other person. Chikungunya outbreaks typically result in large number of cases but deaths are rarely encountered. Joint pains sometimes persist for a long time even after the disease is cured.

Kanyakumari district was one of the worst hit districts due to this disease. Although this district enjoys high literacy rate and advanced in medical facilities, the outbreak of chikungunya had adversely affect the people. There is no reported death directly related to chikungunya. Subsequently, the Health Department has taken

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various control measures. They are sentinel surveillance centres established with diagnostic facilities, special environment clean campaign organized frequently, students were trained for source reduction activities, monitoring of fever cases and larval density through online system and Government sanction funds during pre and post monsoon period for the control of chikungunya and vector borne diseases\textsuperscript{96}. Special programmes may be carried out with the involvement of mass media including local vernacular newspapers magazines, radio, television as well as outdoor publicity like hoardings, drum beating and rallies in Kanyakumari district.

Thus, the Government of India after Independence has launched various National Health Programmes to enhance the health status of the people of Kanyakumari district. As a result of these programmes, the social-economic life of the people has improved considerably. Moreover, the programmes have rapidly expanded wide infrastructure medical facilities in the district. In consequence, the communicable diseases in the district have been controlled. But the non-communicable diseases cases have been added every year. Due to the implementation of National Health programmes for the eradication of Communicable diseases, there is less number of cases reported recently. There are diseases still existing but the trend of infected cases is rapidly declining in the District.

\textsuperscript{96} Annual Public Health Administration Report 2008-2009, op.cit, p.244.