



MIZORAM



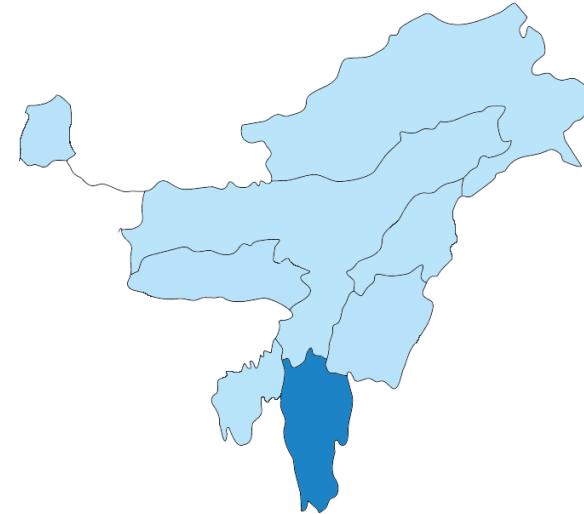


Chapter 6: Cancer and health status profile of Mizoram

A. Health Status Profile

6.1 Socio-demographic profile [1]

Population (Total)	1097206
Number of males	555339
Number of females	541867
Sex Ratio	976
Major ethnic groups	Mizo
Literacy rate (%)	
Total	91.3
Males	93.4
Females	89.3



The total population of the region is 1097206, with a sex ratio of 976. The total literacy rate is 91.3%, being 93.3% in males and 89.3% in females.



6.2 NCD related Risk factor profile

Behavioral and lifestyle-related							
Tobacco use ^[2]							
Current tobacco use-smoked and/or smokeless (age 15 years and above) (%)							
Total						58.7	
Males						64.9	
Females						52.4	
Current smoked tobacco use (age 15 or above) (%)							
Total						34.4	
Males						54.1	
Females						14.3	
Current smokeless tobacco use (age 15 or above) (%)							
Total						33.5	
Males						21.3	
Females						46.0	
Alcohol consumption							
	Urban		Rural		Total		
	Men	Women	Men	Women	Men	Women	
age 15 years or above (%) ^[13]	22.8	1.0	25.2	0.8	23.8	0.9	
Metabolic risk factors ^[13]							
Overweight/Obese BMI >25 s (age 15-49 years) (%)	38.3	29.7	24.2	16.9	31.9	24.2	
Raised blood pressure age 15 years or above (%)	28.7	21.0	21.1	13.5	25.2	17.7	
Raised blood glucose (random) age 15 years or above (%)	16.4	15.0	14.3	12.3	15.4	13.8	
Air Pollution, DALYs per 100,000 ^[3]	2003.7						

The prevalence of current tobacco use is 58.7%, slightly higher for the smoked form (34.4%) than the smokeless form (33.5%). The DALYs' due to air pollution is reported to be 2003.7 per 100,000. 23.8% of males over the age of 15 years consumed alcohol, while the proportion of alcohol use in females was negligible. Close to one-third of the men (31.9%) in the age group of 15-49 years are obese, higher than female prevalence (24.2%). A higher proportion of males (25.2%) have raised blood pressure than females (17.7%). The prevalence of raised blood glucose is 13.8% in women and 15.4% in men.



6.3 Mortality related statistics

Life expectancy (2016) ^[5]	
Males	68.3
Females	73.8
Leading causes of death (MCCD 2018) ^[6]	
Major Cause Group	Percentage
Diseases of the circulatory system	16.0
Certain infections and parasitic infestations	15.3
Diseases of the respiratory system	13.2
Neoplasms	12.5
Certain conditions originating in the perinatal period	5.3
Status of Medical certification of cause of death ^[6]	
Percentage of Medically Certified Deaths to Total Registered Deaths (%)	58.9
Medical Institutions covered under MCCD	--
Medical Institutions Reported MCCD Data as per the National List	108
Ranking of States/UTs in the medical certification of cause of death 2018	8

The life expectancy is marginally higher in females (73.8 years) than males (68.3 years). Diseases of the circulatory system account for 16.0% of the deaths the percentage of medically certified deaths to total registered deaths is 58.9%. The state ranks eighth in the medical certification of cause of death.



6.4 Health seeking behavior and health practices ^[13]

	Urban	Rural	Total
History of cancer screening			
Women aged 30-49 ever undergone a breast examination for breast cancer (%)	3.6	1.3	2.7
Women aged 30-49 ever undergone an oral cavity examination for oral Cancer (%)	1.4	0.3	0.9
Women aged 30-49 ever undergone screening for cervical cancer (%)	9.4	3.3	6.9
Men aged 30-49 ever undergone an oral cavity examination for oral Cancer (%)	0.2	2.4	1.2
Immunization history			
Children aged 12-23 months who have received 3 doses of penta or hepatitis B vaccine (%)	74.6	78.1	76.4
Household profile			
Population living in households that use an improved sanitation facility (%)	97.1	93.2	95.3
Households using clean fuel for cooking (%)	97.9	66.4	83.8
Households with any usual member covered under a health insurance/financing scheme (%)	41.2	52.8	46.4

The proportion of women who have undergone screening is 2.7% for breast cancer, 0.9 % for oral cancer and 6.9% for cervical cancer. Only 1.2% of men had a history of screening for oral cancer. As many as 76.4% of children in 12 to 23 months had received immunization with Penta and hepatitis B vaccine. About 95.3% of the population lives in households that use an improved sanitation facility, 83.0% 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 46.4%.



6.5 Status of the health system

A. Public sector health facilities ^{[7],[8]}	Number
Sub centres (SC)	370
Primary Health Centres (PHC)	65
Health and Wellness Centre - Primary Health Centre (HWC-PHC)	04
Community Health Centres (CHC)	9
Sub-District Hospitals (SDH)	02
District Hospitals (DH)	09
Number of government allopathic doctors and dental surgeons	138
B. Tertiary health care facilities	
Medical Colleges ^[9]	01
State cancer institute ^[10]	00
Tertiary cancer care centre ^[10]	01
Regional cancer care centre ^[11]	01
C. State government health scheme ^[17]	Mizoram State Health Care Scheme (MSHCS)

The state has 370 SCs, 65 PHCs', 04 HWC – PHCs', 09 CHCs', 02 SDHs and 09 DHs. There is only one medical college, one Tertiary Cancer Care Center and Regional Cancer Centre. The state implements health scheme known as Mizoram State Health Care Scheme (MSHCS).



B. Profile of Cancer

6.6 Details of Cancer Registries in the State

Population Based Cancer Registry	
Location	Civil Hospital, Aizawl
Established Year	2003
Coverage Area	Mizoram state
Sources of registration	37
Area (in Sq.km)	21087
Urban & Rural (%)	52.1 & 47.9
Hospital Based Cancer Registries : 1. Mizoram State Cancer Institute (Civil Hospital), Aizawl 2. Zoram Medical College, Aizawl	

The Population Based Cancer Registry is located at Civil Hospital, Aizawl and covers the entire state through 37 sources of registration.

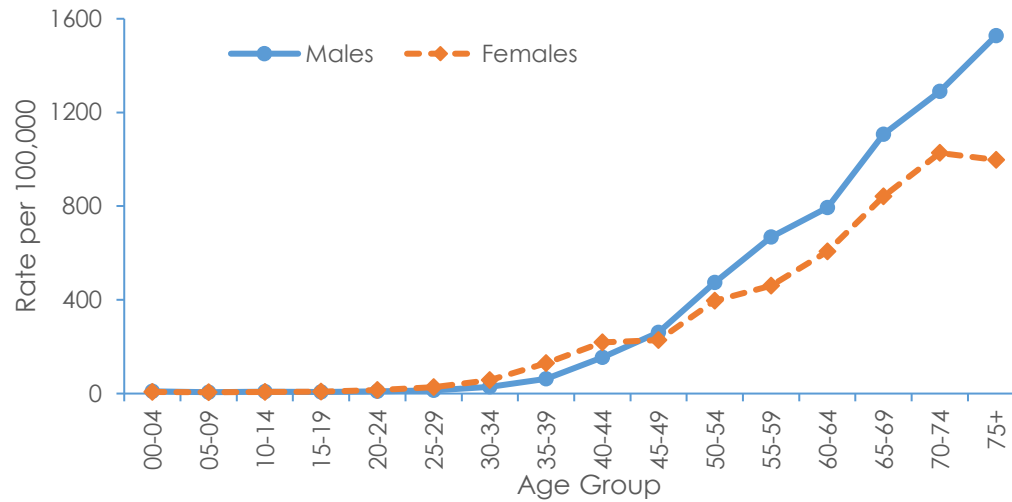
6.7 Number of cancer cases and Age Adjusted Incidence Rate (AAR) per 100,000 population

Gender	Mizoram state		Aizawl District	
	Number of New Cancer Cases	AAR	Number of New Cancer Cases	AAR
Males	4323	207.0	2180	269.4
Females	3736	172.3	1900	214.1

In Mizoram state, the AAR is higher in males (207.0 per 100,000 males) than females (172.3 per 100,000 females). Similarly, in Aizawl district, a higher AAR has been reported in males (269.4 per 100,000 males) in comparison to females (214.1 per 100,000 females).



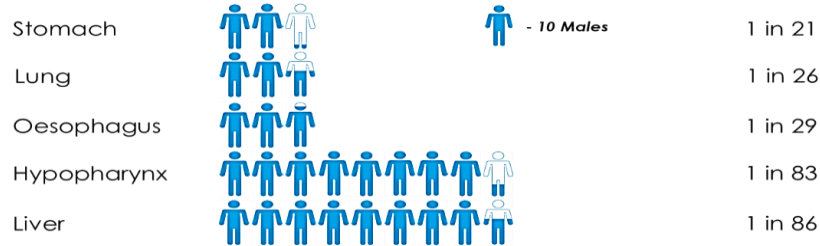
6.8 Age Specific Incidence Rate (ASpR)



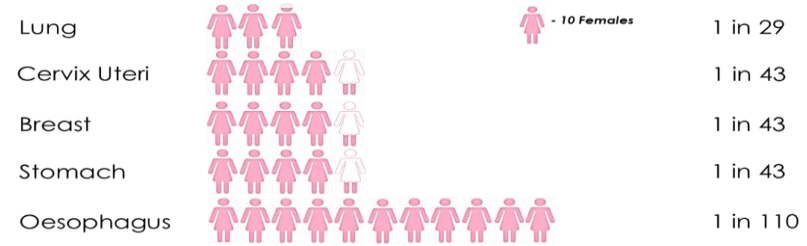
The Age-Specific Incidence Rates in both the genders show a rise from 30-34 years age-group onwards. In males, the highest Age-Specific Incidence Rate is seen at 75+ years while in females, the incidence is highest in the 70 to 74 years age group.

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

Males



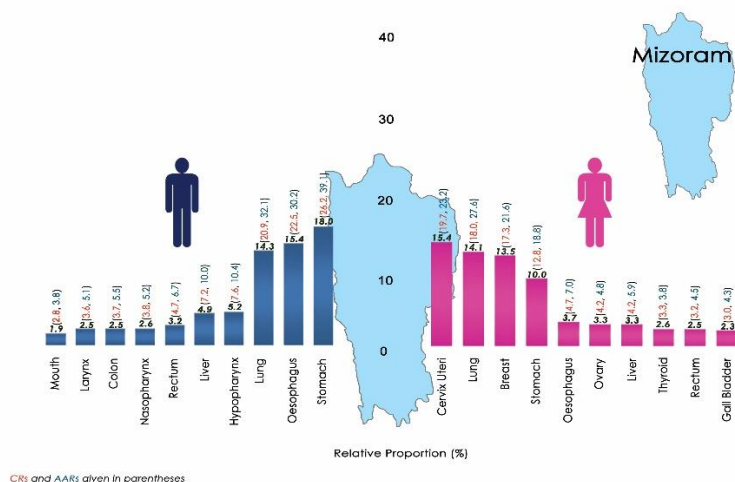
Females



In males, the probability of developing stomach cancer is the highest (1 in every 21 males), followed by lung cancer (1 in every 26 males) and oesophageal cancer (1 in every 29 males). In females, the probability of developing lung cancer is highest (1 in every 29 females) followed by cancer of cervix uteri, breast cancer and stomach cancer (1 in every 43 females).



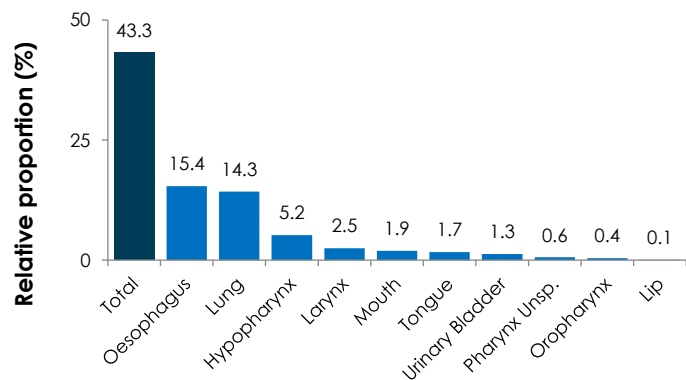
6.10 Leading Anatomical Sites of Cancer



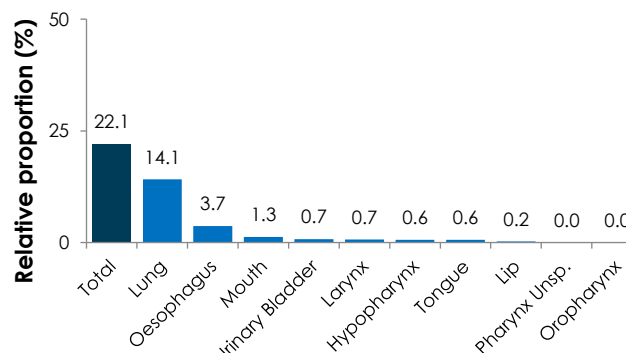
The proportion of stomach cancer (18.0%) is the highest among males, followed by cancer of the oesophagus (15.4%) and lung cancer (14.3%). In Females, Cervix uteri is a leading cancer site (15.4%) followed by lung (14.1%) and breast (13.5%).

6.11 Relative Proportion (%) of Cancer Sites Associated with the Use of Tobacco

Males



Females



Over one third (43.3 %) of cancers in males and close to one-fourth (22.1%) in females are tobacco use related cancer sites. Among these, lung (males-14.3%, females-14.1%) and oesophagus (males-15.4%, females-3.7%) are leading sites in both the genders.

6.12 Distribution of cancers according to Ethnicity





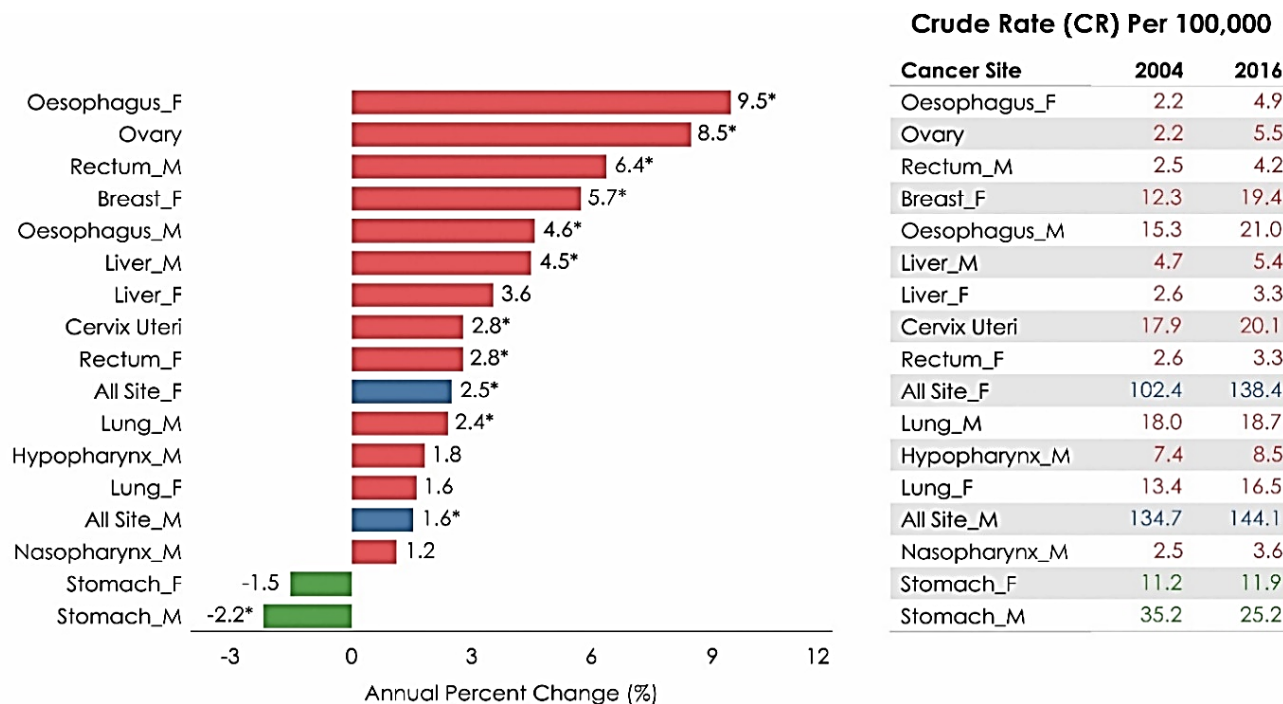
Name of Ethnic Group	Number	%
Mizo	7496	93.0
Anal	128	1.6
Chakma	121	1.5
Mara	92	1.1
Others	144	1.8

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

Among all the ethnic groups, 93.0% of cancer cases occur in the Mizo ethnic group.



6.13 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

Annual Percent Change (APC) in cancer incidence for all sites is observed to be 1.6% in males and 2.5% in females from 2004 to 2016. In females, an increasing trend has been observed for cancer of oesophagus, ovary, breast, liver, cervix uteri, rectum and lung, whereas stomach cancer has shown a decline. Among males, cancer of rectum, oesophagus, liver, lung, hypopharynx and nasopharynx show an increasing trend, whereas stomach cancer is declining.





6.14 Case Fatality Ratio:

Case Fatality Ratio (CFR)			
Mizoram state	Incident cancer cases	Deaths	CFR%
Males	4323	2492	57.6
Females	3736	1566	41.9
Total	8059	4058	50.4
Aizawl district			
Males	2180	1216	55.8
Females	1900	757	39.8
Total	4080	1973	48.4

The total case fatality ratio (CFR) is 50.4%, being higher in males (57.6 %) compared to females (41.9%) in Mizoram state. In Aizawl district, total CFR is 48.4 %, higher in males (55.8%) than in females (39.8%).

Key observations

- Cancer ranks among the top five leading causes of death in the state.
- There is a significant increase in oesophageal cancer and rectal cancer in both genders.
- The increase in incidence for lung and liver cancer is substantial in males, and for ovary, breast and cervical cancer in females.
- The incidence of stomach cancer has declined over time.
- Close to two-thirds of males and half of the females are current tobacco users.
- About a quarter of the men consume alcohol, about one third are overweight or obese, and one fourth are hypertensive.
- The cause of more than half of the deaths are medically certified.