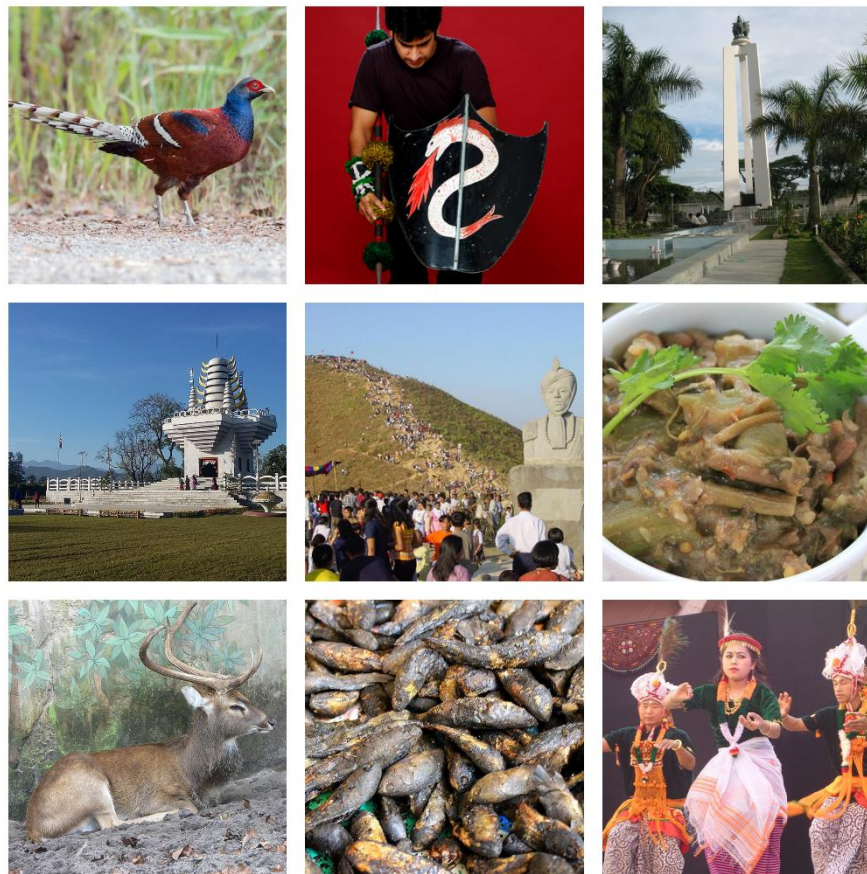




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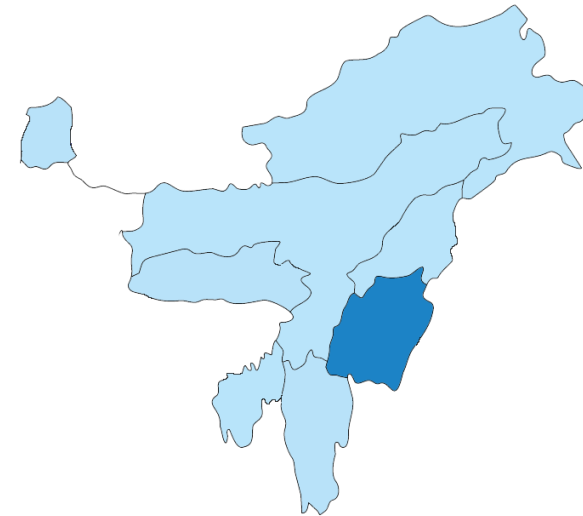


Chapter 4: Cancer and health status profile of Manipur

A. Health Status Profile

4.1 Socio-demographic profile [1]

Population (Total)	2855794
Number of males	1438586
Number of females	1417208
Sex Ratio	985
Major ethnic groups	Meitei, Kuki, Tangkhu
Literacy rate (%)	
Total	76.9
Males	83.6
Females	70.3



The total population of the region is 2855794, with a sex ratio of 985. The total literacy rate is 76.9%, being 83.6% in males and 70.3% in females. The major ethnic groups include Meitei, Kuki and Tangkhu.



4.2. NCD related Risk factor profile

Behavioural and lifestyle-related							
Tobacco use ^[2]							
Current tobacco use-smoked and/or smokeless (age 15 years and above) (%)							
Total						55.1	
Males						62.5	
Females						47.8	
Current smoked tobacco users (age 15 years and above) (%)							
Total						20.9	
Males						35.9	
Females						6.0	
Current smokeless tobacco users (age 15 years and above) (%)							
Total						47.7	
Males						50.2	
Females						45.2	
Alcohol consumption							
	Urban		Rural		Total		
	Men	Women	Men	Women	Men	Women	
age 15 years and above (%) ^[13]	34.6	1.0	39.2	0.8	37.5	0.9	
Metabolic risk factors ^[13]							
Overweight/Obese BMI >25kg/m ² (age 15-49 years) (%)	33.4	39.0	27.9	31.0	30.3	34.1	
Raised blood pressure age 15 years and above (%)	37.5	26.0	30.4	21.1	33.2	23.0	
Raised blood glucose (random) age 15 years and above (%)	19.2	16.0	14.7	12.1	16.5	13.6	
Air Pollution, DALYs per 100,000 ^[3]	2492.3						

The prevalence of current tobacco use is 55.1 %, higher for the smokeless form (47.7%) than the smoked form (20.9%). The DALYs' due to air pollution is reported to be 2492.3 per 100,000. Over one-third, (37.5%) of males over the age of 15 years consumed alcohol, while the proportion of alcohol use in females was negligible. Over one-third of the women in the age group of 15-49 years are obese (34.1%), which is slightly higher than the prevalence in males (30.3%). A higher proportion of males (33.2%) above 15 years of age have raised blood pressure than females (23.0%). The prevalence of raised blood glucose (random) is 13.6% in women and 16.5% in males.



4.3 Mortality related statistics

Life expectancy (2016) ^[5]	
Males	68.0 years
Females	72.8 years
Leading causes of death ^[6]	
Major Cause Group	Percentage
Circulatory System	23.5
Symptoms, Signs & Abnormal Findings	15.4
Respiratory System	9.7
Certain Infectious & Parasitic Diseases	9.0
Endocrine, Nutritional and Metabolic diseases	7.2
Status of Medical certification of cause of death ^[6]	
Percentage of Medically Certified Deaths to Total Registered Deaths (%)	51.4
Medical Institutions covered under MCCD	38
Medical Institutions Reported MCCD Data as per the National List	16
Ranking of States/UTs in the medical certification of cause of death 2018	10

The life expectancy is marginally higher in females (72.8 years) than males (68.0 years). Circulatory system causes comprise the leading cause of death (23.5%). The percentage of medically certified deaths to total registered deaths is 51.4%. The state ranks tenth in the medical certification of cause of death.



4.4 Health seeking behaviour and health practices [13]

	Urban	Rural	Total
History of cancer screening			
Women age 30-49 ever undergone a breast examination for breast cancer (%)	2.2	1.1	1.6
Women age 30-49 ever undergone an oral cavity examination for oral Cancer (%)	2.0	0.3	1.0
Women age 30-49 ever undergone screening for cervical Cancer (%)	2.5	1.9	2.1
Men age 30-49 ever undergone an oral cavity examination for oral Cancer (%)	1.1	0.6	0.8
Immunization history			
Children age 12-23 months who have received 3 doses of penta or hepatitis B vaccine (%)	87.5	76.5	80.0
Household profile			
Population living in households that use an improved sanitation facility (%)	60.6	67.5	64.9
Households using clean fuel for cooking (%)	86.4	60.7	70.4
Households with any usual member covered under a health insurance/financing scheme (%)	12.3	15.3	14.2

The proportion of women who have undergone screening is 1.6% for breast cancer, 1.0% for oral cancer and 2.1% for cervical cancer. Only 0.8 % of men had a history of screening for oral cancer. As many as 80.0 % of children in 12-23 months had received immunization with Penta and hepatitis B vaccine. About 64.9% of the population is living in households that use an improved sanitation facility—over two-thirds (70.4%) of the population are using clean fuel for cooking. The coverage with a health insurance scheme or financing scheme is low at a figure of 14.2%.



4.5 Status of the health system

A. Public sector health facilities ^{[7],[8]}	Number
Sub Centres (SC)	429
Health and Wellness centre - Sub centre (SC-HWC)	61
Primary Health Centres (PHC)	94
Health and Wellness Centre - Primary Health Centre (PHC-HWC)	05
Community Health Centres (CHC)	23
Sub-district Hospitals (SDH)	01
District Hospitals (DH)	09
Number of government allopathic doctors and dental surgeons	389
B. Tertiary health care facilities	
Medical Colleges ^[9]	02
State cancer institute ^[10]	00
Tertiary cancer care centre ^[10]	00
Regional cancer care centre ^[11]	01
C. State government health scheme ^[15]	Chief Minister-gi Hakshelgi Tengbang (CMHT)

The state has 429 SCs', 61SC HWCs', 94 PHCs', 05 PHC HWCs', 23 CHCs', 01 sub-district and 09 district hospitals. There are two medical colleges and one Regional Cancer Centre. The state has a government health scheme known as Chief Minister-gi Hakshelgi Tengbang (CMHT).



B. Profile of Cancer

4.6 Details of Cancer Registries in the State

Population Based Cancer Registry	
Location	Regional Institute of Medical Sciences, Imphal
Established Year	2003
Coverage Area	Imphal west district from 2003 upto 2004; Manipur state coverage from 2005.
Sources of registration	17
Area (in Sq.km)	22327
Urban & Rural (%)	29.2 & 70.8
Hospital Based Cancer Registries: 1. Regional Institute of Medical Sciences, Imphal 2. Jawaharlal Nehru Institute of Medical Science, Imphal	

The State has one PBCR and two HBCRs'. The PBCR is located in Regional Institute of Medical Sciences, Imphal and has 17 sources of registration.

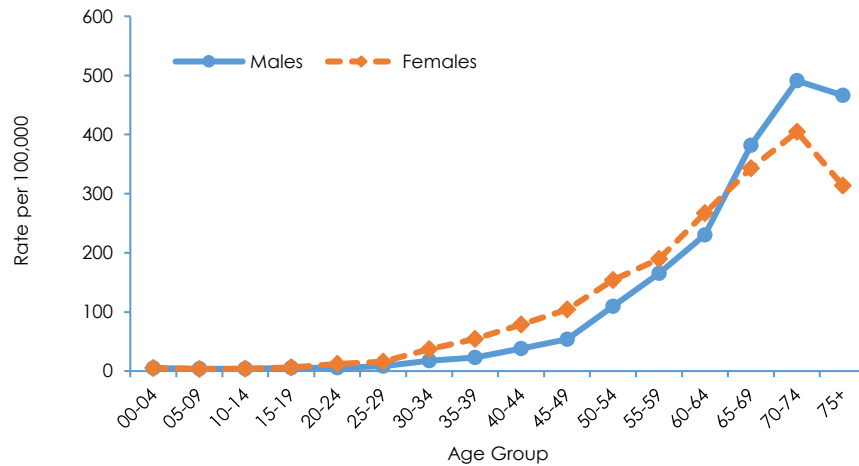
4.7 Number of cancer cases and Age-Adjusted Incidence Rate (AAR) per 1,00,000 population

Gender	Number of New Cancer Cases	AAR
Males	3702	62.8
Females	4500	71.1

The AAR is higher in females (71.1 per 100,000 females) than males (62.8 per 100,000 males)



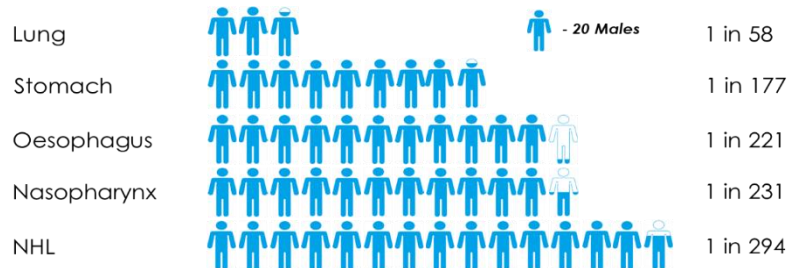
4.8 Age Specific Incidence Rate (ASpR)



The Age-Specific Incidence Rates in both the genders shows a rise from 30-34 years age-group onwards. The highest Age-Specific Incidence Rate is seen in the 70-74 years age-group in males and females.

4.9 Probability of One in number of Persons developing cancer in 0-74 years age

Males



Females

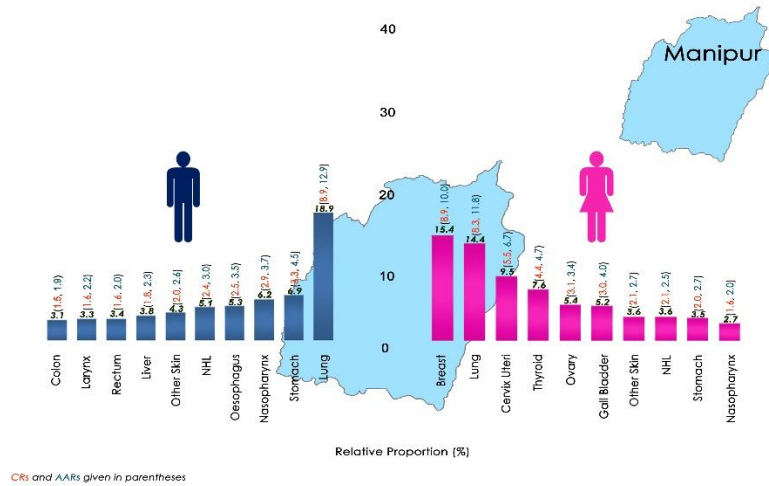


The probability of developing lung cancer is highest in both the genders (1 in every 58 males and 1 in every 63 females), followed by stomach cancer in males (1 in every 177 males) and breast cancer in females (1 in every 95 females).





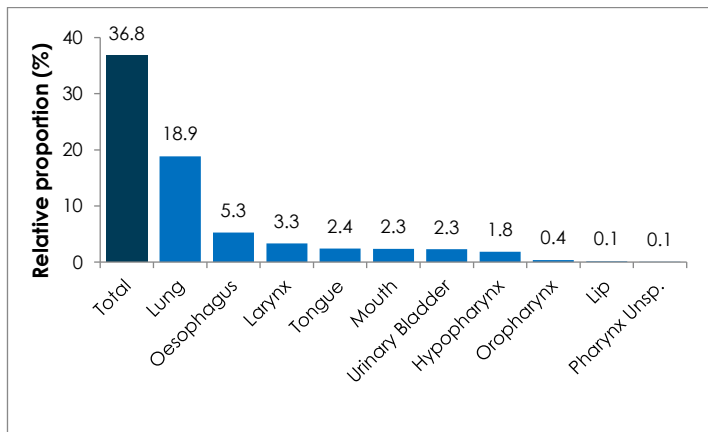
4.10 Leading Anatomical Sites of Cancer



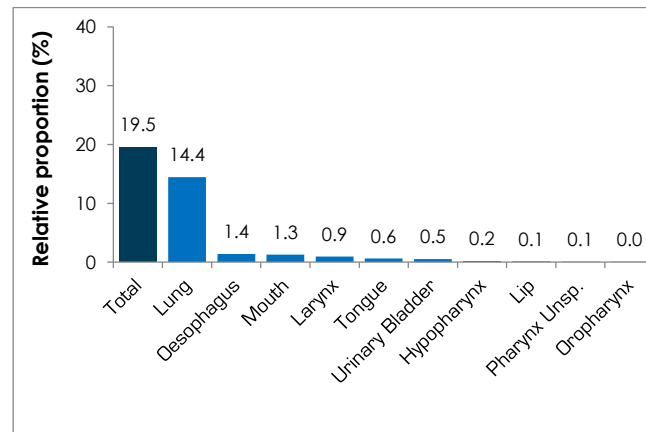
Among males, the proportion of lung cancer (18.9%) is the most, followed by stomach cancer (6.9%) and cancer of the nasopharynx (6.2%). In females, the breast is a leading cancer site (15.4%) followed by lung (14.4%) and cervix uteri (9.5%).

4.11 Relative Proportion (%) of Cancer Cases Associated with the Use of Tobacco

Males



Females



Over a third (36.8%) of cancers in males and close to one-fifth (19.5%) in females are tobacco use related cancer sites. Among these, lung (18.9 % in males; 14.4% in females) followed by oesophagus (5.3% in males; 1.4% in females) constitute the leading sites.





4.12 Distribution of cancers according to ethnicity

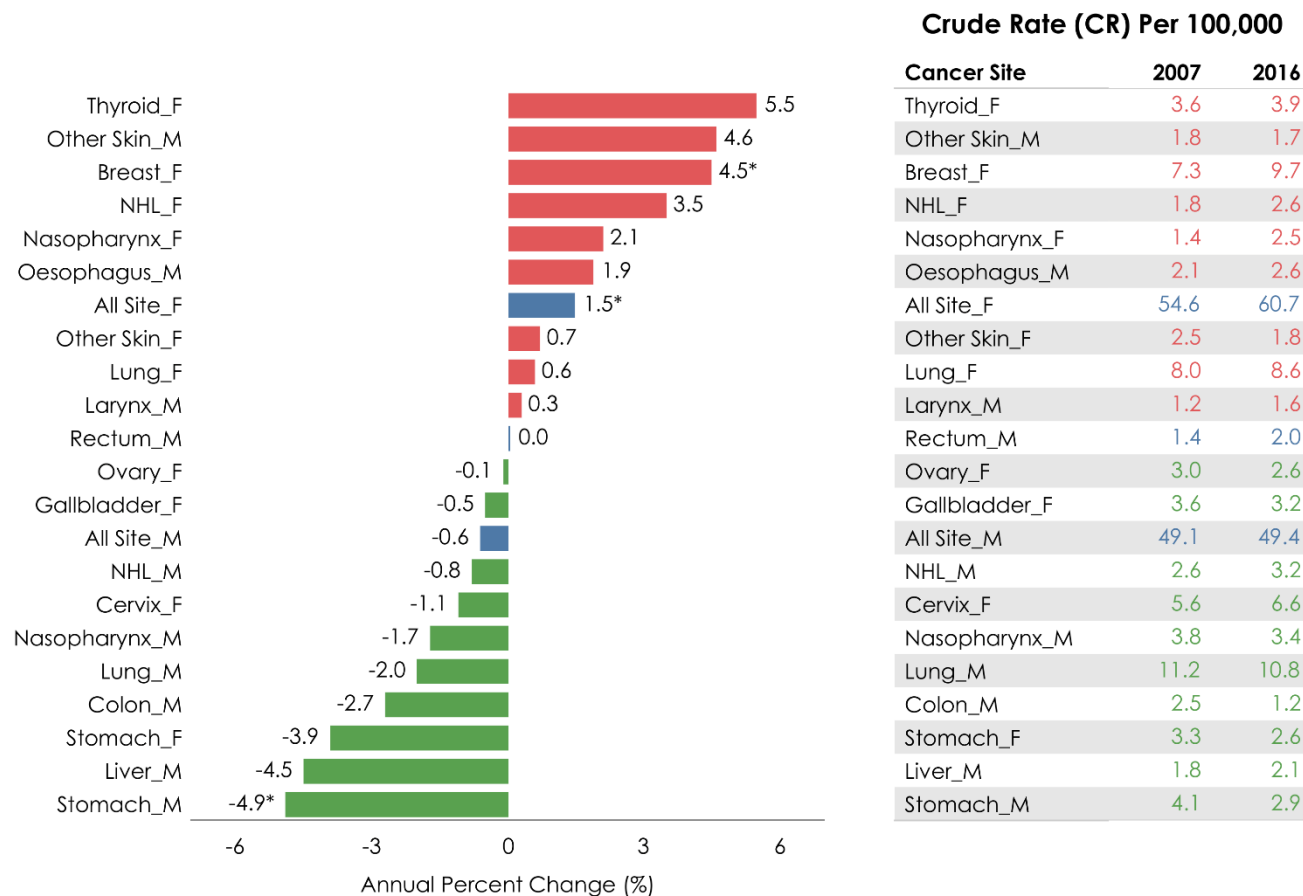
Name of Ethnic Group	Number	%
Meitei	4788	58.4
Kuki	711	8.7
Tangkhul	460	5.6
Rongmei	274	3.3
Paite	209	2.5
Hmar	170	2.1
Nepalese	140	1.7
Naga	126	1.5
Mao	96	1.2
Anal	81	1.0
Others	523	6.4

Total may not be 100%, because unspecified/unknown ethnic group cases are excluded.

Among all the ethnic groups, over half (58.4%) of cancer cases occur in the Meitei ethnic group.



4.13 Trends over time in cancer incidence



Increase in APC, Decrease in APC, Increase or Decrease in APC for All Sites; * Significant Increase or Decrease at 95% Confidence Level

There is a significant increase in annual percent change for cancer in all sites among females (APC=1.5), while for males-a significant decline has been witnessed the APC (-0.6). The rise in breast cancer incidence (APC=4.5) is observed in females, while among males, there has been a significant decrease in stomach cancer APC (-4.9).





4.14 Case-Fatality Ratio:

Case Fatality Ratio (CFR)			
Manipur state	Incident cancer cases	Deaths	CFR%
Males	3702	1155	31.2
Females	4500	1008	22.4
Total	8202	2163	26.4

The total case fatality ratio is 26.4%, higher in males (31.2%) than females (22.4%).

Key Observations

- The cancer incidence rate and rise are higher for females than males.
- The incidence of cancers of the thyroid, breast and lung are showing an increasing trend in females.
- The lung is the first leading cancer site in males and second-leading site in females.
- Among males, about two-third are current tobacco users, while 35.9% are current smokers; one third are overweight/obese and hypertensive.
- Nearly half of the females are current tobacco users, while overweight and obesity are prevalent in about one-third of the female population.
- The cause in half of the deaths is medically certified.
- One-tenth of the population is covered under an insurance scheme.