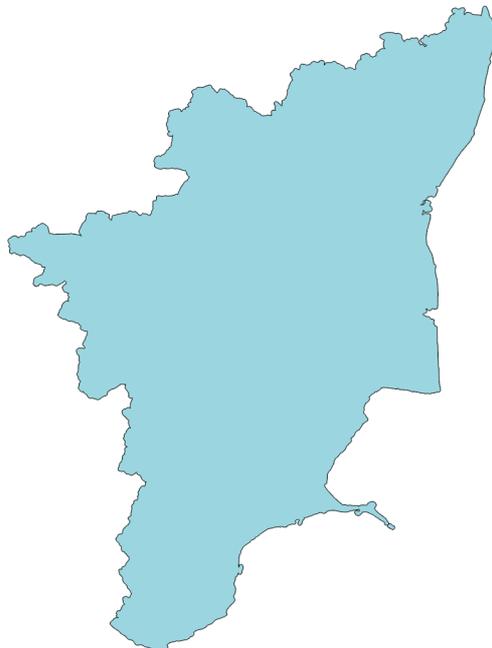


ICMR-National Centre for Disease Informatics and Research

Profile of Cancer and Related Factors - Tamilnadu

2021



Tamil Nadu Profile of Cancer and Related Factors

Background

Non Communicable Diseases (NCDs) include cardiovascular disease (heart attack and stroke), diabetes, cancer, and chronic respiratory diseases. In India, NCDs' are responsible for 63% of the deaths, among which cancers account for 9% of deaths.^[1] Cancer is a disease characterized by uncontrolled growth of the body cells in any part, which can spread to other parts of the body. The normal cells in the body are transformed into tumour cells, resulting from an interaction between an individual's genetic factors and exposure to external agents or 'carcinogens'. Many behavioural and environmental risk factors, such as tobacco use, alcohol use, unhealthy diet, physical inactivity, obesity, infections, air pollution, are associated with the risk of developing cancer. Close to half of the cancer deaths can be avoided by the prevention and control of risk factors.^[2]

In India, the National Cancer Registry Programme (NCRP) has systematically collected data on cancer since 1981. The NCRP is implemented by National Centre for Disease Informatics and Research (NCDIR) of the Indian Council of Medical Research at Bengaluru. Cancer data is collected through a network of population-based cancer registries (PBCRs) and hospital-based cancer registries (HBCRs).

The Cancer Fact Sheet presents the epidemiological profile and pattern of cancer in Tamil Nadu, based on findings from the report on Cancer incidence and mortality (2016), incidence trend (2012-2016) and estimates (2017-2020) for Tamil Nadu State.^[3] In addition, related information on the socio-demographic profile, health status indicators and health infrastructure is also presented. These have a significant bearing on the occurrence and outcome of cancer.

Methodology used in cancer profile description

The cancer statistics presented in Section I are described in terms of cancer incidence, cumulative risk, leading sites of cancer and proportion of cancers in sites associated with tobacco use for 2016 for the entire state. Cancer incidence and cumulative risk are defined as-

- (i) *Cancer incidence*
 - Crude incidence rate: The number of new cancers per 100,000 persons
 - Age adjusted incidence rate: The incidence rate a population would have if that population had a standard age structure. It is expressed as the number of new cancer cases per 100,000 population using world standard population.
 - Age specific incidence rate: The number of new cancers per 100,000 persons in a specific age category.
 - Cancer incidence rates for childhood cancers are expressed as per million.
- (ii) *Cumulative risk* : Cumulative risk (probability that an individual will be diagnosed with cancer [0 to 74 year old age group] in the absence of any competing cause of death and assuming that the current trends prevail over time).

Projected Incidence of cancer cases are given for the state for the year 2020 by gender.

I. CANCER PROFILE

A. DESCRIPTION OF THE TAMIL NADU CANCER REGISTRY PROJECT IN TAMIL NADU

Population Based Cancer Registry- Reports on cancer incidence in a defined geographic area

Location	Cancer Institute (WIA), Adyar, Chennai
Establishment Year	Chennai- 1981; Tamilnadu - 2012
Coverage Area	Tamil Nadu state
Area (in Sq.km)	130060
Urban & Rural (%)	1:1.07

Hospital Based Cancer Registry: Reports on the clinical profile of patients availing of care at a specific hospital

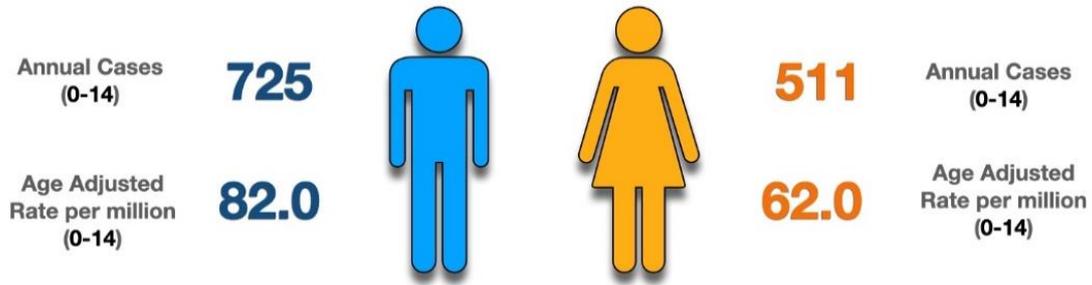
Number of Hospitals: 12	<ul style="list-style-type: none"> • Cancer Institute (WIA), Chennai • Erode Cancer Centre, Thindal, Erode • International Cancer Centre, Neyyoor • Institute of Obstetrics and Gynaecology, Chennai • Govt Arignar Anna Memorial Cancer Hospital & Research Institute, Kanchipuram • G Kuppaswamy Naidu Memorial Hospital, Coimbatore • Government Royapettah Hospital, Chennai • Government Stanley hospital, Chennai • Kovai Medical Centre and Hospital, Coimbatore • Madras Cancer Care Foundation, Chennai • Madras Medical College, Chennai • Tamil Nadu Government Multi Super Specialty Hospital, Chennai
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B. CANCER INCIDENCE AND RISK

Annual number of Incidence and rates per 100,000 of all ages (2016)



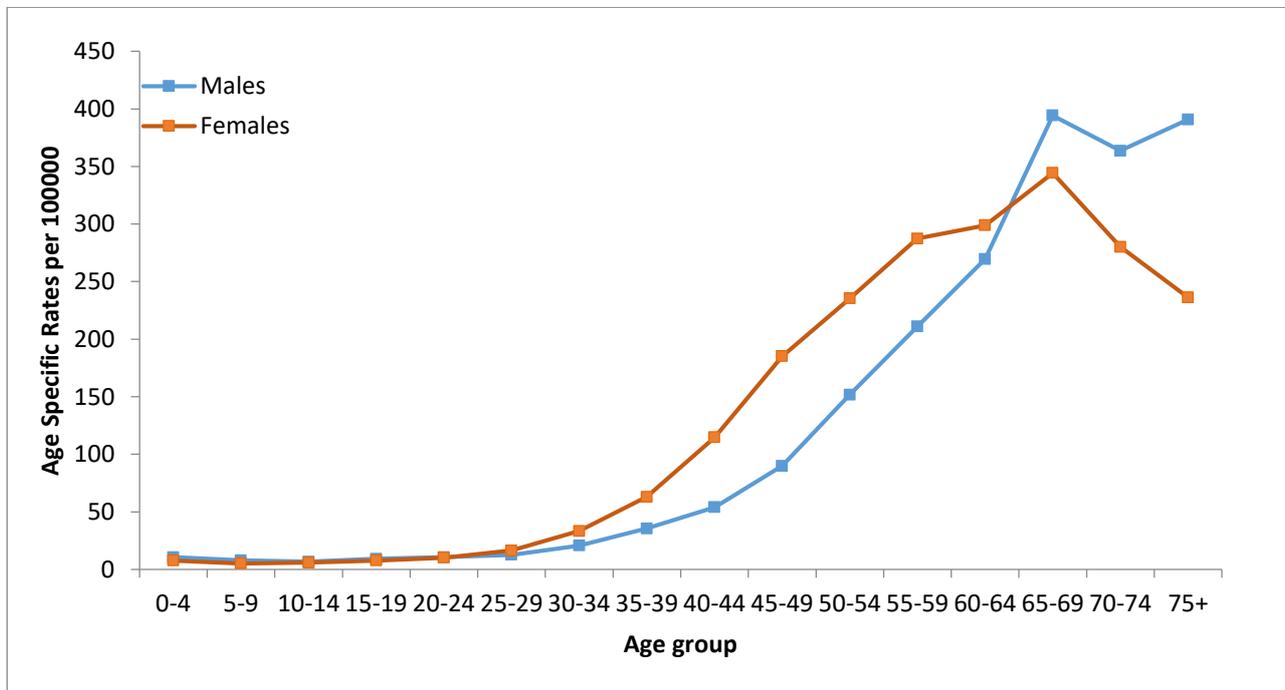
Age adjusted Incidence rates of childhood cancers per million



Cumulative risk of developing cancer of any site in 0-74 years of age group

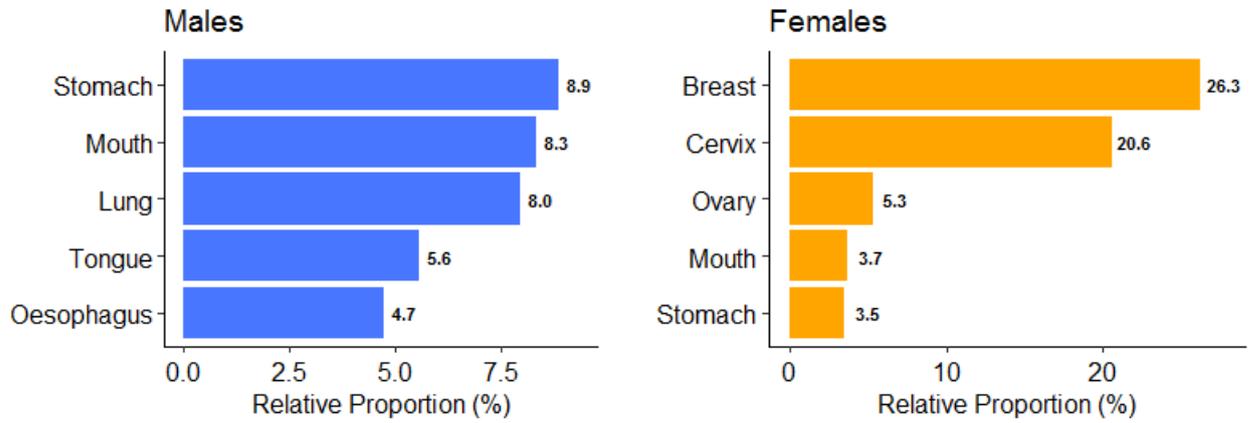


Age Specific Incidence Rates (All sites of Cancer - 2016)

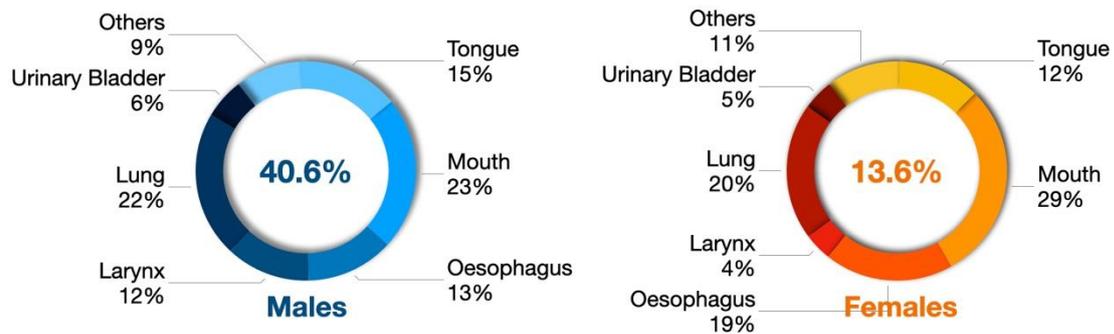


C. Leading Cancer Sites

Five Leading Sites of Cancers

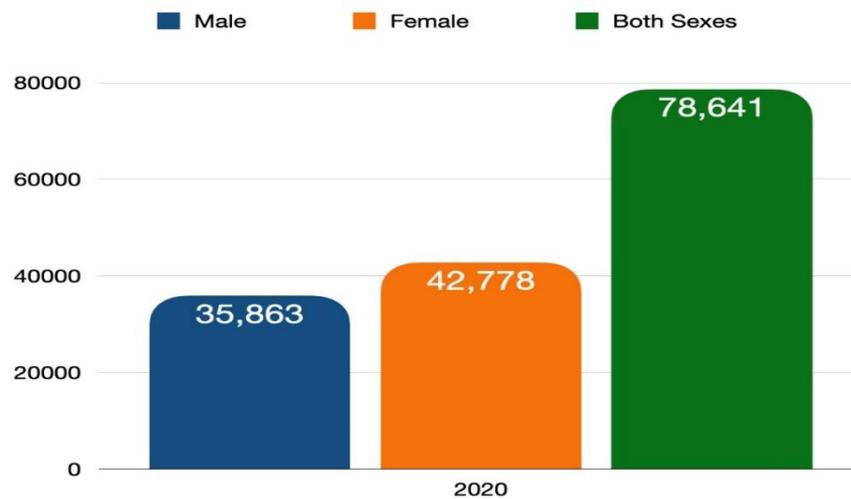


Proportion (%) of Cancer Sites associated with the use of tobacco



Others - Lip, Other oropharynx, Hypopharynx, and Pharynx Unspecified

D. Projected Incidence of cancer cases for 2020



II. CANCER RELATED INFORMATION

A. Socio-demographic profile ^[4]

(a) Population	Total	7,21,47,030
	Males	3,61,37,975
	Females	3,60,09,055
	Gender Ratio	996
(b) Literacy Rate	Total	80.1 %
	Males	86.8 %
	Females	73.4 %

B. Health Indicators

(a) Life Expectancy (2016) ^[5]	Males	68.9 years
	Females	73.5 years
(b) Proportion of total disease burden from NCDs' ^[5]		65.3 %
(c) Proportion of NCDs' Medically Certified Deaths – Neoplasms ^[6]		3.0 %
(d) Prevalence of cancer related risk factors	Prevalence of current tobacco use (smoking and/or smokeless)-in adults over 15 years of age ^[7]	
	Total	20.0 %
	Males	31.0 %
	Females	9.3 %
Prevalence of alcohol use in males and females (age 15-49 years) ^[8]		
	Males	46.7 %
	Females	0.4 %
Proportion of consumption of dark green leafy vegetables at least once a week in males and females from 15 to 49 years of age ^[8]		
	Males	93.1 %
	Females	92.9 %
Proportion of consumption of fruits at least once a week in males and females from 15 to 49 years of age ^[8]		
	Males	70.6 %
	Females	59.9 %
Proportion of households using clean fuel for cooking ^[8]		
		73.0 %
Proportion of households reporting exposure to second hand smoke ^[8]		
		33.6 %
Proportion of overweight/obesity in males and females (age 15-49 years) ^[8]		
	Males	28.2 %
	Females	30.9 %
(e) Prevalence of other NCDs' ^[8]	Hypertension (age 15-49 years)	
	Males	17.6 %
	Females	11.5 %

Raised random blood glucose level (age 15-49 years)

Males	7.1 %
Females	9.7 %

C. Health Infrastructure

(a) Government health facilities ^[9]	
• Sub-centres + Health and Wellness Centres – Sub Centres (HWC-SCs)	10896
• Primary Health Centres + Health and Wellness Centres - Primary Health Centres (HWC-PHCs)	1885
• Community Health Centres	400
• District hospitals	31
(b) Number of medical colleges ^[10]	52
(c) Regional / Tertiary Cancer Care Centres ^{[11],[12]}	
▪ Regional Cancer Institute (WIA), Adyar, Chennai (RCC*/SCI**)	
▪ Govt. Arignar Anna Memorial Cancer Hospital & Research Institute, Kanchipuram*	
(d) State Government Health Schemes ^[13]	
▪ Chief Minister's Comprehensive Health Insurance Scheme (PMJAY-CMCHIS)	

*Regional Cancer Centre

**State Cancer Institute

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